The Virtual Learning Commons

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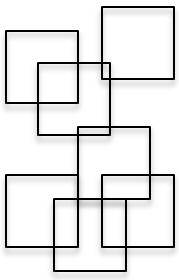
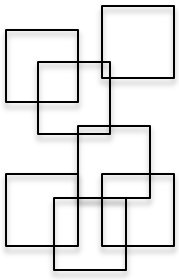


The Virtual Learning Commons
Building a Participatory School Learning Community

By

David V. Loertscher
Carol Koechlin
Esther Rosenfeld



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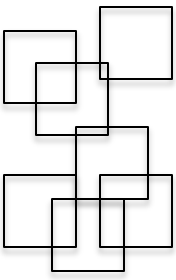
In Appreciation

Over several years, the students at San Jose State University have pioneered the development of the Virtual Learning Commons in real schools using a variety of technologies. It is from their creativity and critical thinking that much progress has been made, not only in theory, but also in practice and proof of concept. Our appreciation for their partnership and leadership in this momentum is a testimony to their preparedness to move their Learning Commons to the center of teaching and learning.

Also, the authors would like to express appreciation to Anita Brooks Kirkland, who has done a great deal of exploration of the Virtual Learning Commons at the district level, and who has excellent knowledge of the design principles that appear in this book. Anita is an Educational Consultant, K-12 Libraries, Information Technology Services, at Waterloo Region District School Board.

We also wish to recognize the devoted professionals at InfOhio under the direction of Teresa Fredericka who have pushed the idea of Learning Commons at the state level from their home in Columbus, Ohio. They are serving as a model of what can be accomplished across a state or province, and have inspired us in their creativity and outreach to not only the teacher librarian community but to all education in their state.



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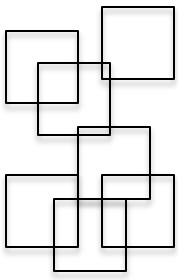


Introduction

This book is a companion to and an extension of, *The New Learning Commons Where Learners Win* 2nd ed. published in 2011. In that volume, we presented the idea that the school library and computer lab be merged into a single entity in the school, and that this new place be reinvented from the ground up in order to become a giant collaborative.

In the past year as we have watched Learning Commons develop around North America, we have discerned the need to elaborate on the virtual part of the Learning Commons that would replace the often bypassed school library website.

Our contribution is brief by design. It is what we hope is just enough of a spark to get you, the reader's, imagination going. In the first part, we lay out the foundational ideas of what a giant participatory Virtual Learning Commons could contribute to teaching and learning in the school. Then, using Google Sites as just one possible tool, we guide the reader to download our free template and get started.

The last few chapters of the book deal with some of the important additional issues that are sure to come up as a school launches a grand experiment. We hope that the reader will be as excited by the possibilities as we are. Education across the world is changing, and we hope that the Virtual Learning Commons will be the vehicle to help both young people and adults learning to work in a global community. It is time to focus on building young people who are in charge of their own learning; a habit that will serve them their entire lives.

As authors, we appreciate feedback on our work. You may email your comments and recommendations to David Loertscher at: reader.david@gmail.com

Chapter 1

What is the Virtual Learning Commons and Why Does it Matter?

Consider a Changed Culture

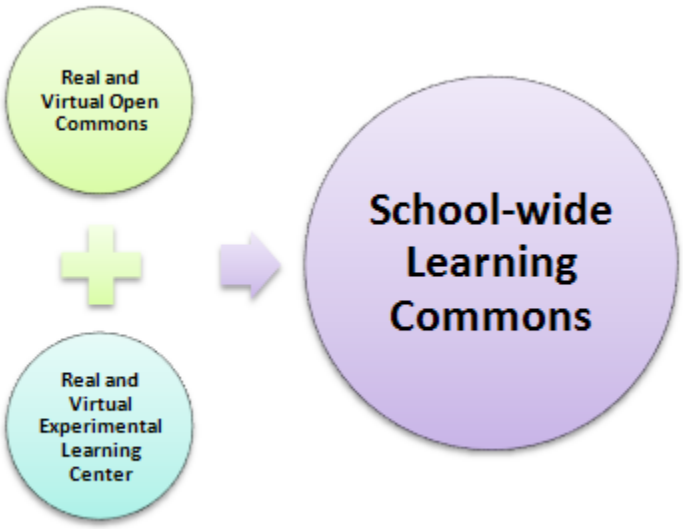
To understand the potential of the Virtual Learning Commons one needs to both understand the urgency of the current crisis in education, and to embrace the future with resolve.

In recent years, leading futurists and educators have consistently called for reform in education in response to the profound global impact of rapid technological and economic changes. The international education expert, Ken Robinson, believes that revolutionary changes are needed in current education systems and provides the historical and pedagogical context supporting his assertion in an animated TED – Ed video, Changing Education Paradigms, available at http://www.ted.com/talks/lang/en/ken_robinson_changing_education_paradigms.html or Tiny url: http://tinyurl.com/99r4luy. Robinson calls for a radical change in the culture of educational institutions for a start, both in the 'habits' of education in schools and in the 'habitats' they occupy.

As you explore this book we invite you to consider how the Learning Commons approach to teaching and learning leads to the shifts schools need to make, and how the Virtual Learning Commons in particular can drive this needed change.

What is a Learning Commons?

A Learning Commons is a common, or shared, learning 'space' that is both physical and virtual. It is designed to move students beyond mere research, practice, and group work to a greater level of engagement through exploration, experimentation, and collaboration. A Learning Commons is more than a room or a website. A Learning Commons allows users to create their own environments to improve learning. A Learning Commons is about changing school culture, and about transforming the way learning and teaching occur.



This diagram illustrates the conceptual construction of the Learning Commons. The **Open Commons** includes both the physical and virtual spaces where learners meet in order to read, to conduct research, to test out ideas with others, and to work creatively in order to share their new understandings.

The **Experimental Learning Center** is literally the center of school improvement: the physical and virtual space where administrators and faculty may conduct action research and refine new teaching approaches. Also, it is here in the Experimental Learning Center where learners and instructors can try out new technologies or digital tools before they are implemented in other classrooms (Loertscher, Koechlin, and Rosenfeld, 2010).

The Virtual Learning Commons: A Definition

The Virtual Learning Commons (VLC) is the online force of the Learning Commons, a digital learning community in which the whole school participates. It is not a library website which only provides a one-way stream of useful information. Instead, both the instructors and the students of the school collaborate to establish the VLC as a place where individuals and groups are actively learning, communicating, and building together in real time. This participatory community of learners is powered by software, which allows many contributors, and it is as public or private as the school wishes it to be.

In a recent article in Library Journal, David Weinberger calls for libraries to reinvent themselves as 'platforms'. He urges libraries to switch from a portal mentality to one of infrastructure that is ubiquitous and persistent. "A library as platform is more how than where, more hyperlinks than container, more hubbub than hub" (Weinberger, 2012). The school VLC has the potential to become the 'infrastructure' that Weinberger describes. The school VLC thus enables schools to

deal better with the messy business of learning, and enables instructors and learners to celebrate and archive results, and to move together towards school improvement.

Varying Perspectives

The Virtual Learning Commons is set up as a client side environment rather than as a top down information service. Because of this perspective, each individual and group uses it for their own varied purposes.

- For the school administrator, the VLC is the center of school improvement and experimentation.
- To a specialist, such as a reading teacher, it is a place to foster reading improvement and engagement across the entire school.
- For the teacher librarian and the teacher technologist, it is a place of collaborative learning and the center of the push to make information and technology actually boost the quality of teaching and learning.
- For the athletic coach, it is the place to showcase sporting events and opportunities.
- For the student, it is the first place to go to find assignments, join and participate in school groups and clubs, find tools and tutorials, or share and build knowledge with other students across the world.
- For the classroom teacher, it is the place to build collaborative learning experiences for students with the help of school and district specialists. It is the place to encounter experts and to invite parents to participate in activities and learning.

Overall, the VLC fosters a sense of ownership by everyone in the school. It is a place where everyone is reaching for and exhibiting excellence.

Thus, this book is not just about the school library and its attempt to reach out. It is about creating a collaborative learning community, which the teacher librarian and teacher technologist set in motion. The Virtual Learning Commons represents the culture of the entire school. It is designed with change in mind and remains in a state of perpetual beta as it evolves to serve the community that jointly owns it.

Perhaps a Tour Will Help

We are advocating a new way of thinking not only about school libraries but about learning for the future. A tour of the Learning Commons, in both its physical place and virtual states, will give you a taste of the endless possibilities to drive school improvement. Teacher librarian, Jessica Hansen, provides a vision of the Learning Commons in four short videos available at:

http://www.screencast.com/users/jlyn_81/folders/Virtual%20Learning%20Commons or Tiny url: http://tinyurl.com/8wu7p3s

More Examples

Here are just a few examples of what might be happening in the Virtual Learning Commons across various grade levels:

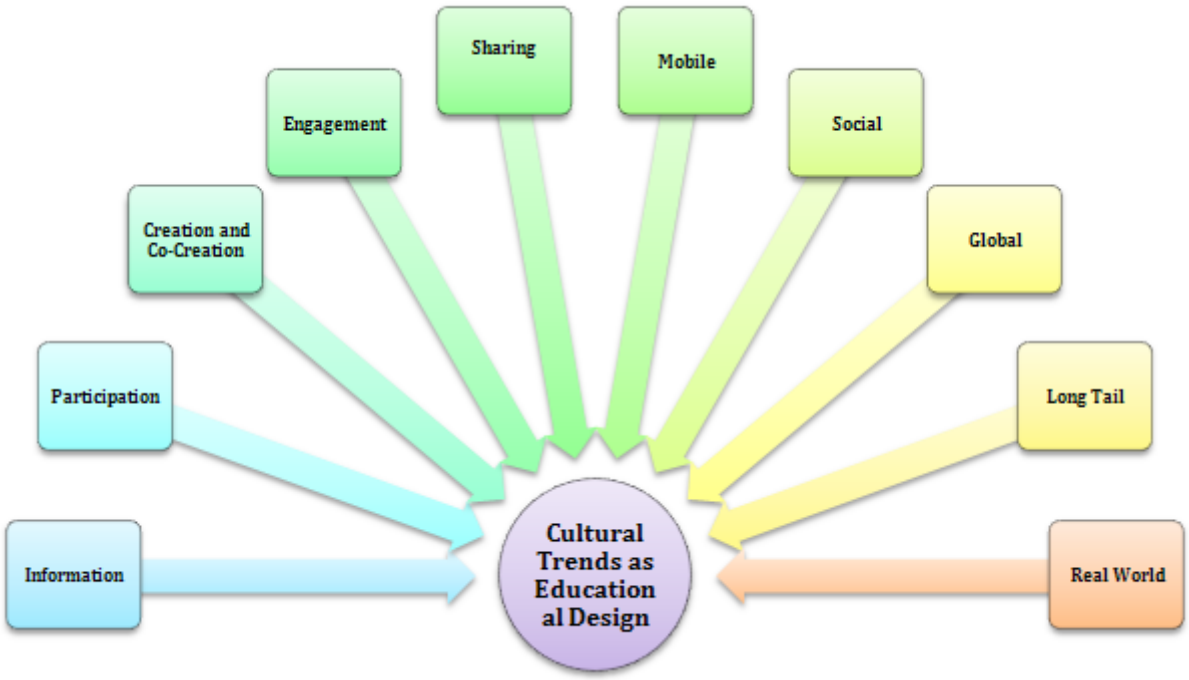
- The entire school district is adopting the Common Core Standards or some other major initiative across all levels. The VLC is the center for forming research teams, planning, experimentation, news, professional development, and assessing progress.
- The physical education department is conducting a wellness campaign across the school. Using the VLC, students can report their fitness activity levels, share recipes and nutrition advice, and arrange real-time athletic meets.
- The teacher librarian is encouraging all students to participate in the state book awards program. She uses the VLC to promote literacy through reading, critical thinking through voting, and first-hand research by communicating with the authors and with other school groups across the state or province.
- The student iStaff team (like a geek squad) is promoting several new Web 2.0 tools to be used by students and teachers throughout the school. They post the tools and tutorials, and form a virtual help desk to assist in the use of those tools.
- Fifth grade students are helping second graders to research various animals in preparation for their trip to the zoo. They use a knowledge building center on the VLC to help their young partners both in and out of school.
- The PTA is launching a school wide environmental project with teams from each classroom. The VLC serves as communication central for organizing tasks and meetings.
- The debate club won a recent tournament! They showcase their victory in a VLC blog that details the major contests, their journey to the competition, and their trophies.
- The seventh grade class is raising funds for the medical expenses of a fellow classmate involved in a terrible accident. They sponsor a campaign across the school where anyone can give a donation for every book read by anyone in the school. Details can be found on the VLC.

Why the Virtual Learning Commons?

Recently, Steve Hargadon, director of Classroom 2.0 and Library 2.0, has outlined the major "cultures" or social activities that are rapidly developing on the Internet (Hargadon, 2012). His analysis provides a new perspective on the foundational reason for using a Virtual Learning Commons in education: to help learners operate successfully in these developing cultures. These

activities are pictured below and briefly explained. How many of these cultures are your students and instructors participating in right now? Which will you be working in shortly?

Hargadon's EdNOW! Model



The Information Culture

The exponential expansion of the Web is providing more and more mountains of information--from the highest of quality to the mundane and inaccurate. It has become a flat and networked culture across the world.

The Participation Culture

The Web encourages projects and movements where many join hands to solve problems, promote causes, and build together.

The Creative and Co-Creative Culture

Never before have there been so many ways for everyone to create, build, and share music, art, writing, photography, videos and other forms of creative expression.

An Engaging Culture
Interests, projects, movements, and opportunities now provide environments where individuals and groups can be passionate about their work and leisure interests.

A Sharing Culture
The idea of a Creative Commons is that of a huge culture of open source and accessible objects and services across the world, where individual expertise is available to everyone for improvement, remixing, and using.

A Mobile Culture
The global emergence of billions of smart and mobile devices enables a gigantic network never before known in the world.

A Social Culture
Facebook and Pinterest are but two examples of systems that link people together as both friends, colleagues, and families across the globe and across time.

A Global Culture
No longer are we separated by time or location across the world.

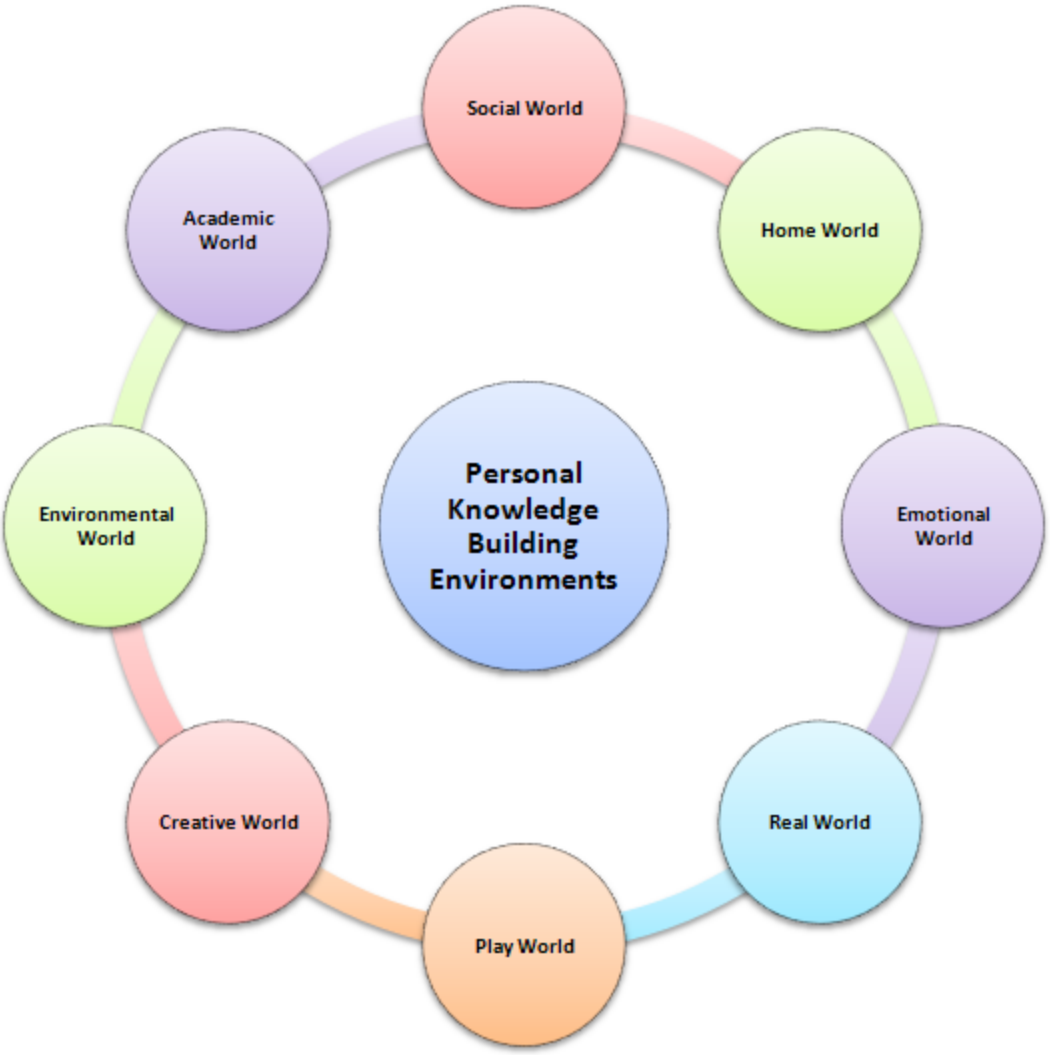
A Long Tail Culture
The long tail refers to a bell curve where most of the production of created works is dominated by a few publishers, news organizations, governments, or other organizations. The long tail stretching out from these dominant forces consists of individuals and small groups creating content such as individually published books, music, video, and other media outside the traditional channels Last year, Amazon sold more items from the long tail than from traditional dominant publishers.

Real World Culture
What is happening in many places may not be happening in a particular location because of access to technology and the Internet. Even with a connection, much can be blocked or filtered so that traditional culture persists.

The Virtual Learning Commons is an environment where children, teens, and adults may explore all of the cultures in Hargadon's educational model. In the VLC, digital citizenship is encouraged, and all forms of experimentation are welcome. Everyone can learn, grow, and develop in the digital world.

Personal Knowledge Building Environments

Several years ago, Loertscher and Koechlin developed a similar model that was focused on on the building of personal learning environments. These opportunities are illustrated in the visual and explanations below:



Knowledge Building at Home

Home and family are the primary places to explore, learn how to learn together, and learn with others across the world, both through formal and informal educational opportunities.

Knowledge Building in an Emotional World
Here is the opportunity to build personal and emotional resilience. As we encounter the positive and negative forces that surround us, we can learn to filter out the worst, and cultivate positivity by building others up.

Knowledge Building in the Real World
We need not be confined to learning within our own limited physical spaces because the opportunity to learn about any place or perspective is now only a click away. Virtual reality is the new reality.

Knowledge Building in the World of Play
Here, we are not only referring to gaming, but to using the Web as a sandbox to build, test, and experience much that is not locally available.

Knowledge Building in the Creative World
The Web provides numerous opportunities to write, compose, sculpt, share films, and experiment with a rich variety of new technology tools.

Knowledge Building in the Environmental World
Here we can participate in solving of all kinds of problems, or be involved in projects that affect various environments, both nearby and at a distance.

Knowledge Building in the Academic World
Here we bridge our digital skills from those things we must learn about, to the things we want to learn about, and enhance both in the process.

Knowledge Building in the Social World
Finally, we use the same channels of communication commonly used with friends and family to inquire, learn from, and connect with experts and each other, as we build our own group expertise.

BIG Idea
The Virtual Learning Commons provides the major opportunity throughout our educational years to develop the skills, competencies, abilities, and the creative environment in which to learn. That is the central reason to build *access* into the Learning Commons programs rather than restrictions, opportunities instead of barriers, and encourage participation over just responding.

Chapter 2

The Virtual Learning Commons as a Tool to Developing A Participatory Learning Community

In Chapter one, we have described the creation of a participatory virtual community with a few examples of what that could mean. In this chapter, we would like to flush those ideas out a bit more to demonstrate what a learning community and a community of learners is, and to show how to stimulate this culture in either a brick and mortar school or an online school.

Before the advent of the Internet, our sense of community was usually formed by our family, our school, or the organizations to which we belonged. In an attempt to keep in touch, we reached out through the mail to those far away. With the advent of email and social media, the notion of and the structure of a community has changed radically. Now, we may not know our neighbors in the physical world but have close connections to family, friends, and groups around the globe. It is a phenomenon being experienced by more and more people everywhere.

A Sense of Community

A spirit of team membership, supportive friendships, and organizational fervor is well known by most people during some part of their lifetime. As growing Internet communities develop, we see the same comradeship and engagement in all types of causes such as online games, Wikipedia, political causes such as the Arab Spring, Internet fund raising, folksonomies, and many other collaborative construction projects.

Is it really possible to have that same spirit of purpose and dedication in a learning community within a school or online learning group? Traditionally, many schools have tried to achieve school spirit by using sports in which not only the students can thrive, but also in which community members and parents can participate. Building the same sense of participation and pride around academics has proven to be much more difficult.

Many young people claim that their number one problem with school is boredom. In order to combat high student dropout rates during middle and high school, some experts have suggested a variety of ways to move students from boredom to engagement. However in some schools, because of a feeling of helplessness in face of very difficult cultural norms that seem overwhelming, adults seem to value retention of control over attempts to engage students.

Another response by some experts has been an interest in gamifying education. This comes from the belief that the system of recognition/rewards used by game creators and duplicated in a series

of badges might transfer a sense of purpose and engagement from the gaming culture into a culture that values academic learning.

Engagement and Community

Many major voices offer engagement as a critical element to building a sense of community. This idea argues that when learning experiences are real and concern something that the learners are passionate about, a sense of comradeship, collaboration, interest, and motivation are natural results. The secret, we are told, is to allow learners to participate in the creation of learning experiences. However, the pressure of standards and tests often crowds out any movement in this direction.

Meeting standards and high scoring on tests are often thought of as antithetical to student engagement. And, in the era of more and more testing and the computer monitoring of every student's work, the tendency is to allow results to win out over interest.

We would argue that it is not a matter of either/or; rather it is a case of both/and. And, we argue that the collaborative virtual space of the Virtual Learning Commons is the perfect venue to build both rigor and excitement. Is this just a pipe dream or can it be a reality?

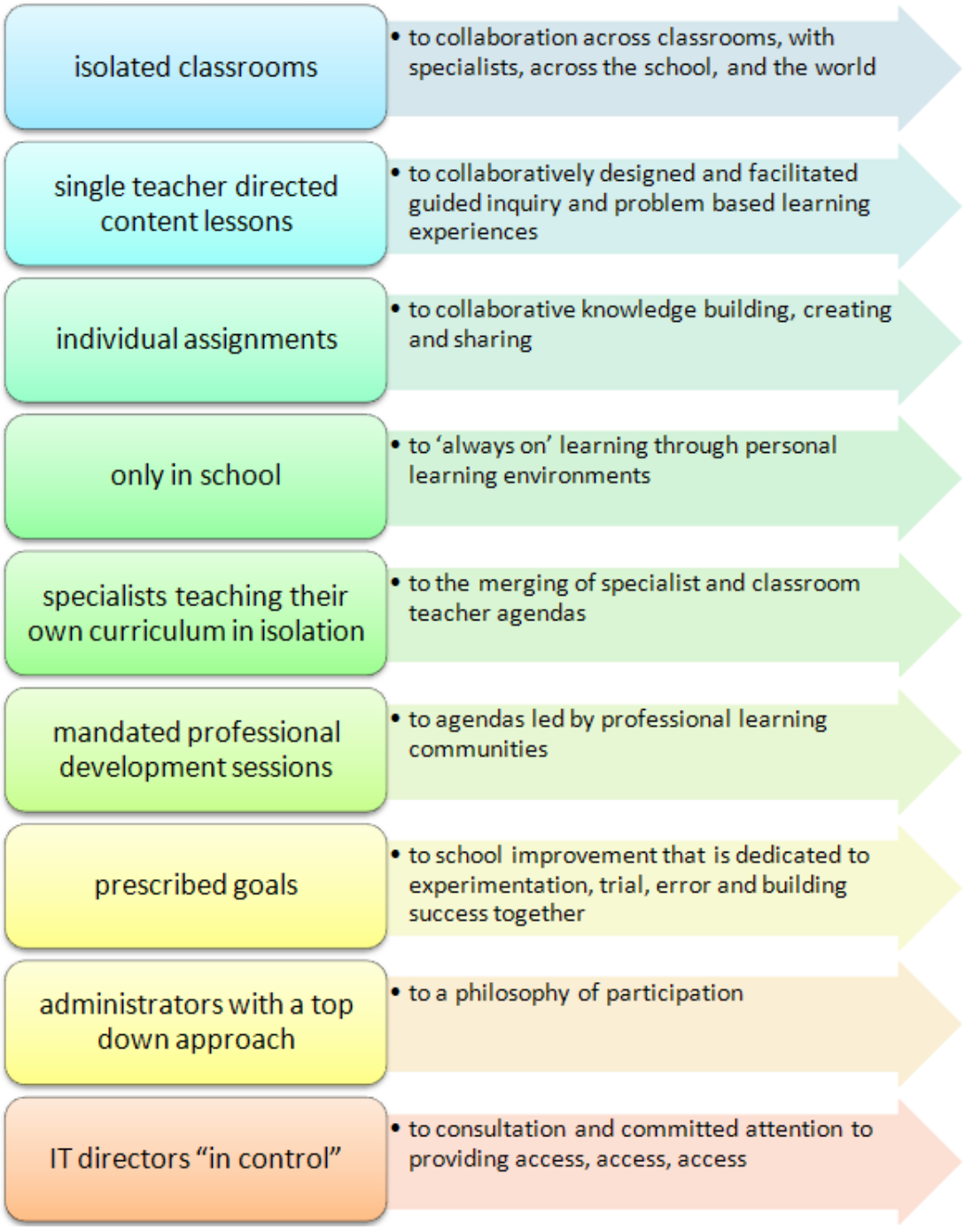
Many schools have attempted to build learning communities using extrinsic awards. In Utah, KSL radio has sponsored a major reading motivational program across the state. Schools who read the most minutes over a period of time are rewarded with $1,000 to purchase books and with a school visit by Chopper Five, the station's helicopter. A number of urban schools use a rah rah technique as part of the morning school welcome to stimulate a sense of pride as everyone works toward higher test scores. Many argue that extrinsic motivation may only work on a short term basis. They point out that learning and reading are their own reward, and that intrinsic motivation is the key to long-term success.

We argue that certain types of technologies inspire collaborative learning as a result of the structure of the high tech environment itself. Technologies that invite communication and participation with ease and efficiency raise the likelihood for community building. When collaborative learning technologies are applied to many persistent problem areas in education, the results are encouraging.

Transitions to a Learning Community

In his book, *Stratosphere*, Michael Fullan strongly suggests that if schools are going to truly improve, then the solutions for teachers and solutions for students must come as a package (Fullan, 2012).

The VLC is a package providing 'solutions' for teachers and students to learn, play and grow, where technology is leveraged in ways that encourage participation. In the visual below, we outline a few of the transitions that can evolve in a VLC.



Information and technology strategies to try

Many presume that by acquiring a new technology, passing it out, hooking it up, and turning it on, that a school population will transform into an eager learning community . A number of efforts to do this, for example the purchase of an iPad for every student, have failed to achieve improvement in what tests measure. Such projects allow naysayers to loudly proclaim the "We told you it would not work!" message. Here are a few examples of better approaches:

- Involve students as well as adults in the planning for a new technology. Have them test out, pilot, and offer suggestions on what to do during any widespread adoption phase.
- Expect and use the Hawthorne effect when adopting a new technology. For example, simple FLIP cameras or cell phone/tablet cameras can be used to create videos connected to learning experiences that concentrate on thinking, experimentation, and doing. Sudden new interest in the topic being taught is likely to occur, but will wane as the technology becomes commonplace. Reliance on choice and student developed questions surrounding a topic will help sustain interest over time.
- Utilize the new generation of computer software that is collaborative in real time. For example, a Google document allows many students to be working on the same piece of digital paper simultaneously. Everyone in a group can be building, editing, importing pictures, creating drawings, analyzing data together, and commenting on what everyone else is doing in real time. Individuals can type in different colors so that both individual as well as group contributions can be analyzed. Adults can watch this happen in real time and offer coaching along the way. The students themselves can teach the technology to those needing help in real time, and the idea of everyone being able to see the quality of work as it develops stirs some sense of pride in the project or writing. Look for other collaborative technologies where collaboration in real time is a possibility, as they are key to the building of learning communities.
- Use knowledge building centers, as discussed in chapter 9, where the very structure of the learning environment lends itself to collaborative learning. We use Google sites for this type of learning experience. Most content management systems, however, are constructed with a more top-down approach to learning that concentrates on simply filing assignments.
- As the school culture part of the Virtual Learning Commons starts developing, as discussed in chapter 11, have the iStaff or iTeam start posting, and then spread the word about what is happening. Then assemble an advisory group of club presidents, faculty, and others that need the ability to edit the VLC and teach them how to participate. Depending on the degree of participatory culture already in the school, it may take a bit of time before enthusiasm begins to build. If this part of the VLC is successful, it should pave the way for the concept of a collaborative culture in other parts of the VLC.

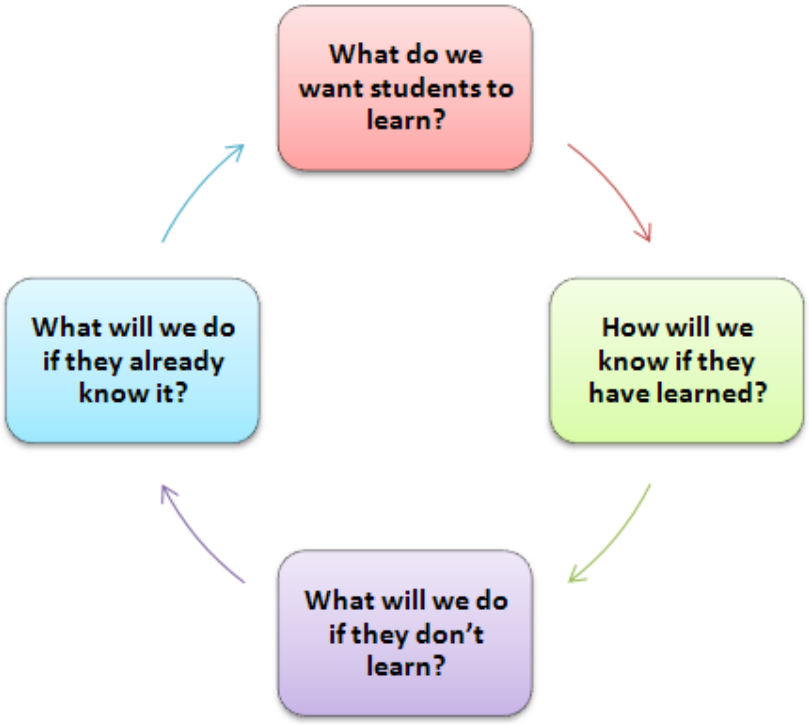
Building a Professional Learning Community

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



See Koechlin, Rosenfeld, and Loertscher's *Building a Learning Commons*, for a more detailed look at building a Professional Learning Community in a Learning Commons.

Professional Learning Communities can now meet in the Virtual Learning Commons anytime, anyplace. Web tools such as Google Sites, wikis,and Moodle can be used to build each PLC. Interactive workspaces can be embedded in these meeting places using any number of online meeting and collaborating tools such as live chat, bulletin boards, file sharing, message centers and more!

Some examples:

- the Literacy Committee set up a PLC to explore best strategies to improve expository writing in the junior division
- the ESL teachers develop a study of visual literacy techniques to improve student communications
- the teacher librarian leads a PLC in a Secondary school to create approaches to embed digital citizenship skills

BIG Idea The Virtual Learning Commons is a giant conversation that builds and binds the entire school community. It is the "go to" space for all learners.

Chapter 3
From Personal Expertise to Collaborative Intelligence

In this chapter, we look at the expectations for student learners as they participate in the Virtual Learning Commons. As you will notice, our expectations go far beyond trying to control what kids and teens post on the VLC, and beyond digital citizenship as it is envisioned in the literature. We will make the case for three levels of expertise that each learner needs to experience and develop across the school years: personal expertise, cooperative group work, and collaborative intelligence.

What do we mean by personal expertise?

The word *expertise* traditionally encompasses ideas such as, *what I know*, *what am able to do*, and *what I can contribute as a person*. In the current school climate, this might mean only a single dimension or measure of accomplishment such as, *how high do I score on tests?*

We would rather expand the idea of expertise to the concept of the whole child. How does each individual develop the knowledge, skills, and character needed to participate in the world beyond school?

As we look at the 'outcomes' of schooling, we might first determine what it is that various tests actually measure. Factual knowledge? Spelling? Grammar? Comprehension? Numeracy?

To these competencies we must add a list of what we really value. This list could include habits of mind, critical thinking, problem solving, persistence, passion for learning, creativity, and other traits including digital citizenship.

The specific characteristics that we choose to develop need to be a part of the whole school culture. They must be understood not only by the faculty and administrators, but also by the students. This means that each individual learner must realize the expectations demanded of them, and what they must bring to the table as an effective learner in the broadest sense. Instructors should empower their students to ask: What can I contribute to a learning experience? What knowledge and skills do I bring to the table? What character traits do I possess that contribute rather than detract from a learning task? How am I getting better and better as an individual across time?

Consider the following analogy. In mathematical terms, personal expertise would be the beginning of an arithmetic sum. For example, in the expression 1+1=2, personal expertise is the substance of the 1. It is a quantity that has substance. It is not a zero. Thus, we will picture it as a 1 below:

1

What is Cooperative Construction/Group Work?

Generally speaking, most manufactured products require the combined efforts of various individuals to cooperatively create something new. Each person contributes ideas or materials, like pieces of a puzzle, until the working object is whole and operational. At the helm of these projects is a person or group who designs the product and gives precise specifications to those creating the various pieces.

Examples include the production of auto parts that fit together to create a working automobile. An edited book is often a collection of articles written by various authors and bound together in a single volume because they are related by topic in some way. The new Boeing Dreamliner is an example of this process. Pieces and parts of the airplane are built around the world and then brought together at a central assembly point. However, the Dreamliner was delayed for several years because some of the individual pieces did not fit together exactly as planned.

Group work is commonly found in academic classrooms. When asked, students often have decidedly negative opinions about how group assignments work and how effective they are. Often, these opinions stem from groups that are dysfunctional or groups in which slackers take advantage of those who do most of the work. Teachers often wonder how to assess group work effectively to counteract group problems and promote group success.

Usually, classroom groups are given the same formulaic task. They are assigned a subject to research and then asked to produce some kind of digital or physical product, which can be anything from a PowerPoint presentation to a robot. Often, individuals within each team divide the

assignment into smaller tasks and assume separate responsibilities--puzzle pieces which are later assembled to form the whole. Grades are given as the product meets a set of pre-established criteria or rubrics.

When cooperation does work, the mathematical expression picture below results in a precise and expected outcome.

$$1 + 1 = 2$$

What do we mean by Collaborative Intelligence?

Collaborative intelligence has a broader and significantly different outcome. It has to do with the broader concept of the whole being more than the sum of its parts. Examples of this abound in the very best industries and organizations that rise to the top either locally or globally.

Collaborative intelligence means that every member of a team brings expertise to the table. Then as a group, team members build, create, develop, and construct a product or system or way of thinking that none of the individual participants could have developed alone. Numerous books have been written on the added value of collaborative intelligence over the usual products of group work:

- *Where Google Ideas Come From* by Steven Johnson
- *Too Big to Know* by David Weinberger
- *Abundance* by Peter H. Diamandis
- *Net Smart: How to Thrive Online* by Howard Rheingold

- *A New Culture of Learning* by Douglas Thomas

One example of collaborative intelligence is the template for the Virtual Learning Commons (VLC) created by students at San Jose State University. For several years, small groups of students had been creating VLCs to fulfill one of their class assignments. In the spring semester of 2012, this assignment began the way it always had previously. Student groups researched the topic, then split up tasks to create a final product. However, in the middle of the semester during a class workshop, the group as a whole looked back at what had been developed over the past few years, compared those findings with what they were constructing at the moment, and then (with the help of the instructor) collapsed the best ideas into the five major portals discussed in this book. One student worked closely with the instructor, and received suggestions from other classmates, to develop a brand new VLC template which is now currently available online at https://sites/google.com/site/templatevlc or at Tinyurl: http://tinyurl.com/8z3qof7

This product is the result of the expertise of many individuals. It is not something that any of the students or the instructor could have developed independently, or even in small groups. Thus, this class and those of the future are able to build onto the template, saving themselves and others time. Hopefully, they will contribute even more new and creative ideas by standing on the shoulders of giants who came before. The VLC template can be considered 'in perpetual beta' as improvements and creativity continue its development.

Think of examples you know where collaborative intelligence has flourished far beyond the norm of groups at work:

- "Houston, we have a problem!" (Have you seen the movie *Apollo 13*?)
- The development of Google Documents, which has transformed individual writing into collaborative thinking/writing
- The development of many miracle drugs
- The ongoing development and integration of technologies

We think of the products of collaborative intelligence centered in creativity, higher level thinking, innovation, and fresh perspectives alongside the work that individuals are able to do and contribute. Pioneering efforts are often harvested and used as pieces of larger ideas or projects.

Most entrepreneurs know that one path to financial success is to utilize the expertise of a few people (including oneself) to produce an innovative product or service, and then get bought out by a major corporation. Thereby, those few individuals are brought into the larger company and begin working on larger products and services. The harvest of personal expertise to form a much larger solution is now commonplace. In our mathematical expression, we have demonstrated that the whole is much much greater than the sum of its parts, often exponentially greater. Such work is usually thought of as an innovation.

1 + 1 = 3

In order to understand collaborative intelligence, one has to experience it to really appreciate why it is so much more superior to group work in circumstances where certain problems or projects need a solution. Perhaps you have experienced this phenomenon yourself.

A great choir, or orchestra, or musical group is not just about plugging soloists into a group. In fact a group of soloists performing together is often a disaster because their high level of personal expertise can create chaos and dysfunction. It is only when the various voices or instruments grow together to create a thrilling whole that concert goers begin to realize that they are witnessing a unique and extraordinary event. Performers in such groups recognize the extraordinary difference collaborative intelligence brings, as mediocrity turns to extraordinary. If asked, they can describe the experience and their role in that excellence.

Practicing Collaborative Intelligence

Since collaborative intelligence is not usually a part of traditional schools, where the emphasis is on personal expertise, we will elaborate here a bit. The first time you try out a collaborative intelligence exercise with a group of young people or adults, the group may be totally baffled by what is going on. We suggest patience and persistence as you build this technique.

Collect and analyze some simple data
Using either a Google form or a Google spreadsheet, have everyone in the group collect and enter some kind of data, ideas, or opinions in real time. Here are a few examples:

- Teach kids or teens how to count their own pulse and have them enter the data in the spreadsheet. Have them do some exercise; count their pulse; enter it in the spreadsheet in a second column. Note that every participant is working and contributing during this phase, rather than sitting and passively listening to a description of what might happen if this experiment were carried out. Now, with the group, develop some questions that they could ask of the data. Then do the analysis and synthesize the results.
- Next, ask "So what?" and "What's next?" Note that during this phase, everyone is invited to participate in higher level thinking as they consider the significance of what they have learned together. Consider the difference between a class in which the bulk of the "lesson" is spent on higher level thinking, and one which spends time collecting data. How many learners were engaged? With what result?
- Later, test the power of "transfer." Have the same group of students collect ideas in a new field of study, social studies for example, using the same data entry and analysis tool. Do the students get better at the task? Do they transfer the ideas of questioning, data analysis, and thinking to a new problem in a different discipline? What does this teach you as an instructor about the learning process? After implementing this exercise, would you be surprised if the learners came up with their own ideas for experimentation? Or, if they came up with a project to propose to the principal? Would you be surprised if they wanted to invite a doctor, a personal trainer, an athletic coach, or some other expert to think together about their findings?
- Ask students in a final Big Think what, if anything, was unique about the conclusions they drew from their own analysis and synthesis. Did they discover what is already recommended by professionals? Or, did they cast a new spin or recommend something different than the conventional wisdom? Did they see any entrepreneurial applications in what they had learned together?

Raise the Stakes: A Real Example

With a bit of experience, you can raise the complexity of the problem or question. Use the following example as an illustration of how this works, and of how to create challenges of your own.

For several years in David Loertscher's LIBR259 Instructional Design course at San Jose State University, students read articles and listened politely to the lecture about the benefits of classroom teacher/teacher librarian collaboration. Because almost no one in the class had experienced such behavior, it became evident to the instructor that the students thought that collaboration was some kind of pipe dream with no relevance or potential for implementing in "real world" schools.

Unhappy with this result, Loertscher turned a boring classroom activity into a challenge. If we were trying to develop a collaborative culture in a school, how would we go about it? He then assigned the students the task of reading at least three professional articles or research studies about teacher-librarian collaboration, then entering the major ideas into a categorized spreadsheet. During the following class period, teams of students first analyzed topical columns looking for the major ideas and solutions suggested in the research literature. This analysis and synthesis activity, including major recommendations on the transformation of a school, took over an hour. Loertscher noticed several things:

- Each member of the group did the background work for the project because they believed their contributions to be critically important to the group.
- Instead of obtaining information from a single lecture or a textbook, the group was informed by the ideas of over fifty professional articles and research reports.
- The research analysis phase required active participation and high-level thinking from every single learner for the entire hour.
- The technology used (in this case, a Google spreadsheet) enabled students to build deep understanding of the topic. Paper, pencils, and chalkboards could not have produced the same level of group expertise in the same amount of time.
- The resulting proposals for a transformed school were not only thoughtful, but creative.
- And, at the end of the experience, everyone was brain dead from intellectual exhaustion, but all had gained a sense of elation about the ideas and possibilities created.

This collaborative research and analysis technique is now used every semester to build group and individual knowledge of the four theoretical foundations underpinning the entire course. The students' depth of understanding and the amount of information that they learn in the same amount of time continues to grow exponentially as compared with older learning and research methods.

A Creative Mix

Looking at the above three categories of knowledge creation, it is tempting to emphasize one strategy over another. We do not believe that the ideas presented here are to be used in isolation. Rather, the best learning environments include a mix of all the above. Every learner needs the opportunity to bloom in each learning style. Education is most effective with a creative mix of tactics, also known as differentiation.

Will there be failures and successes in each of the strategies? Yes. Efforts at collaborative intelligence don't *always* work, and neither do efforts at developing personal expertise or cooperative projects. Some organizations do not even *want* their members to be creative. For example, most fast food restaurants dictate food preparation standards to their employees rather than allowing them to create their own version of the perfect hamburger. However, it is essential to introduce all students, especially children and teens, to all three learning methods as they learn, grow, fail, and develop. This should happen whether classes meet face-to-face in a physical space, totally online, or in a mix of the two.

Should students develop one before the other? Is learning a staircase to climb? No. The mix of learning strategies can be implemented in every classroom, from preschool to high school. Presenting students with a variety of techniques gives them more resources to succeed than the alternative of beating one method to death. For example, education scholars today largely reject the idea that the solution to reading problems is offering kids more intense skill training. They call it "spinning wheels." Differentiation offers students a mix of strategies.

We haven't visited this school, but suspect what we have been talking about in this chapter is affecting the entire culture of learning discussed here: http://www.fluency21.com/blogpost.cfm?blogID=2810&utm_source=Committed+Sardine+Blog+Update&utm_campaign=1798e514c5-RSS_EMAIL_CAMPAIGN&utm_medium=email or at Tiny url: http://tinyurl.com/8tscklf

BIG Idea
To succeed in the emerging networked world, young people are challenged to develop their ability to build their own personal expertise, to learn how to contribute to cooperative projects, and to combine what they know with others to build collaborative intelligence as an expression of creativity and even rarer, innovation.

Chapter 4

Think about the Structure of a Cooperative and Collaborative Community Before You Choose a Tool

In the past three years at San Jose State University, graduate students and their instructor, David Loertscher, have been constructing Virtual Learning Commons sites using a variety of software. During the Spring of 2012, the class did a study of previous efforts and then created five major rooms or portals into which the Virtual Learning Commons might be divided. Each portal has its own construction team that is allowed to edit, build, and create. As well, owners of the entire VLC have the power to regulate the whole. Thus there is a system of control but also a decentralized structure to allow a true collaborative culture to appear. No one person is able to construct the VLC, and thus a participatory culture is encouraged to emerge and grow.

We provide a brief overview here on the possibilities of each portal, and will remind the reader again as the actual construction begins.

The Five Main Portals of the Virtual Learning Commons

After their analysis of previous VLC site constructions, the Spring, 2012 class at San Jose State University combined all the previous efforts into five main sections or portals:

Information Center	Literacy Center	Knowledge Building Center	School Culture	Experimental Learning Center
				

Here is a brief introduction to each major portal. In subsequent chapters we outline each portal and its contents in more depth. You might follow along on the template as we introduce each of the portals.

The Information Center

This portal is the opening page of the Virtual Learning Commons. It is somewhat like a traditional school library home page in that it links the user to a wide range of useful resources and tools, databases, libraries, museums, activities, the Learning Commons orientation, etc. It is the point of

entry for the other major portals. To capture and keep user interest, the front page features a 'hook' in the center that draws in the user to the site as a whole.

The Literacy Center

This is the arena where a whole school culture is emerging around reading, writing, speaking, listening, creating, consuming, enjoying, collaborating, and celebrating all things connected with a variety of literacies. Here are the digital book clubs, the writing clubs, and the book or movie trailers. This center should include work and activities done in single classrooms linked to the Learning Commons, across classrooms, across grade levels, across schools, across districts, across the state, and across the world. Various activities come and go as interests are sparked, created, implemented, and then decline. Presidents of school clubs post, teachers post, administrators post, and everyone is commenting and participating in projects, activities, celebrations, and discussion.

The Knowledge Building Center

This is the learning community of the Virtual Learning Commons. Here is where the teacher librarian, the teacher technologist, and other specialists design and conduct collaborative learning experiences with classroom teachers. Because of the transparency of the VLC, the very best of learning in the school can be tracked and archived. The learning experiences can range from one-class participation to multi-class experiences and learning challenges from around the globe.

School Culture

This portal is the main draw for students because it is the living school yearbook. This is the home of sports videos, club activities, trips, performances, contest winners, happenings, candid camera tours, and more. It is THE place to check every day to see what is going on. And, something from this page becomes the 'hook of the day' on the Information Center front page.

The Experimental Learning Center

This is the heart of experimentation, testing, trial, success, failure, and projects of school improvement and action research in the school. It is not only a place frequented and constructed by administrators, but is available to the leadership team of the school for grant projects, or for adoption of new initiatives. Both adults and students are experimenting in the space, as it is the place to take risks knowing that it is okay to fail and regroup for success.

A Perpetual Beta Culture

We recommend that you experiment for a bit with the template and structure that we have created. Form a focus group to look at a beginning structure and then brainstorm what will work in your school or online environment. We suggest that focus groups consist not only of adults but of the young people who will be using the VLC. Without their help, participation, and expertise, the VLC is likely to be ignored in the same way that the original school library website usually is. And, as the project begins to grow and flourish, we must all remember that it will evolve regularly as new needs arise, different people participate, and as the technology becomes more sophisticated.

Video Tours of Existing Virtual Learning Commons

Catching a glimpse of what others have created is always helpful as your own focus groups start to create a vision of what could be developed in your own school. Explore these short video tours and note the possibilities:

- Video tour of a Learning Commons, Hancock School: https://sites.google.com/site/loyolaschoolvlc/home/vlc-video-tour or Tiny url: http://tinyurl.com/9b6hanp
- Video tour of the VLC from Malibu High School, California: http://screencast.com/t/eoepjcukA
- Lincoln Middle School VLC video tour: http://screencast.com/t/hHva1sem8j1b or Tiny url: http://tinyurl.com/8ouq76w
- Mission High school, San Francisco, California:
    - Actual link to the VLC: https://mhs-sfusd-ca.schoolloop.com/libraryvlchome
    - Three video tours: https://mhs-sfusd-ca.schoolloop.com/VLCvideotours
- St. Maur Private School Virtual Learning Commons video tours:
    - Information Center and Student Life center: http://screencast.com/t/EDxHJgrf7ug1 or Tiny url: http://tinyurl.com/8bmptu8
    - Collaborative Learning Center: http://www.screencast.com/t/erOPzuiduHc or Tiny url: http://tinyurl.com/9xx54ns
    - Experimental Learning Center & elementary library:
    - http://www.screencast.com/users/jlyn_81/folders/VLC%20Screencast/media/b8c576e6-1b8e-4e63-aba7-579f04bc6779
- Blair High School, an IB School, VLC done using Weebly. Tours as follows:
    - http://www.screencast.com/t/WvcZlPex1dS

    - http://www.screencast.com/t/RiPTyhYLqkQa or Tiny url: http://tinyurl.com/9a3gac9

- The Library as School in Sweden: http://edudemic.com/2012/09/swedens-newest-school-system-has-no-classrooms/ or Tiny url: http://tinyurl.com/8r4dgxy

None of these sites were created using the collaboratively developed template, but they do have some of the characteristics that have ended up in the final template. Because the template is a template, the owner of the template has full control over everything.

Some ideas for use and adaptation:

- use the template as a model and build a whole new site with your own structure and software.
- use the template as is, and just erase the text we have put on the various pages and replace it with your own material.
- use much of the template, but redesign various portals to meet your school needs. It will take some experimentation, creativity, testing, and trials before you settle on what you really debut to the school as a whole.
- create a test site for experimentation and another for the real thing as ideas are adopted.

BIG Idea
The structure of the Virtual Learning Commons is deliberate in design to address school goals and build community. Certainly the Virtual Learning Commons is a work in perpetual beta so it is always in a state of development just as is the physical Learning Commons space.

Chapter 5
Who Will Participate and How?

A Participatory Community

Transforming a school library website from a one-way stream of information to a participatory community might be one of the most difficult challenges of the Virtual Learning Commons. Immediately questions around participation will surface. Who is in control? Who will be allowed to post? Can we trust those allowed to post? What if they post something inappropriate?

We must be concerned about these issues, but it is easy to let fear rule and consequently shut down the idea. To not move forward is simplistic and unrealistic in the current global technological environment. The potential of participatory technology to enhance teaching and learning must be embraced.

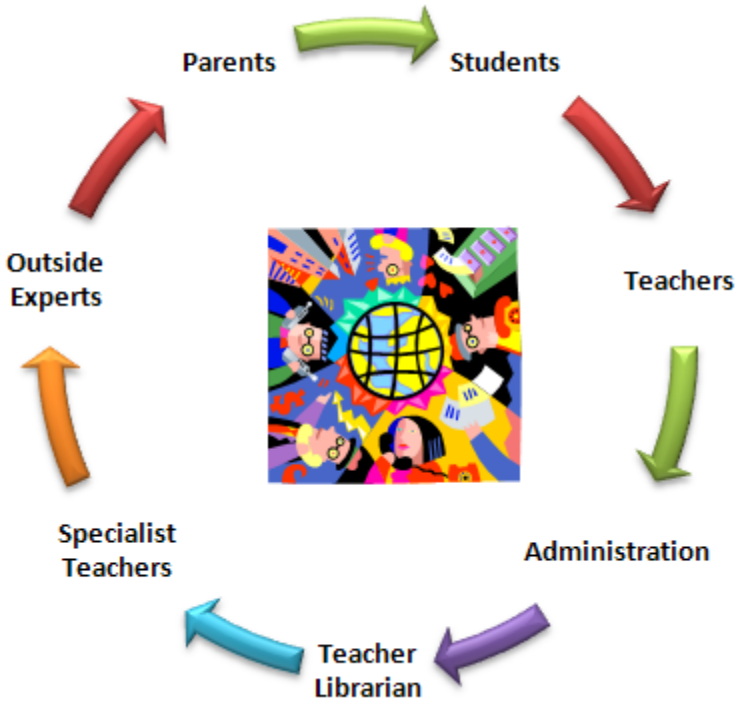
We begin by asking, What is a participatory community? Do you already belong to one? How to they work? How do they succeed? How do they handle challenges? Realizing that there are a growing number of participatory communities, we will outline the advantages of one in the school and then make our plans.

Wikipedia is the most well known participatory community and there are hundreds of others. We might participate in Good Reads (a book discussion group), in a group on Facebook, in a hashtag on Twitter, or in a political or environmental action group. Kids and teens most often are involved in gaming groups. They already understand what a tribe is, how rules are set up for participation, and what happens if they misbehave or don't contribute their share. So whether they are an adult or child or teen, the likelihood that people already are participants in virtual groups is very high and rising. So, let's start with the premise that a participatory learning community in the school is not only a possibility, but can be a huge factor in the success of individuals, groups, classes, teachers, and administrators.

Start with a platform

We have selected Google Sites as the platform for our examples from all the ones we have looked at, but we know that local preference might be given to Wordpress, or School Loop, or Drupal, or Moodle, or some other established platform in the school or district/board. Whatever platform we choose, we want it to function and thus allow both adults, kids, and teens to contribute regularly. We want the platform to be open enough for them to do so both in and outside of school. Some of the platforms have not been set up to house a participatory community, and so a bit of creativity is

needed to make them work. The idea is to initiate and maintain a giant conversation about teaching and learning throughout the school community, as illustrated in this diagram.

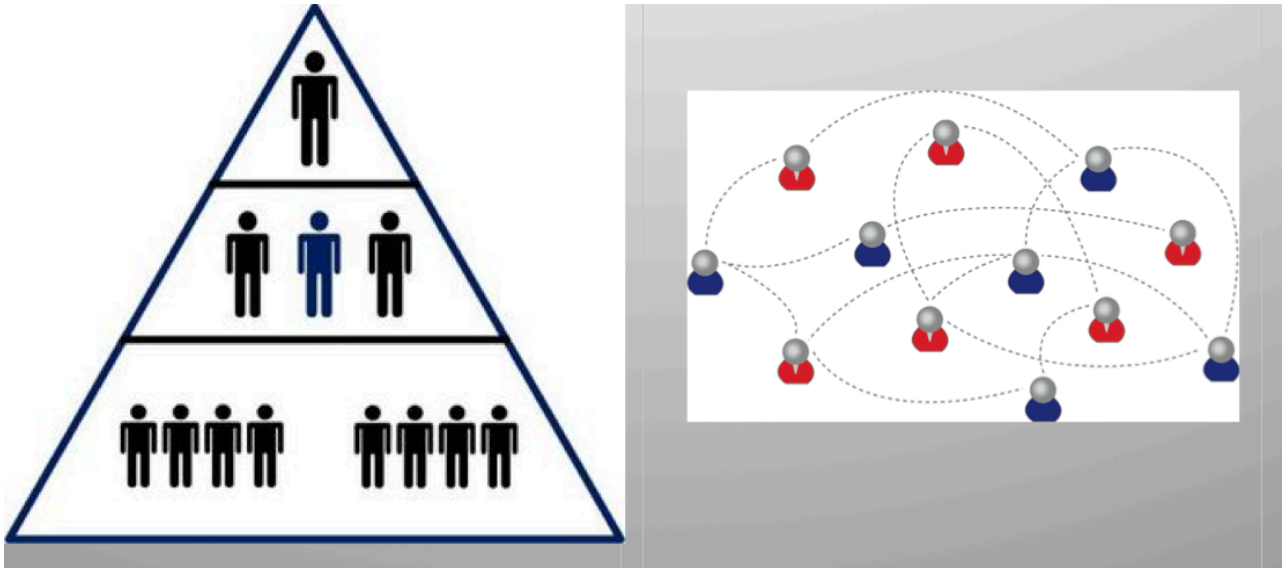


Assemble a Leadership Team

Who will be the initial group which envisions, builds, experiments, and tests the VLC? Be sure that both adults and students are on this team. They are the first to pull down the template, learn the ropes, and experience a participatory community for the school. As they work, they should solicit ideas from their constituent groups. They will also help identify the first round of editors for the initial rollout. They can also establish the expectations for editors. They might establish some positions:

- Leadership team - those who form and enforce policy and keep the VLC in operation
- Executive editors - persons having control over each of the major parts of the VLC
- Editors - those who have the power to post to one or more pages of the VLC
- Contributors - those who prepare materials and pass them to the editors for uploading
- Spotters - those who recommend additions to the VLC or notice inappropriate content
- Everyone - everyone who can contribute to discussions, posts, blogs, clubs, issues, suggestion boxes, etc.

Whatever structure we create, we should see an immediate flattening of the school culture, from top down to networked. This of course, is the real world of the Internet as we now know it.



Digital Citizenship

Establish the policies and procedures for teaching digital citizenship across the school and use the Virtual Learning Commons as the core laboratory to make it work. Will there be offenders? Of course, but they will be few and we will treat their infractions in the same way as any other misbehavior is handled in the school. If students don't learn good manners and ethics in virtual spaces at school, who else is going to teach them? If the school is a member of the Google Apps for Education conglomerate, the VLC will be inside the firewall and that alone is a major argument for its experimental formation. It is also the vehicle that demonstrates that it is a learning and teaching place. There are a plethora of materials and websites out there for teaching digital citizenship, so whether you have a brick and mortar school or an online school, or a blended approach, there will be lots of help at the fingertips.

How will they post?

If Google Sites is used, there are many tutorials out there to teach both executive editors and other editors how to post. If using other platforms, the leadership team can assemble a group of tutorials, and perhaps conduct some training. We recommend that a student iTeam be part of the leadership team. The student iTeam can be the group that teaches editing skills, can be editors themselves, and of course can be spotters of problems and possibilities. This role will give these students a great deal of skill and leadership experience in the digital world.

When will they post?

If there is not something new every few days, the VLC will languish. So, what schedule will the various editors follow? If something can be posted from the school culture page on to the information center page every day, traffic can be expected to grow if what is posted is of interest to the kids, teens, and to the adults. Consider this the technique to draw an audience and hold its interest. The leadership team, as well as the senior editors, will monitor each of the five portals of the VLC to ensure that participation is alive and well. If participation is low, then the team decides how that section will get both attention and participation.

BIG Idea

Students are eager about and many classroom teachers are already discovering the potential of networked and participatory learning. Just imagine how much more can be achieved in every classroom and throughout the school if a rich and engaging VLC environment is embedded in everyone's personal learning network.

Chapter 6

Building the Architecture: Pulling Down the Template

This book concentrates on using Google Sites as the main architecture for the Virtual Learning Commons, but there are other platforms as well. We chose Google Sites because it:

- It is free and available 24/7 across most platforms
- Allows different participants to edit various pages
- Is fairly simple to learn
- Is located in the Cloud
- Allows collaborative construction of a learning space
- Works both on the inside and outside of a Google Apps for Education school

So, while the reader might be limited to or more interested in a different platform and software application, we suggest that the features built into the Google Sites platform be used to judge how well a different platform would serve. Thus, as you read how the template we have built would work, a different platform should be able to deliver the same or better features.

We suggest that the best way to get started thinking about a VLC is just to create a VLC for your school, then start testing and experimenting with it to understand both the possibilities and the opportunities. Then you can judge whether what we have created is better and more versatile than what you already have or want to have.

Get Started. Pull Down the Template

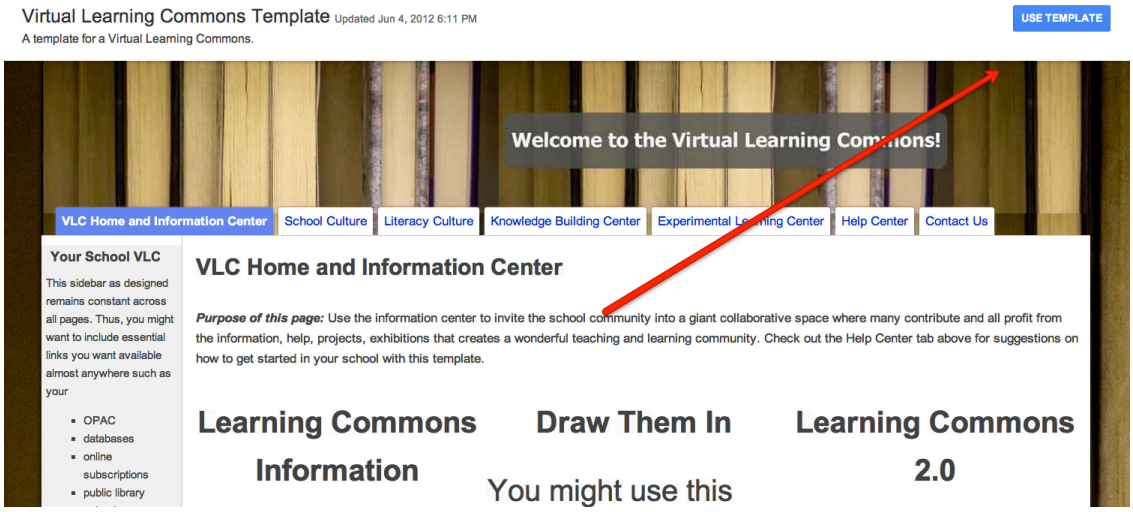
Preliminaries

First, get a Gmail account. You must have a Gmail account to be the owner of a Google Site.

Next, beware of using Internet Explorer as a browser. Try Firefox or Chrome, whatever seems to work best on your system. Next, if you have not used this tool before, we suggest looking at one or several tutorials available on the Web about how to create and use a Google Site. And, if you get stuck, just get in the habit of googling a help site or tutorial about your problem with Google Site construction.

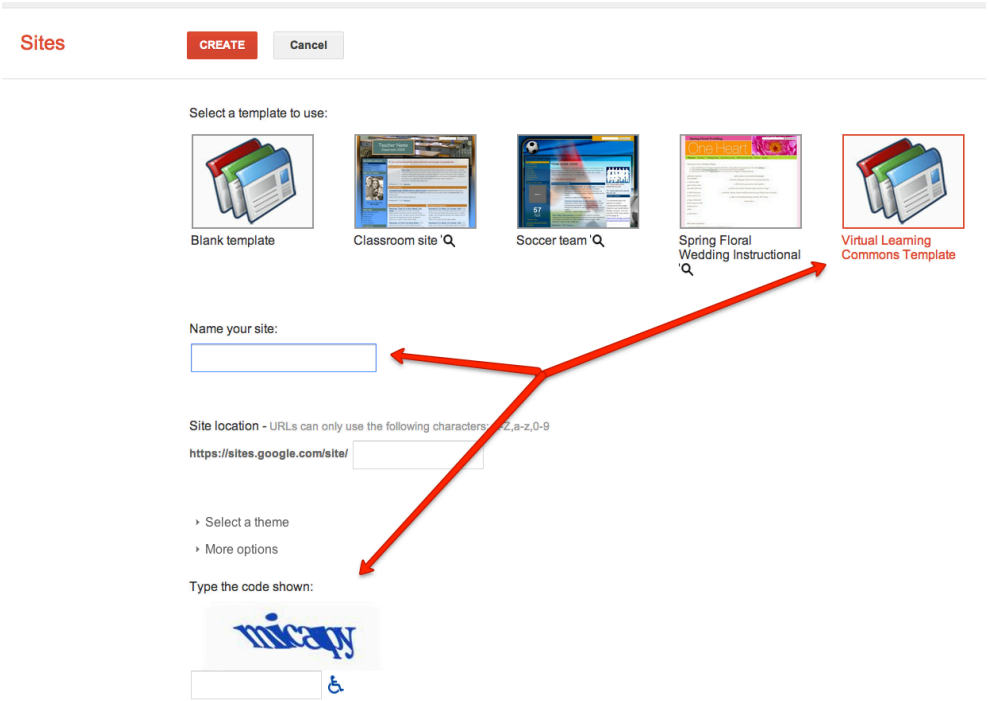
Download the Template

Go to the following template address: https://sites.google.com/site/templatevlc. At the top, you will see "Use this template." Click that. It might look a bit different on your browser, but it is there.



Sign in with your Gmail address if you are asked.

Next, click on the Virtual Learning Commons Template. If you succeed, it will have a red box around it as illustrated below. Next, you name your template. This could take several tries because you have to name the template something that has not been used before, and because you also have to figure out the picture password. We find that after you type the code in successfully, Google seems to wait up to a minute and that is a good sign that you have succeeded. The picture below shows the critical places where to pay attention.



When the new template appears on your screen with the new name, you are now owner of that site. The sole owner. And, you are ready to explore. If you want to do this with a group, then you will have to share the site. We will cover that later, but first a tour:

The Five Main Portals of the Virtual Learning Commons

In chapter four, we gave a brief description of each of the rooms or portals of the VLC. Click around in these to see suggested content for each learning portal.

Information Center	Literacy Center	Knowledge Building Center	School Culture	Experimental Learning Center
				

Thinking and Planning

Before you actually begin construction, invest the time in researching and planning what is going to work best for your learning community. It helps to have a small group dedicated to working on the plan.

One idea we have used is to create a test site for experimentation and another for the real thing as ideas get adopted. Certainly the Virtual Learning Commons is a work in perpetual beta, so it is always in a state of development just as is the physical Learning Commons space.

Learning the Ropes of Google Sites

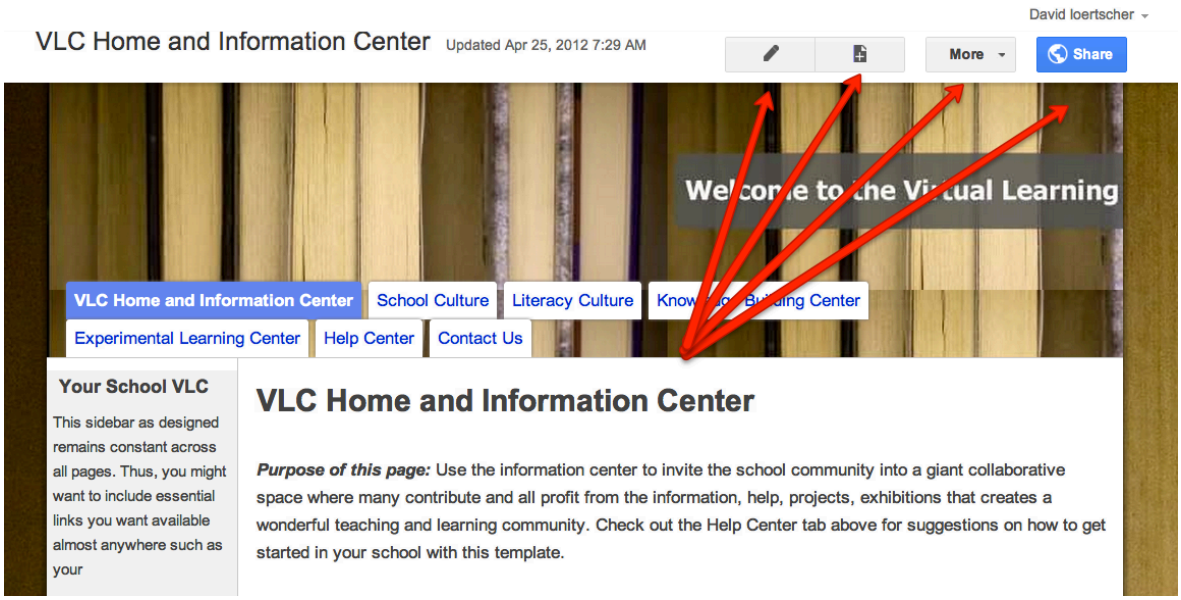
Depending on your skill level and experience with Google Sites, you will need to become an "expert" in how the site works. We recommend that this be a group responsibility rather than having one person shouldering the entire responsibility as owner. Surround yourself with those who can help with problems and those who enjoy the technical side of website construction. These can be adults or young people. They can form your iTeam of consultants. Perhaps you can make a few of them co-owners so they can fix or develop needed sections or pages. We recommend that you just jump in and do stuff, fiddle, experiment, fail, and succeed. That is just the nature of the Web 2.0 tool world. And, since Google uses the practice of continuous revision rather than versions of its software, what you know how to do today may not be the same tomorrow. It is just a fact of life. And, tomorrow, a new technology might arise that is much better than is the current

one so that you abandon one technology for another as sophistication and opportunities arise. We find this attitude a fun challenge rather than a huge stumbling block.

Let's get your started with just a few basics and then you can explore in more depth.

When you open the site as either owner or editor, you will see the editing tools at the top of the screen. These can be different on every page. If you don't see them at the top, you cannot change the page. This means as owner, you can give and withdraw privileges as you need to in order to keep the site under some control. However, you need to remember that this site is a giant collaborative and conversation, so the idea of complete control is counterproductive and unnecessary.

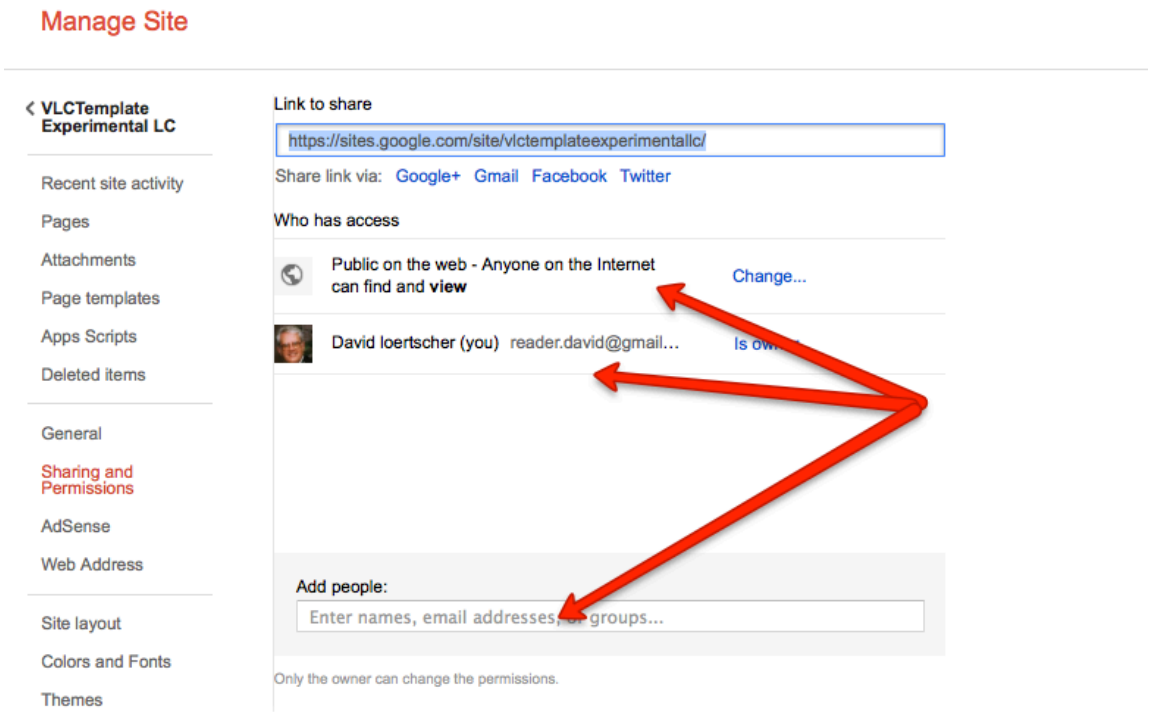
Here are the editing tools:



Pictured above are the basic tools you will use regularly. The arrow tool on the left allows you to edit the page and brings up the editing toolbar. The little square box is the "Create a new page" tool that you will use to add new pages to the site. The "More" box sends you into the general management area but NOT the place where you will edit the sidebar to the left. And, the blue "Share" box is where you will allow editing rights to pages or ownership of the whole. Under each tab there are a host of things to do and many possibilities. Those who have the most experience will know what each of the various sub-possibilities are. Most editors will just need to know the basics and come for help when they would like to do something more advanced. Look up help sites and tutorials on the Web when stuck. That is what we do.

Sharing

We have set this template so that each of the five portal pages has its own unique sharing control. This allows you as owner to let adults or students have power to edit certain pages and not others. This is a very important and wonderful control point.

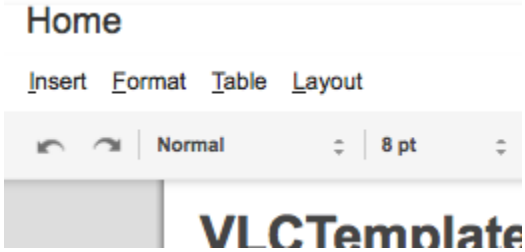


The graphic above shows what you will find on each of the main pages. You will decide as owner if the whole site is public or private. Next, you will find a list of those who have access to that particular page and whether they are owners or editors. And, at the bottom, you will need to add the email addresses of those who are allowed to edit the page. Owners must have a Google account, editors not generally so, but you have to test this.

Let us say that in the school culture page, you want to designate club presidents, athletic coaches, certain teachers, or even outside experts to edit and add content. You will have to collect their email addresses and add them on the appropriate page. Perhaps a trusted iTeam member can carry this responsibility. If you want to delete a person's access, you can do so in the center box above by just clicking the X at the right of their email address. This power would allow you to provide editing privileges during a workshop or work session and close it to certain editors until the next work session. Some editors will need access at all times and others only at certain times.

The Editing Tool

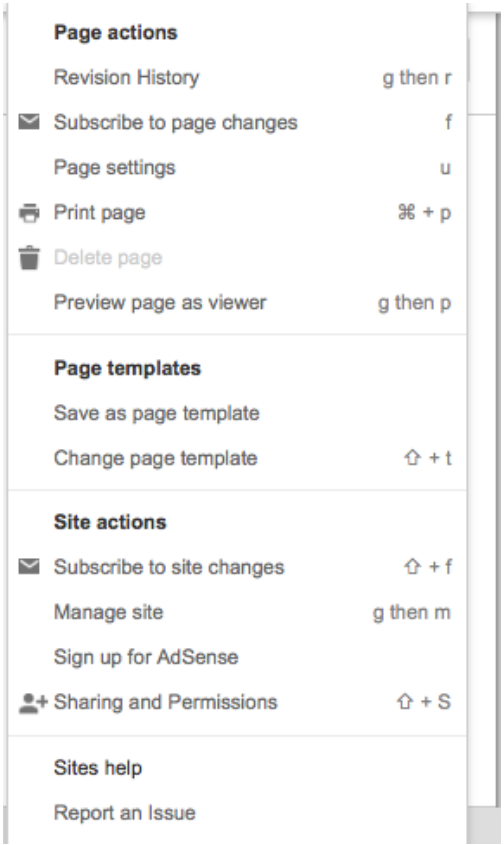
When you click on the editing tool, a line of familiar formatting tools that most people can figure out and use appear, but don't ignore the "Insert", "Format", "Table", and "Layout" tools in the upper left as pictured below:



Under each tool lies a host of things to do. For example, under the "Insert" tool, you can embed images, documents, and many other things on the page that allow much creativity and interest to the site.

The More box

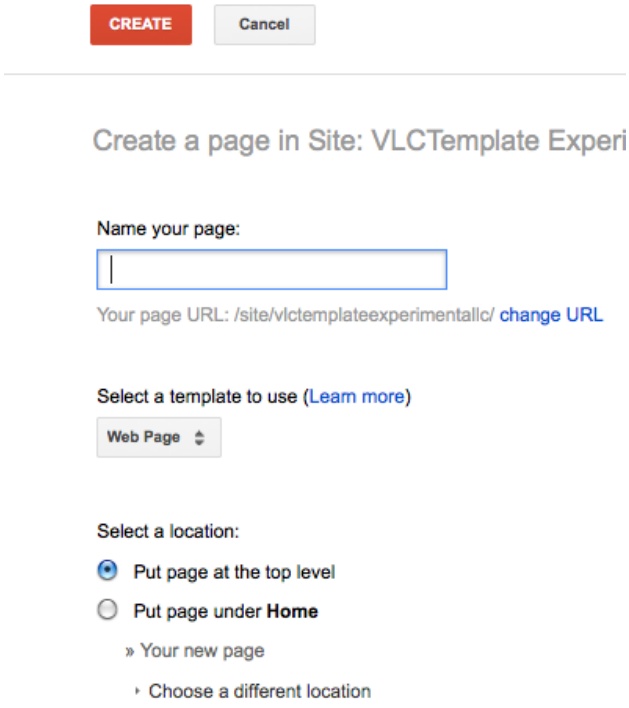
Under the "More" tab comes the main edition tools for the site. We use the "Manage this site" tool the most often but others are important as well. The open tab is shown below:



It pays to investigate each item listed to see what it does. We often use the "Page Settings" tool to allow or disallow documents to be added to a page, and to allow or disallow comments at the bottom of each page.

Add Pages

This tab, as pictured below, allows you to add additional main pages or subpages to each of the main pages. You will need to pay attention to the position of the page and where it will appear in the left or top sidebars. If you want to add a page, do so, then you will need to edit the sidebar to position that page where you want it. You can add a tab to the horizontal part of the site or to the vertical sidebar. When you edit either, look for the "Add Page" at the bottom of the box and a list of pages will appear and you can click on one to place it where you want it.

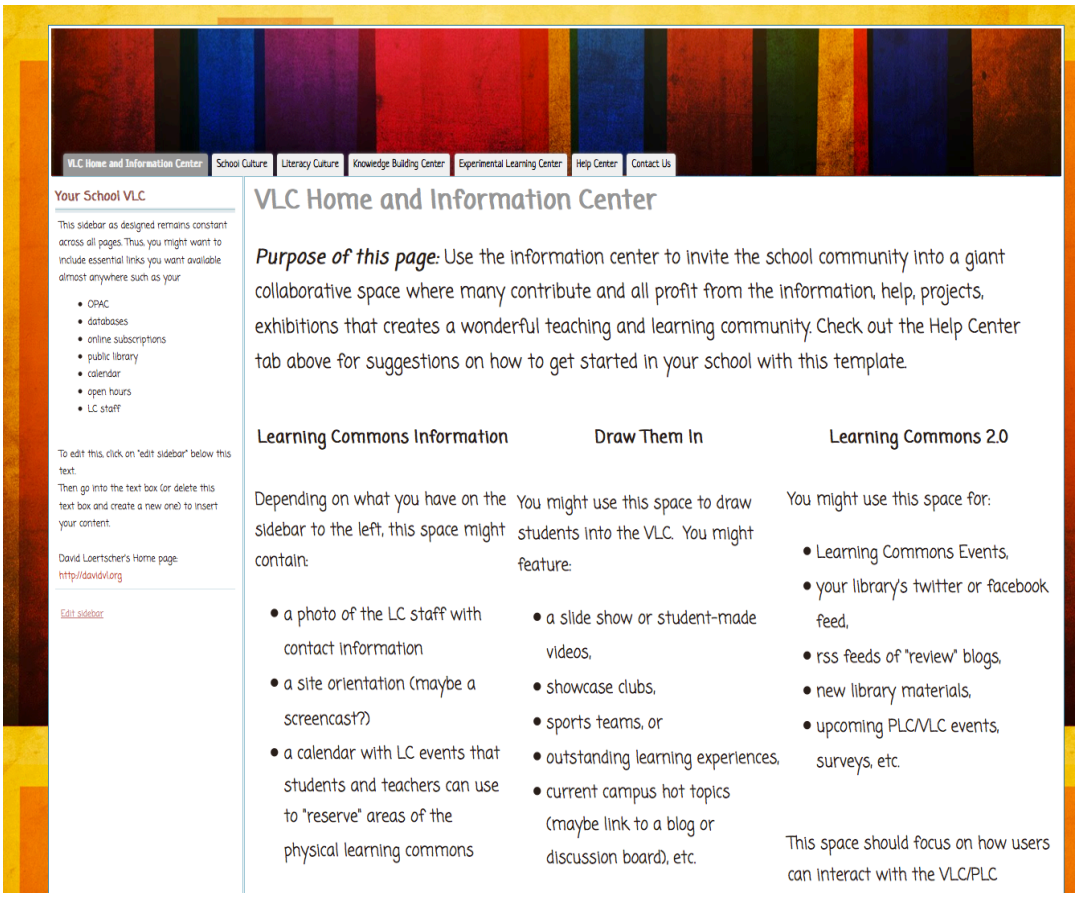


Changing the Theme and Banner at the Top

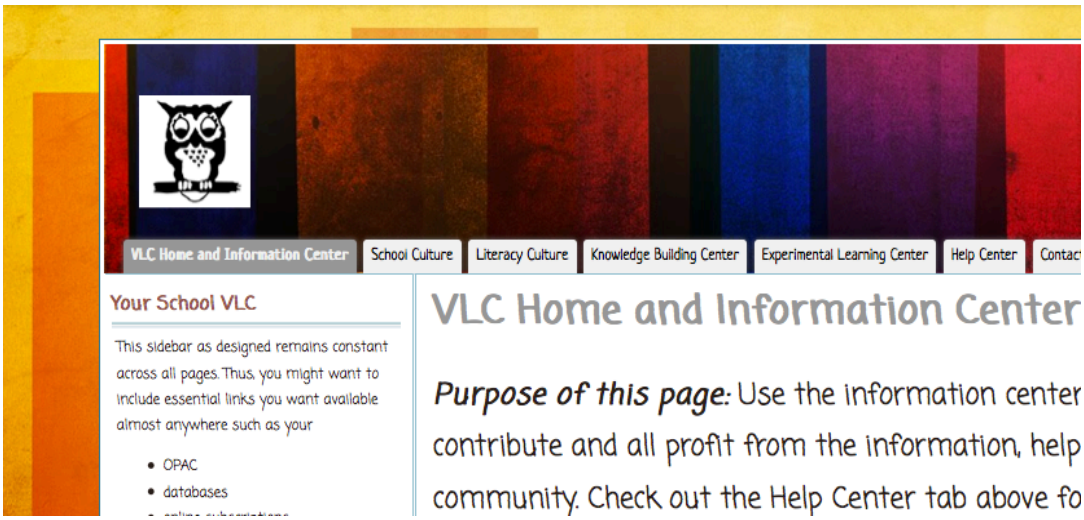
Don't like the old books at the top of the VLC page? Here is how to change that. Google has a group of standard themes for the top and sides of your site. You can use any of those but you can also search the theme gallery for hundreds of other examples.

You go to "More", "Manage this Site", or "Themes" (at the bottom).

We selected the tab at the top right that allowed us to search the gallery, then scrolled through many many possibilities in education, and came up with one we liked:



You can then add to the header at the top a variety of logos and other features. We found a logo of the school and then clicked on "Edit Sidebar", "Header Height Change Logo", then browsed to find out logo picture and saved. Here is the result:



Various tutorials on the Web and on Google's official help site can help you create something that fits your own school. Here are a couple of excellent tutorials created by Google:

https://sites.google.com/a/flippededucation.com/flippedevents/home/singapore-google-apps-summit/google-sites-for-teacher-websites-and-student-projects

https://sites.google.com/site/edsitedesign/home

Changing the Footer at the Bottom of the page

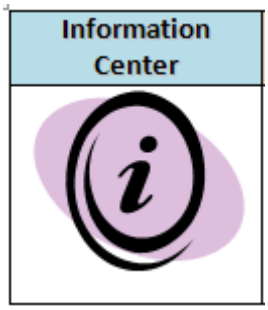
After downloading the template so that it is your own, you can change the footer by clicking on "Edit Sidebar." Almost at the very bottom of the various things you can do, it allows you to edit the footer. Like a lot of things you would like to add or change, it is worth investigating every single part of the managing and editing the sidebar editing page to discover various opportunities and how they work. You can also google questions to find various tutorials or blogs where various folks have made suggestions. One warning however, Google is constantly updating and changing things, so a fix suggested sometime in the past may not work.

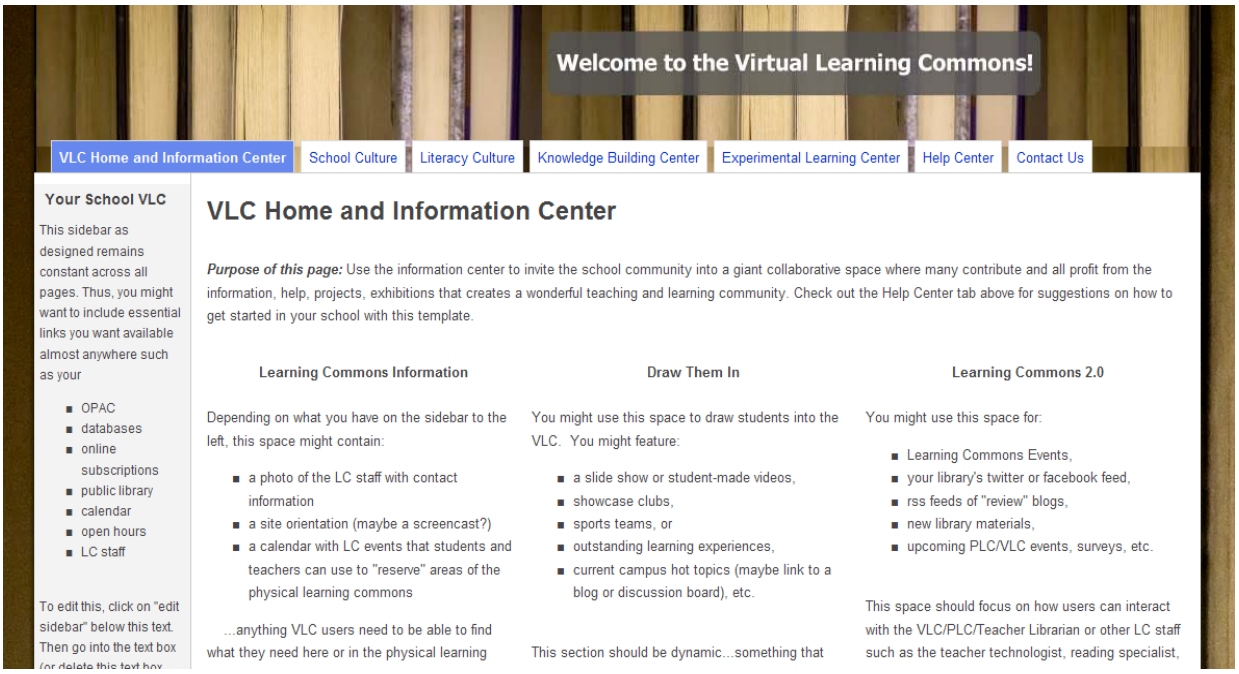
Please Use Our Template

In this chapter we have tried to clarify the process of pulling down the VLC Template and making it your own. This in itself may seem complicated to a first time user, but it is really a straightforward process. Building a complete VLC site from scratch is much more complex, so if you are a novice please use our template so you can experience success right away. This template was developed by applying the collective experiences of many keen minds but it is only a template, a framework for the growth of a rich learning community. The real fun begins now!

Chapter 7

Start with the Information Center

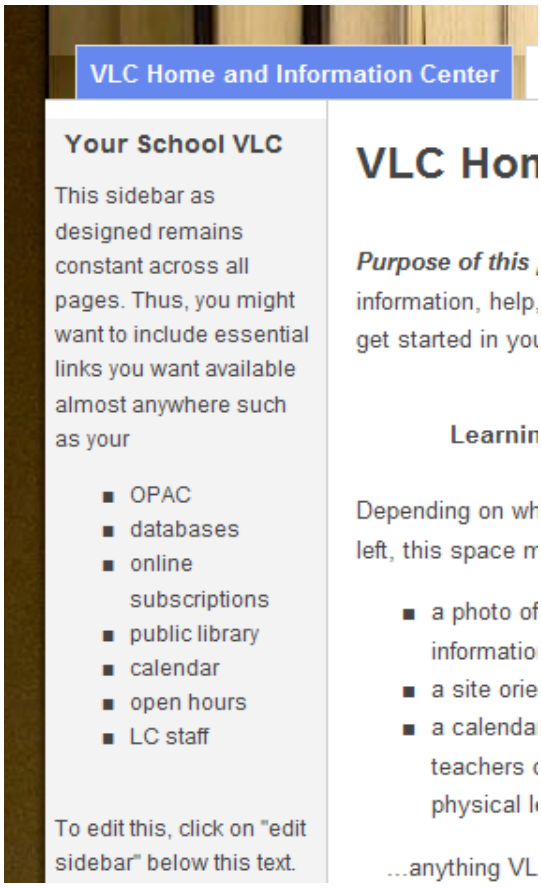




The Information Center of the Virtual Learning Commons is the introductory page and overview of the VLC as a whole. Not only does it provide general information and links to the entire VLC, but it is a place that draws clients in. When students or adults in the school open up their browsers, they need to have the VLC url bookmarked or easily accessible so that they can easily enter this learning community.

As the template is constructed, there are four parts to the Information Center, which can all be altered as needed by the creator of a local VLC. The function of each part is as follows:

The Sidebar



The sidebar of the Information Center contains links that are needed on every page of the VLC. It is the ever present navigation bar to important sources useful to students and adults. These might include links to:

- OPAC
- Public Library
- Other libraries and museums
- Major websites
- Databases
- District or Regional Resources
- School or District Main Website
- State Resources
- Other Community Resources

The sidebar should not have links to the various ports within the VLC because these tabs will automatically be at the top of each page.

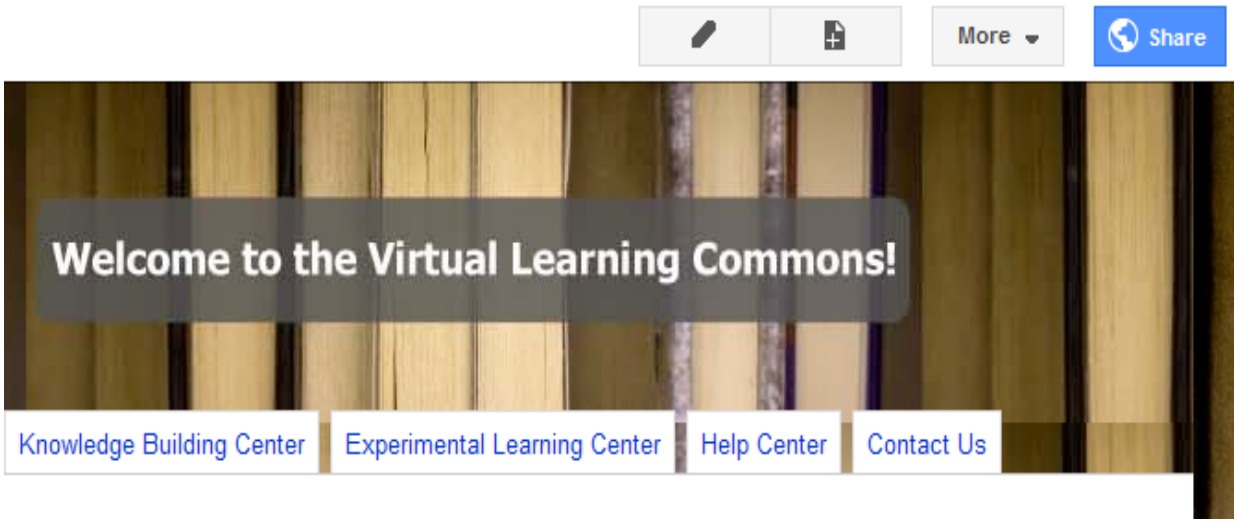
Editing the Sidebar

Owners of the site can edit the sidebar. Here is the current path to do so: "Edit sidebar; Sidebar: Text; edit". The sidebar needs to be functional, however visual enhancements are possible. You can change fonts, colors, add themes, and even change the size and location of your sidebar.

For more sophisticated work on the sidebar, search for tutorials about the Google Sites sidebar.

Information Spaces

The template divides the main part of the Center into three columns. The left and right columns are recommended as spaces for information about activities, links, calendars, etc. The centre column is the hook into the VLC. It is the place where you try to draw traffic into the VLC as a whole.



To edit these columns, click the pencil tool at the top right of the screen; erase our text and add your own. You can not only add text but also add pictures, embed videos, and put in all sorts of links. Look under the INSERT tab to discover the possibilities. Here is our list of suggestions for these three columns:

Learning Commons Information

Depending on what you have on the sidebar to the left, this space might contain:

- a photo of the LC staff with contact information
- a site orientation (maybe a screencast?)
- a calendar with LC events that students and teachers can use to "reserve" areas of the Physical Learning Commons…anything VLC users need to be able to find what they need virtually or in the Physical Learning Commons.

Draw Them In

You might use this space to draw students into the VLC. You might feature:

- a slideshow or student-made videos,
- a showcase for clubs,
- a showcase for sports teams,
- a showcase for outstanding learning experiences,
- current campus hot topics (perhaps link to a blog or discussion board), etc.

This section should be dynamic…something that makes students want to "check in" and see what's new. It might also be brought forward from the School Culture page so users can click here to connect.

Learning Commons 2.0

You might use this space for:

- Learning Commons Events,
- your library's twitter or facebook feed,
- rss feeds of "review" blogs,
- new library materials,
- upcoming PLC/VLC events, surveys, etc.

This space should focus on how users can interact with the VLC/PLC/Teacher Librarian or other LC staff such as the teacher technologist, reading specialist, etc.

These columns are not unlike the helpful links on traditional library websites and the various items should change regularly along with the current programs and connections to the Physical Learning Commons and/or the school. Your iTeam or focus groups can help you make the best decisions on what works and what doesn't.

Making the Information Center Usable, Useful and Irresistible

"The library has to be somewhere and everywhere. We need to be better when users are in the virtual library space than when they cross the threshold of our physical library space." (Janes, 2008)

As we build the Information Center of the Virtual Learning Commons, it is extremely important to be thoughtful about design factors. The Information Center will become the main point of entry for users of the Commons. The Information Center houses increasingly large collections of digital content and opens the door for exploring print and other resources housed in the physical library space. In this context we need to focus on the usability of the Information Center website, and more importantly its usefulness and desirability.

When students and teachers visit the Physical Learning Commons they have made some effort to get there and are likely to stay a while, particularly if we have been intentional about creating an open, flexible, and engaging space. If they enter the Information Center website and find it disorganized, unappealing, or difficult to navigate, leaving is but a click away. In this reality, we need to think about the online Information Center as the learning program's front line. And just as in the physical space, design matters. Some of the things that make our physical spaces appealing, useful, and desirable are: how resources are presented, signage and other visual cues that foster independence amongst users, differentiated access points for the varied needs of all learners, and effective use of space. Similar design considerations can likewise improve the user experience in the Information Center and in the entire Virtual Learning Commons.

Design Considerations That Draw Users In

"After all usability really just means making sure that something works well: that a person of average (or even below average) ability and experience can use the thing - whether it's a Web site, a fighter jet, or a revolving door - for it's intended purpose without getting hopelessly frustrated." (Krug, 2006)

In his influential and very readable book about web design, *Don't Make Me Think* (2nd ed), Stephen Krug gives recommendations for making websites usable and useful. Here we adapt his advice to the context of the Information Center website. As Krug admonishes in his now trademarked mixed metaphor, "It ain't rocket surgery!", thoughtful design does not need to be complicated, and is not dependent on the sophistication of your software. No matter the platform which is being used for the website, or the apparent constraints you may be working under, keeping the following simple principles in mind will ultimately make it far more probable that learners entering the door of the Online Information Center will find it appealing and useful enough to continue their journey into the even deeper riches of the rest of the Virtual Learning Commons.

Make it Clear and Self-Evident

- Make the intent of each page clear and self-evident.
- Use plain English for page names, headings and labels. No library lingo or biblio-babble allowed!
- Avoid cleverness. It might make a catchy title, but to the uninitiated it is only confusing.

Make It Visually Appealing and Well Organized

- Avoid clutter. A web page can be rich in content without being cluttered.
- Clearly delineate the areas of the website so that users can find what they need with a visual scan.
- Make the most important elements the most obvious.
- Use color effectively to contribute to the clarity of the page.
- Use visual cues. For example, use the button graphics provided by database vendors. A student is far more likely to remember that bright green button on the top right-hand corner of the page than the name of the database is represents.

Make it "Write" for the Web

- Leave text-intense content for other formats. Meaning should be obvious through skimming and scanning.
- Limit 'happy talk' to promotional materials, or to the initial hook on the homepage, or to a specific area. Be clear and concise.
- Avoid library lingo and biblio-babble. Even terms that we think are clear, like 'reference' or 'monograph' are not necessarily understood by our clientele.

- Describe things simply and concisely. A long description of the search characteristics and content of a database will likely not be read, and does little to help the novice user.

Provide a Clear Navigation Path

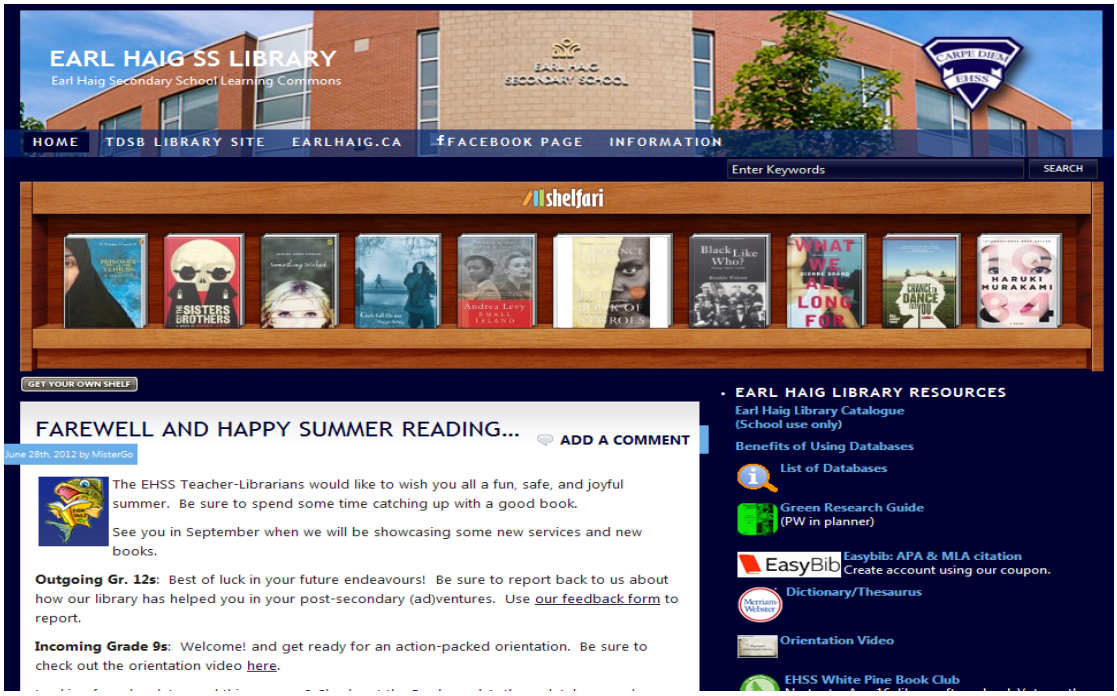
- Name every page and make page naming simple, consistent, and clear.
- Make sure that top-level navigation is visible on every page.
- Your hierarchy should make sense. Avoid nesting pages too deeply.
- Provide a clear path. Users will explore the site more deeply if there is a clear path back to their starting point.
- Your website should not require instructions for use (i.e., a 'How to Use This Website' page). Navigation should be self-evident.

Demonstrate Goodwill: Make It User-Friendly

- Make the site a pleasure to visit and easy to use.
- Keep it current.
- Make sure that everything works, and fix it promptly when it doesn't.
- Make it easy to access protected resources. For example, one single portal to password-protected content facilitates access, while complicated procedures for home access hinder access and scare people away.
- Find ways to simply and clearly provide help where it might be needed.

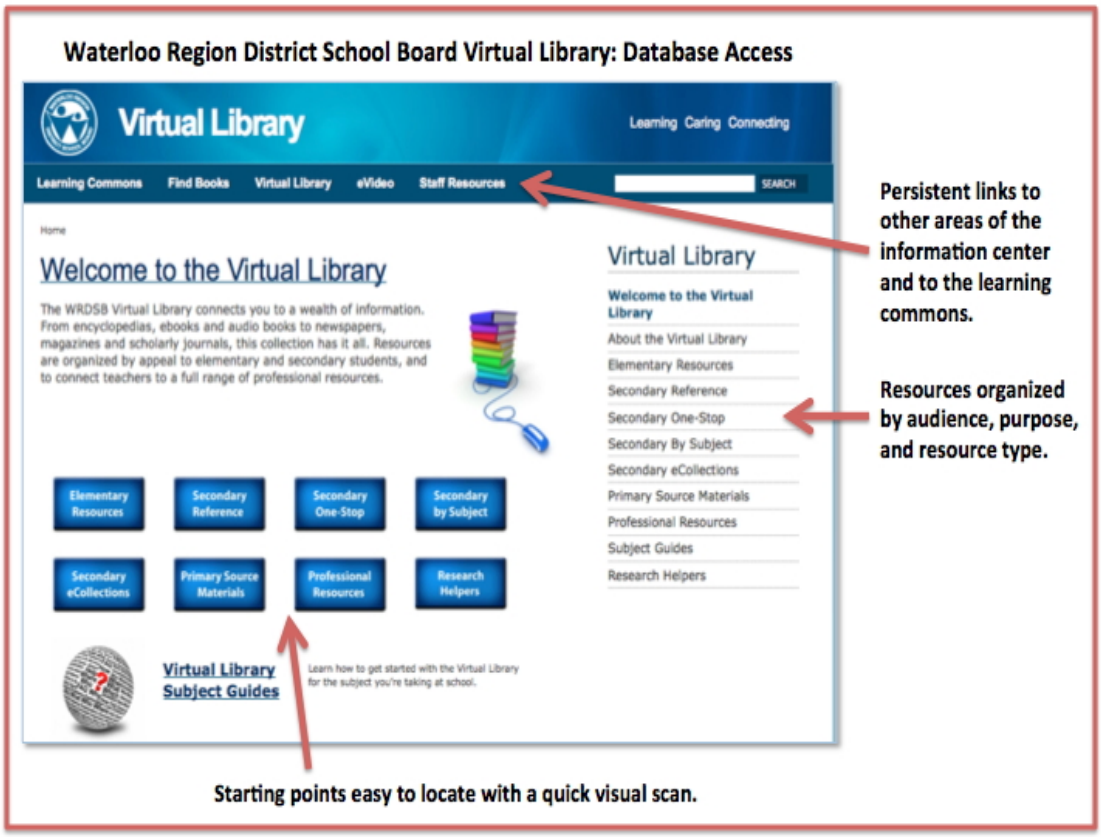
Simple, User-Friendly Design Examples:

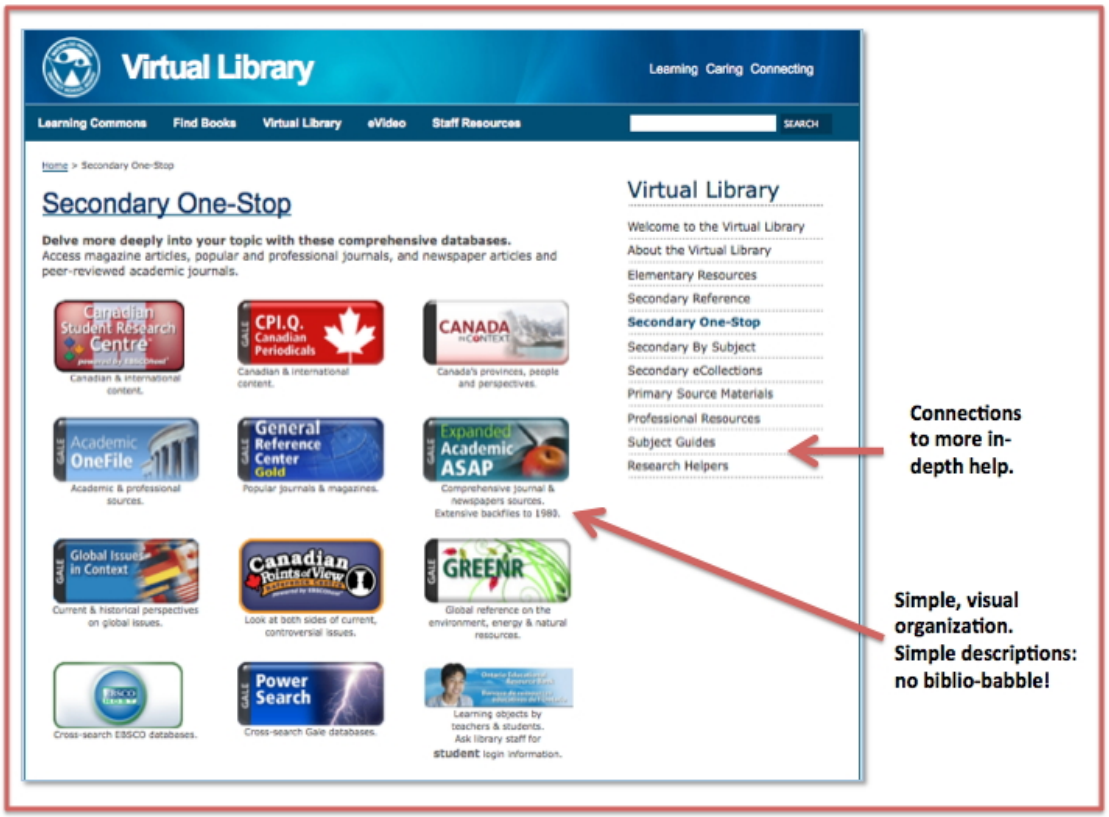
Students are obviously the center of attention at Loyola School VLC.
https://sites.google.com/site/loyolaschoolvlc/home



An inviting and invitational information portal at http://earlhaig.ca/library/

Embed videos, have some fun with a Voki at http://lc.henrywisewood.ca/


Waterloo Region District School Board Virtual Library: Database Access
Virtual Library
Learning Caring Connecting
Learning Commons
Find Books
Virtual Library
eVideo
Staff Resources
SEARCH
Home
Welcome to the Virtual Library
The WRDSB Virtual Library connects you to a wealth of information. From encyclopedias, ebooks and audio books to newspapers, magazines and scholarly journals, this collection has it all. Resources are organized by appeal to elementary and secondary students, and to connect teachers to a full range of professional resources.
Elementary Resources
Secondary Reference
Secondary One-Stop
Secondary by Subject
Secondary eCollections
Primary Source Materials
Professional Resources
Research Helpers
Virtual Library Subject Guides
Learn how to get started with the Virtual Library for the subject you're taking at school.
Virtual Library
Welcome to the Virtual Library
About the Virtual Library
Elementary Resources
Secondary Reference
Secondary One-Stop
Secondary By Subject
Secondary eCollections
Primary Source Materials
Professional Resources
Subject Guides
Research Helpers
Persistent links to other areas of the information center and to the learning commons.
Resources organized by audience, purpose, and resource type.
Starting points easy to locate with a quick visual scan.


Virtual Library
Learning Caring Connecting
Learning Commons
Find Books
Virtual Library
eVideo
Staff Resources
SEARCH
Home > Secondary One-Stop
Secondary One-Stop
Delve more deeply into your topic with these comprehensive databases.
Access magazine articles, popular and professional journals, and newspaper articles and peer-reviewed academic journals.
Canadian Student Research Centre
Canadian & international content.
CPI.Q. Canadian Periodicals
Canadian & international content.
CANADA in CONTEXT
Canada's provinces, people and perspectives.
Academic OneFile
Academic & professional sources.
General Reference Center Gold
Popular journals & magazines.
Expanded Academic ASAP
Comprehensive journal & newspapers sources. Extensive backfiles to 1980.
Global Issues in Context
Current & historical perspectives on global issues.
Canadian Points of View
Look at both sides of current, controversial issues.
GREENR
Global reference on the environment, energy & natural resources.
Cross-search EBSCO databases.
Power Search
Cross-search Gale databases.
Learning objects by teachers & students. Ask library staff for student login information.
Virtual Library
Welcome to the Virtual Library
About the Virtual Library
Elementary Resources
Secondary Reference
Secondary One-Stop
Secondary By Subject
Secondary eCollections
Primary Source Materials
Professional Resources
Subject Guides
Research Helpers
Connections to more in-depth help.
Simple, visual organization. Simple descriptions: no biblio-babble!

Who can help?

No doubt the teacher librarian will head up the Information Center portal. The entire school community will depend on the professional organization and management of this space. However feature stories and visuals to hook visitor's attention and draw them into exploring the VLC will come from everyone. Check the school Culture page every day and select an item to highlight on the front page Information Center. Ask both adults, students, and the iTeam to contribute ideas. Conduct a survey of students using a Google Form to test the waters regularly until you are satisfied that the draw is working.

TIPS for Success—Assess Your Design

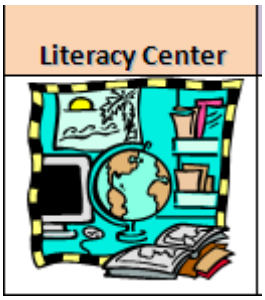
The following rubric may help you to assess the success of the design elements of your Information Center website. The best way to assess success is by observing how people use it, then gathering feedback and appropriately modifying the site. Today's students have come to expect a lot of functionality from the web. By paying attention to design principles we can make our Information Centers appealing, useful and user friendly, invite our learners in, and be confident that they will want to return.

A Simple Rubric to Assess the Usability and Usefulness of the Information Center Website

Developed by Anita Brooks Kirkland - Based on Krug's Laws of Usability (Krug, 2006)

Criteria	Level 1	Level 2	Level 3	Level 4
Clarity: Making it self-evident	Intent of pages is very inconsistent or not self-evident. Headings and labels are confusing. Too much library lingo instead of plain English. The site is confusing, with or without instructions.	Intent of pages is inconsistent or sometimes not obvious. Headings and labels are mostly understandable. Some library lingo or jargon used. Instructions too long and/or unclear.	Intent of pages is obvious. Headings and labels are in plain English, with a minimum of library lingo or jargon. Clear explanations are provided where absolutely needed.	Intent of the pages is obvious. Headings and labels are in plain English, with no confusing library lingo or jargon. There is no need for instructions, because the intent is so clearly and usefully laid out.
Visual organization and appeal	Site is visually cluttered, with distracting and competing elements. Important elements are difficult to locate. Colors or color combinations are visually distracting.	Site is somewhat visually cluttered, with distracting and competing elements. Some important elements are difficult to locate. Colors or color combinations are somewhat visually distracting.	Visual elements are clearly delineated and organized. The most important elements are the most obvious. The look is uncluttered. Colors and color combinations add to the clarity of the page.	Visual design adds value to the site. Elements are clearly delineated. Important elements are always obvious and featured. Colors and color combinations add to the clarity of the page. Very attractive.
Writing	Site is very text-intensive. Meaning cannot be achieved through skim and scan.	Writing is inconsistent: some pages / sections are concise, others not. Skim and scan reading reveals meaning in some areas, not in others. Instructions are needed for this site, and may or may not be provided.	Writing is concise and to the point. There is minimal 'Happy talk', and it is limited to the homepage or other promotional areas. Meaning can be discovered through skim and scan reading techniques. No instructions needed!	Writing is concise and to the point. There is minimal 'Happy talk', and it is limited to the homepage or other promotional areas. Meaning can be discovered through skim and scan reading techniques. No instructions needed!
Navigation	Page naming is inconsistent. Headings are rarely present. Top level navigation is either not evident on all pages, or inconsistently so. There are no 'breadcrumbs' to retrace your path.	Page naming is inconsistent. Some pages may have a heading, others not. Top level navigation is always present. The path to new information is clear. The path you used to get to a page may or may not be clear.	Every page is named. There is a heading to each page. Top level navigation is always present. The path to new information is clear. The path you have used to get to a page is indicated, so that you can retrace your path.	Every page is named. There is a heading to each page. Top level navigation is always present. The path to new information is clear. The path you have used to get to a page is indicated, so that you can retrace your path.
Goodwill Factors - "User-Friendliness"	The site is mostly difficult to use. Much of the site is outdated. There are many broken links. It is difficult to recover from areas, and the site provides little to no help.	The site is inconsistent – easy to use in some areas, but not in others. Updates are inconsistent. The site helps in some areas, but not in others.	The site is engaging and easy to use. It is current: update dates are indicated. Links work. It's easy to find the way back if you go astray within the site. The site provides useful tips and tools to help users find what they need.	The site is engaging and easy to use. It is current: update dates are indicated. Links work. It's easy to find the way back if you go astray within the site. The site provides useful tips and tools to help users find what they need.

Chapter 8
Build a Literacy Center



A foundational element of the Learning Commons is to build an entire community of literate young people who use that stepping stone to build successful careers. Rather than being a center that zeros in just on skill development, the Literacy Center of the Virtual Learning Commons takes a holistic view of the various literacies needed to thrive in the global community.

We begin with reading, writing, speaking and listening, but there are other areas to develop such as media literacy, technology literacy, plus the abilities to be creative in a socially connected world. By nurturing a positive atmosphere of both consumption, sharing, enjoyment, and mutual building, we are able to establish a place to construct and share our own creations. These creations can consist of writings from fiction to informational pieces, from poetry to creative dramatics, from music to discussions, and from individual to global enjoyment of the best. In addition, as we participate in such an environment, the skills to do so increase alongside targeted skill development in the school.

In this instance, technology is a means of consuming, sharing, creating, and discussion. We are entering an era where it becomes possible for everyone to read the same book simultaneously, write about it, discuss it, do mashups about it, build creative media around it, and even further elevate the experience by spinning off into our own writings.

Such an environment cannot be created by a single adult who is trying to "manage" a website. Instead, key adults and young people are enlisted as core contributors, builders, and designers of the environment. They then enlist participation across the school. We can go from a single book club to many operating simultaneously; from one class writing poetry to a statewide poetry writers collaborative; from book trailers for our class to book trailers created for the school or the community; from a formal video club to a community of YouTube video creators; from just consuming to creation and sharing.

Start with Focus Groups and Talented Kids and Adults

Who are the readers, viewers, and listeners in the school? Who are the writers, creators, video makers, technology experts, and the best performers? Get a group together and describe a few of the possibilities of a virtual creating, sharing, and collaboration environment and start the development of ideas. Classroom teachers will want to include the best of what is being written, composed, discussed, and produced as part of curricular projects but there is also the informal community of readers, writers, and creators to think about:

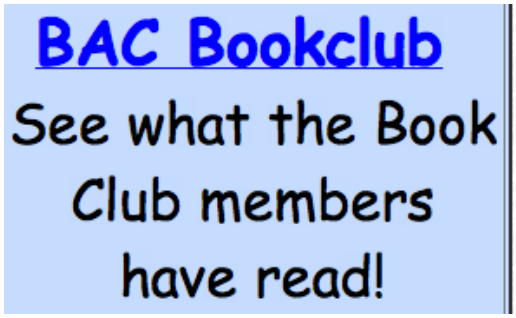
- What would such a place feature?
- What types of media could be featured?
- How would discussions of many media types happen?
- Who could help with various parts of the Center?
- What kinds of technologies could we feature?
- How could we extend beyond the school in projects or events?

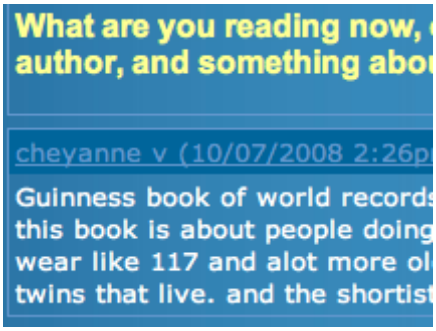
Take a Look at What is Already Happening

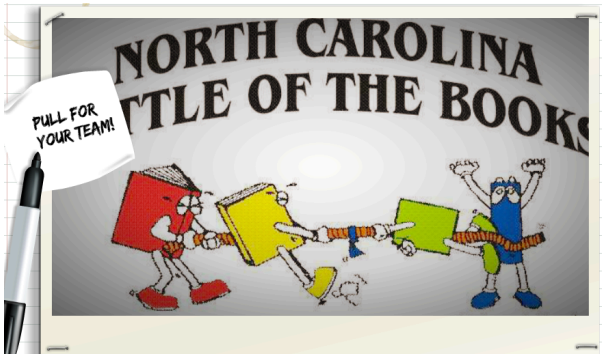
Search for ideas on school and public library websites, and on the websites of publishers and community organizations.

Books and Reading

Below from left to right and top to bottom, we find examples of a book club, a book blog, a statewide Battle of Books Contest, a statewide reading award campaign, book reviews written by students, new book announcements, summer reading lists, book trailers, reading celebrations, a graphic novel share space, author visits, and digital storytelling. There are lots of ideas for reading initiatives that can occur within a class, across the school, and beyond. Check out local, state, national and international reading opportunities.







Tell readers what you think

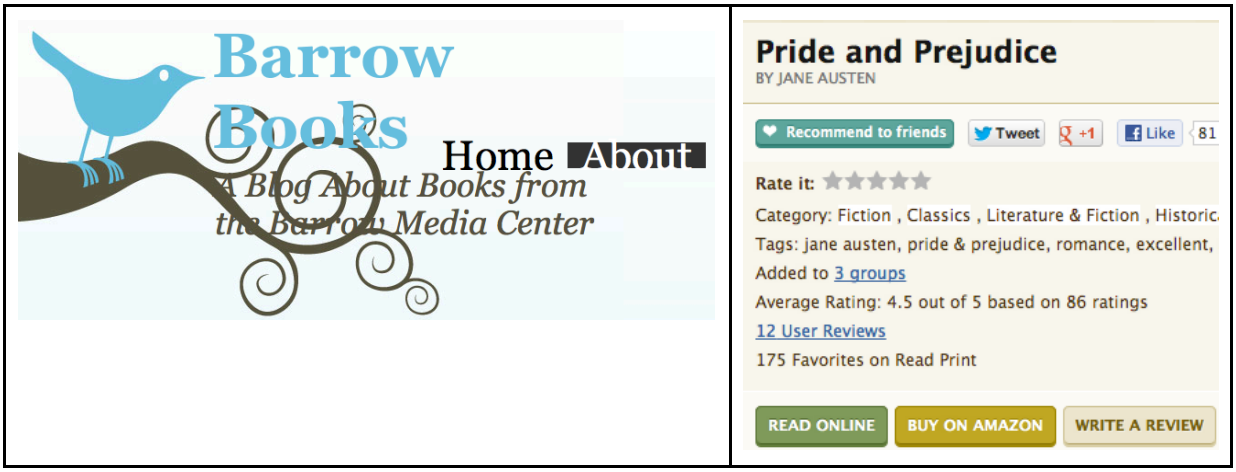
Fill in a Book Blurb on line or in person.

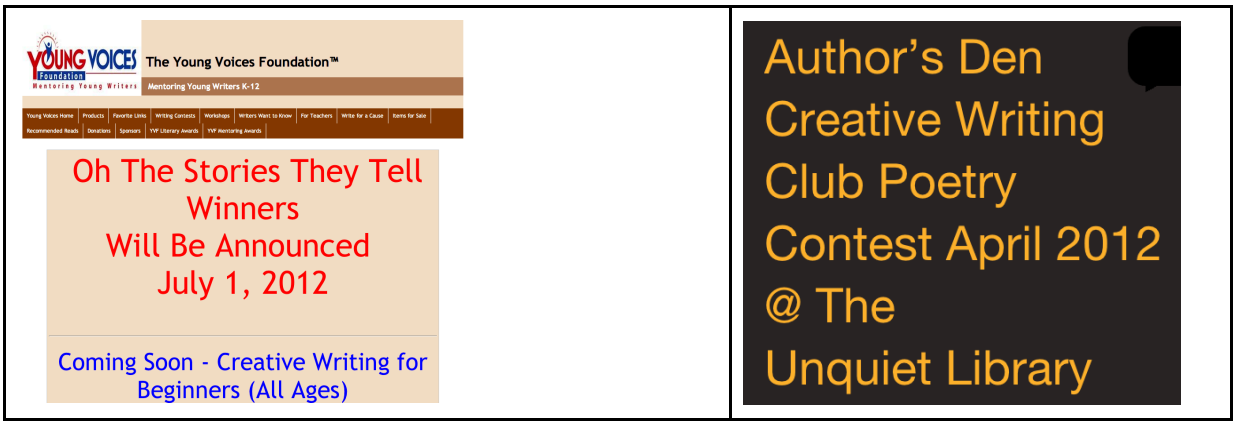
Browse our Newest Arrivals

EC SUMMER READING RECOMMENDATIONS

Writing Opportunities

Some examples are: student writing blogs, writing reviews for international and commercial sites, national writing contests for kids and teens, and in-school writing contests.





The Ridpath Literacy Collaborative describes their Interactive Writing Project in the following way:

> Interactive Writing: The teacher and students compose messages and stories that are written using a "shared pen" technique that involves the students in the writing process. The students write what they can and the teacher writes what they can't and sometimes what they have already mastered. The teacher and students negotiate what the message will be, the form of the writing project, and who the audience will be. The projects produced during interactive writing are hung in the classroom and hallways and become independent reading material during managed independent learning time. These projects are also used for shared reading and for mini-lessons during writing workshop. A lot of word work and phonics skills are reviewed during this time.

See this project at: Ridpath Literacy Collaborative: http://themediacentermemo.wikispaces.com/Ridpath+Literacy+Collaborative or at Tiny url: http://tinyurl.com/8uf5g2p

Such a project can be done using a variety of collaborative writing and production technologies such as Google Documents. For instance, a Fan Fiction project can occupy a blog or Google Document space to spark interest in creative and persuasive writing across the curriculum.

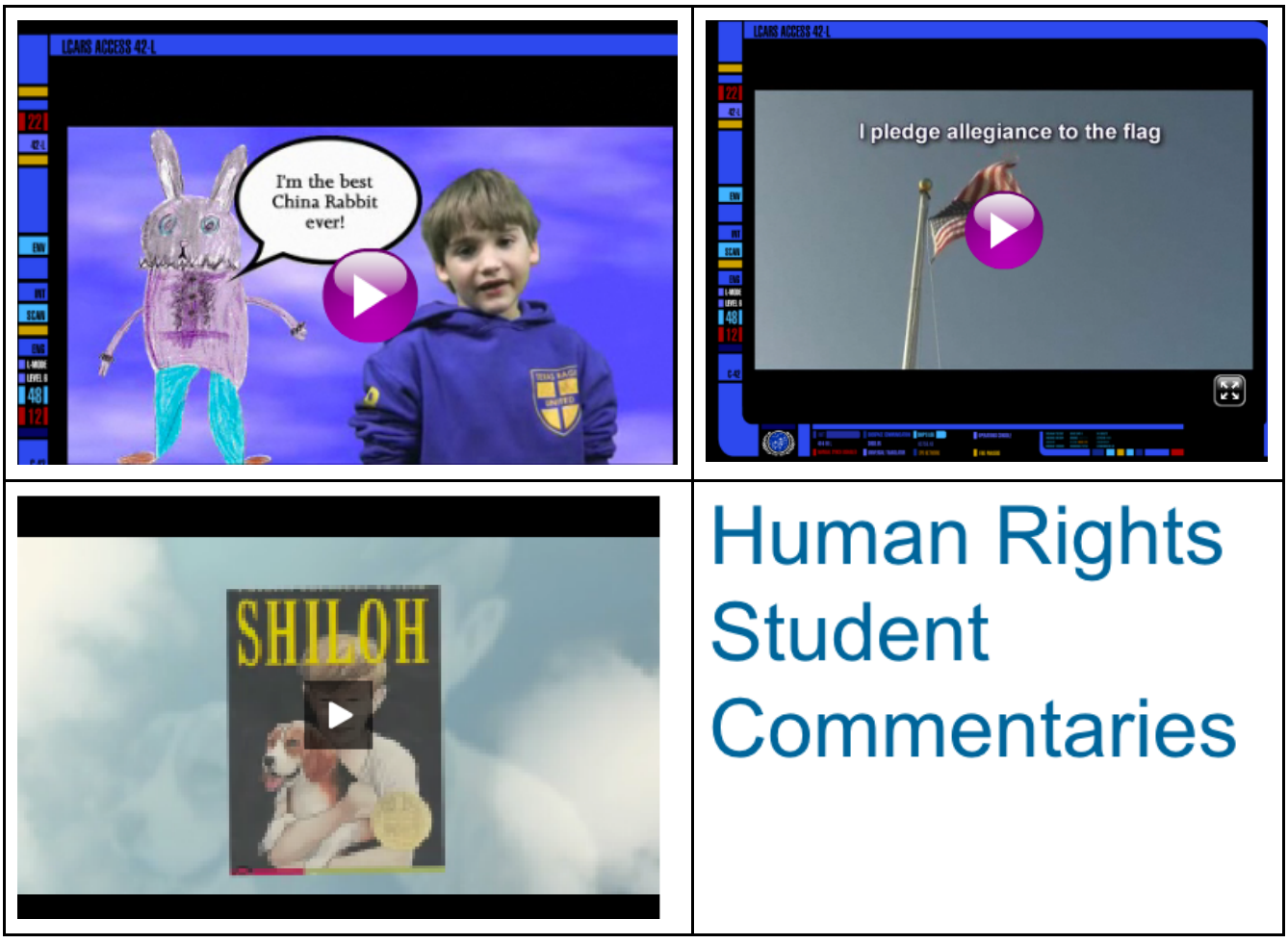
Here are some excerpts from the EDMODO blog at: http://http://blog.edmodo.com/:

> "**Pen Pals:** I teach in Delaware and use it to communicate with our pen pals in California.We write to each other using pen and paper, but we also have a group we call *Pen Pals* on Edmodo. Our students post pics and little notes to each other in between their letter writing. As a matter of fact, I met the teacher in California when I posted in the [Language Arts] community that I was looking for a 5th grade class to be pen pals with."
>
> "**Peer Editing:** My kids are doing peer editing, as I have made it a point to have students go back and make sure they have the proper punctuation, capitalization, and grade

appropriate spelling. I can't wait to see what else Edmodo will bring for the rest of the year!"

Speaking

While students can use technology to do presentations in front of the class as a whole, they can also employ technology to learn about and critique speaking events and projects done by other students. A few examples of this are: an oral presentation using voice and cartoon characters, a different child every day leading the Pledge of Allegiance via video, student created book talks, and speeches/voicethreads on a monthly theme.



As well, both the creation of videos and of audio presentations using a tool like VOKI can allow kids who would not normally get up in front of an audience a chance to develop their speaking skills in a non-threatening way.

Listening

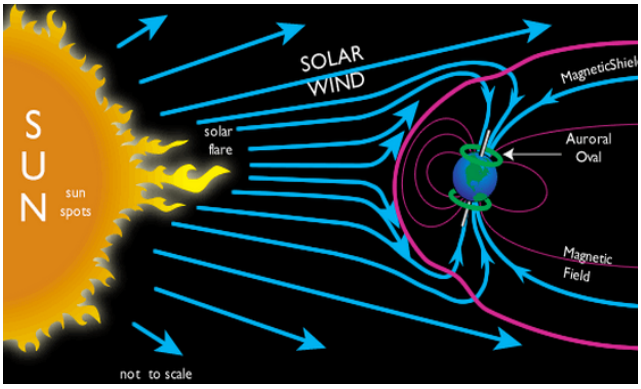
Opportunities to listen for pleasure or for serious ideas might include: poetry slams in the Learning Commons, listening lunches in the Learning Commons, interviewing and listening to experts via Skype, and an audio book library for downloading.

Content Creation and Communication Opportunities

As students prepare to share their learning, the VLC can support and inspire their creative products and presentations. The VLC can also launch student content for the benefit of the larger learning community.

Examples include: book trailers, literature to video projects, student photography exhibits, creative student tours of the Learning Commons, infographics creation, and student created alphabet digital books.

The Little Match Girl



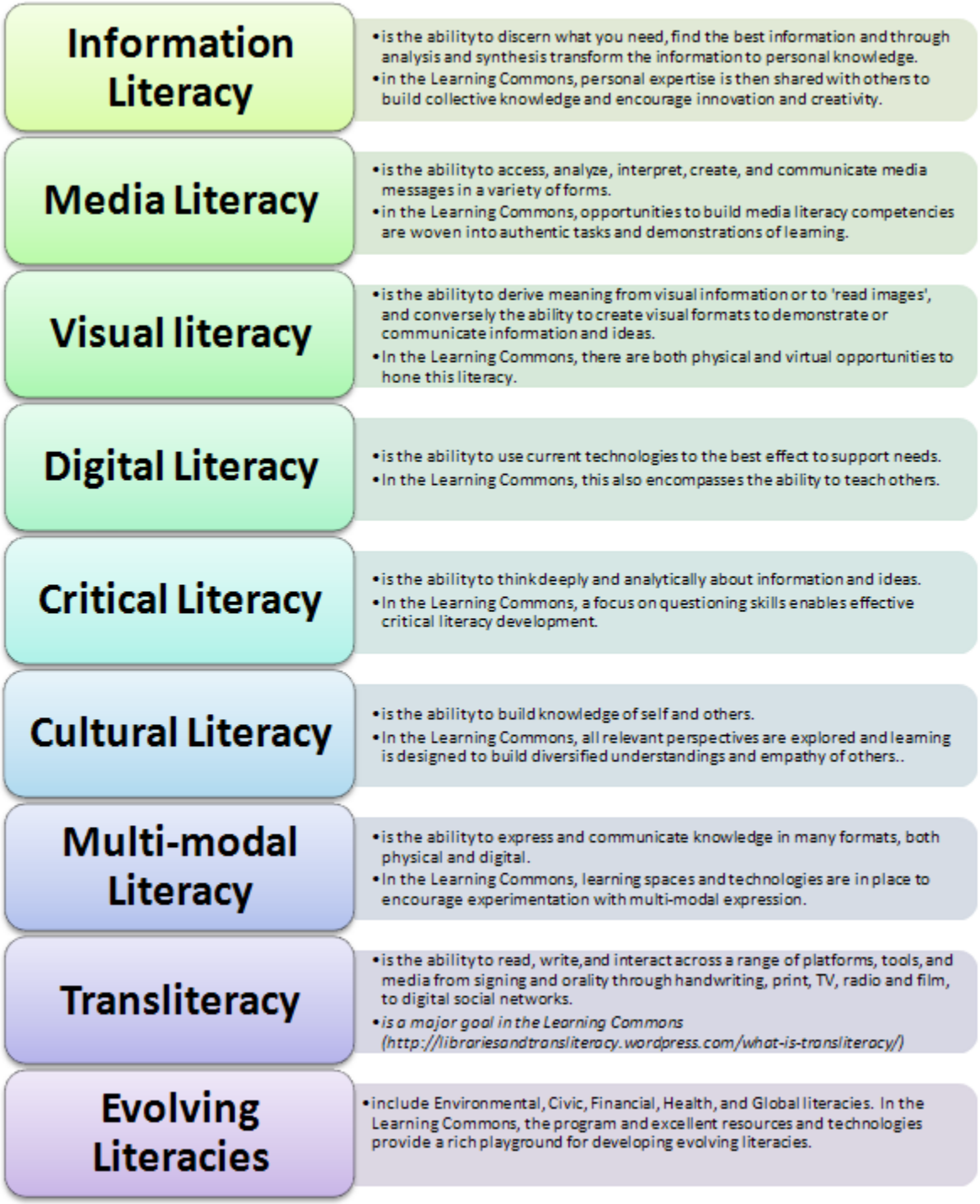
Ii

Imagination

What else counts as Literacy?

The VLC can help schools keep pace with evolving literacies and provide a playground for incubating and fostering new literacies for learning. Consider the literacies highlighted in the following chart and design the literacy portal for growth of all literacies.

Learning Literacies to Feature and Foster in the VLC



Who will Help?

Who will keep this center vibrant and attractive to both students and adults? We suggest that reading specialists, teacher technologists, avid readers, genre readers, series addicts, graphic novel readers, and book club presidents/facilitators as well as the teacher librarian adopt this center. These people might be the principal editors, but blogs allow almost anyone in the community to post ideas, requests, reviews, interesting personal adventures with literacy, and their own work.

A Word of Warning

For decades, teacher librarians have concentrated their efforts in literacy on the development of the love of reading, leaving the building of skill to others. Thus, the natural tendency is to duplicate that initiative in the VLC. If the major initiative of school improvement is focused on building excellence in the language arts, then we recommend that the VLC mirror that school-wide emphasis. If the teacher librarian works only on their agenda without embracing the school-wide agenda, teacher librarians will find themselves isolated. The literacy center of the VLC should be recognized by everyone as a place where the entire spectrum of literacy is being pushed. Thus, as elements are added to the literacy center, keep your attention focused on the larger issues. If the teachers and the students recognize this when they open this portal page, then a balanced approach welcomes collaboration and pushes the idea of a literate community.

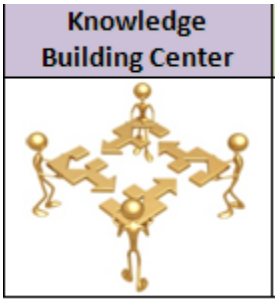
TIPS for Success

- Network with other information and literacy specialists
- Harvest ideas from public library sites and commercial sites such as bookstores
- Address school and district literacy goals and initiatives
- Make links to the real world of literacies
- Keep the featured work fresh, but archive for tracking and review.

How will you know it's working?

- Contributions will expand beyond the library literacy initiatives
- Lots of traffic on the site
- Students and teachers will be talking about it
- Contributions and contributors might mushroom and become a challenge
- The principal and superintendent will be talking about it when they speak, and the PTA will spotlight it.

Chapter 9
Create the Knowledge Building Center



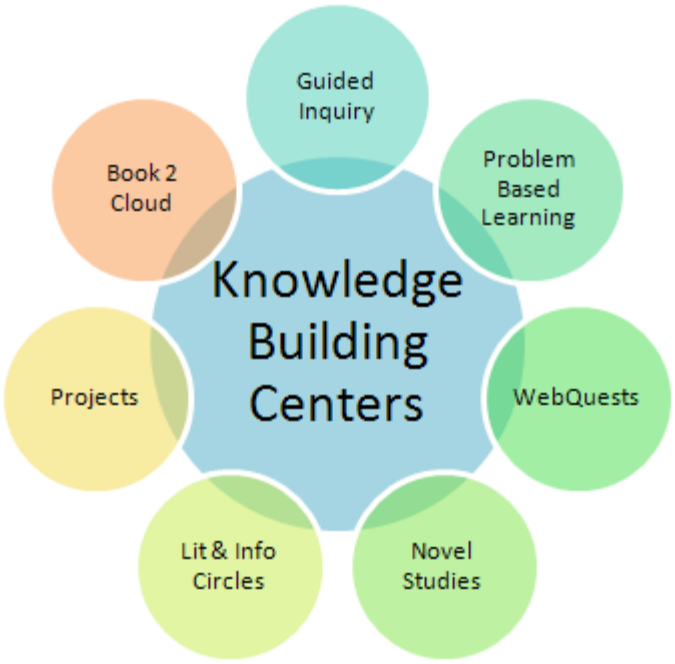
The Knowledge Building Center is the heart of the Virtual Learning Commons. This large portal is filled with live learning events, which we also call knowledge building centers or KBCs. These are miniature Google Sites, environments constructed for working and learning as a community. These collaborative learning experiences are planned, developed, co-taught, assessed, and showcased from the larger portal. The learning experiences can be conducted totally online, only face-to face, or as a combination of both. The important characteristic is that educators join forces to deliver superior learning not possible if any of the teachers were to 'go it alone' in an isolated classroom environment. In other words, by combining the expertise of classroom teachers and specialists, superior results are likely to emerge.

The very nature of construction within a Google Site makes collaboration natural in contrast to the traditional top down approach designed into many content management systems. In Google Sites, the "share" feature allows for learning experiences that can evolve with adult guides as well as with the students participating. Thus, a reading specialist, a teacher librarian, a learning leader, an administrator, an art or music teacher, and an outside expert can participate alongside the classroom teacher as students are guided and coached towards a super learning experience. From the student perspective, this collaboration can extend not just in a single class, but across grade levels, across the school, or around the world. And, the result is a self-motivated learner in charge of their own learning.

In his book, *Stratosphere: Integrating Technology, Pedagogy and Change Knowledge*, Michael Fullan calls for a new self-generating system of learning for all. He believes that to bring education into the 21st century, innovative learning experiences need to be:

- Irresistibly engaging (for students and teachers)
- Elegantly efficient and easy to use
- Technologically ubiquitous 24/7
- Steeped in real life problem solving.

Many types of project based learning experiences work very well in the KBC environment because the actual learning organization is available anywhere, at any time, and on various devices. This visual expands on some possibilities:



Virtual Knowledge Building Centers are:

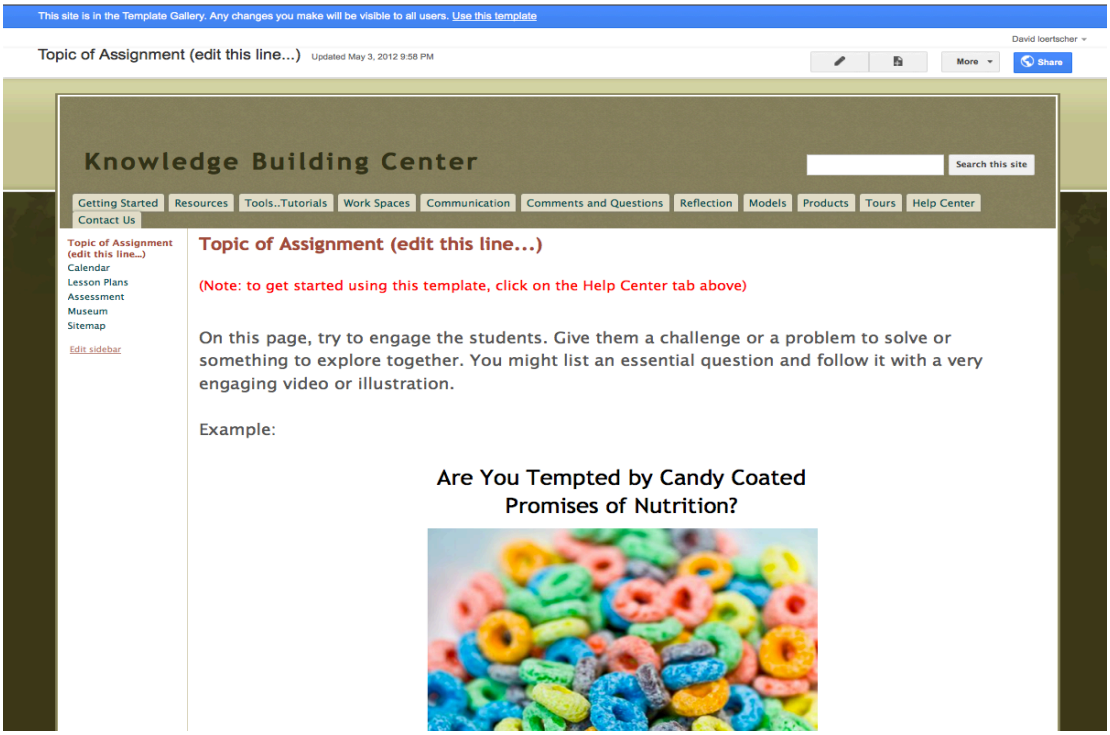
- Collaborative construction zones between adults and students
- Places to learn, solve, work, create, think, achieve, shine, demonstrate
- Participatory learning
- Higher level thinking and metacognition
- Ventures into the real world of information
- Free or almost free
- Simple to create on a variety of technologies
- Super learning experiences

(See Appendix A at the end of the chapter for criteria)

How do you construct a Super Learning Experience?

The Knowledge Building Center (KBC) template

To facilitate the creation of super learning experiences, we have constructed a KBC template at: https://sites.google.com/site/knowledgebuildingcenter/ as pictured below:

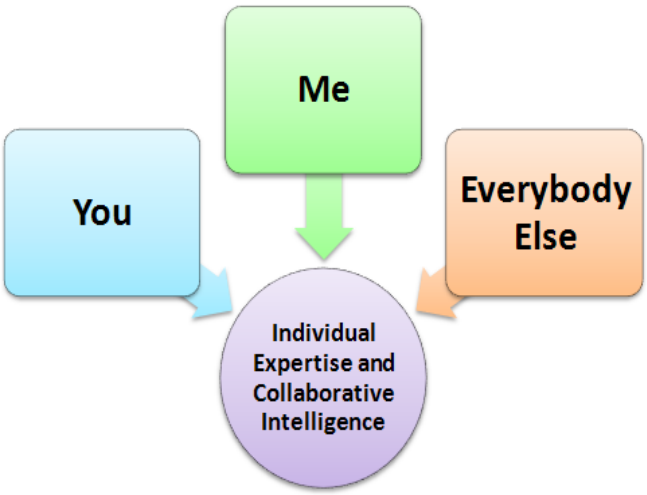


Other KBC templates to try are:

- Inquiry OSLA: https://sites.google.com/site/inquiryosla/
- T4L Inquiry: https://sites.google.com/site/t4linquiry/
- T4L WebQuest Master: https://sites.google.com/site/t4lwebquestmaster/
- BCTLA Points of Inquiry template: https://sites.google.com/site/pointsofinquiry/

Like the template for the entire Virtual Learning Commons, follow these simple steps:

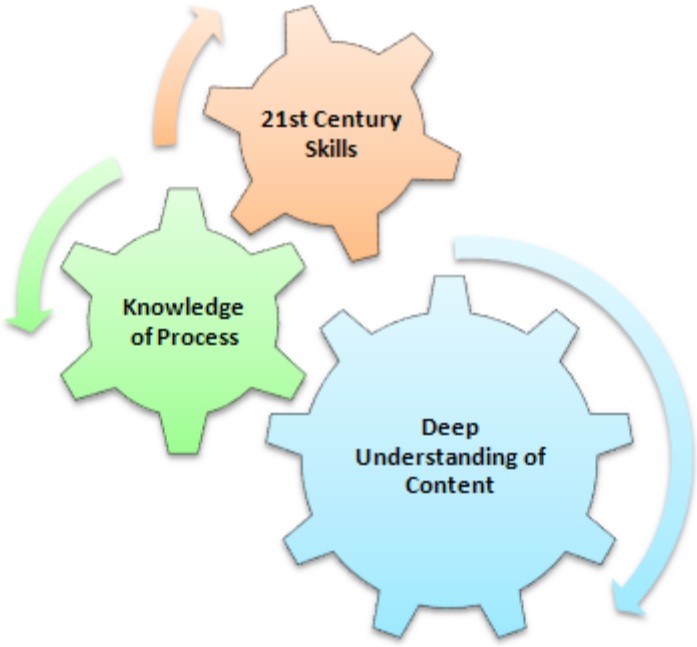
- Click on the template
- Click on "Use this template"
- Rename the template for the learning experience you want to create
- Fill in the security picture code
- Yea! You now own a KBC and can change anything you like. See the pencil picture at the upper right? That is the edit button. Check out the "More" button to manage the site.
- As with other templates, we have provided help and advice, but that is entirely negotiable as you capture the template and make it your own. If you don't know how to do something, Google a tutorial.
- Now begin construction with partners who will be participating in the experience.



The Structure of the KBC

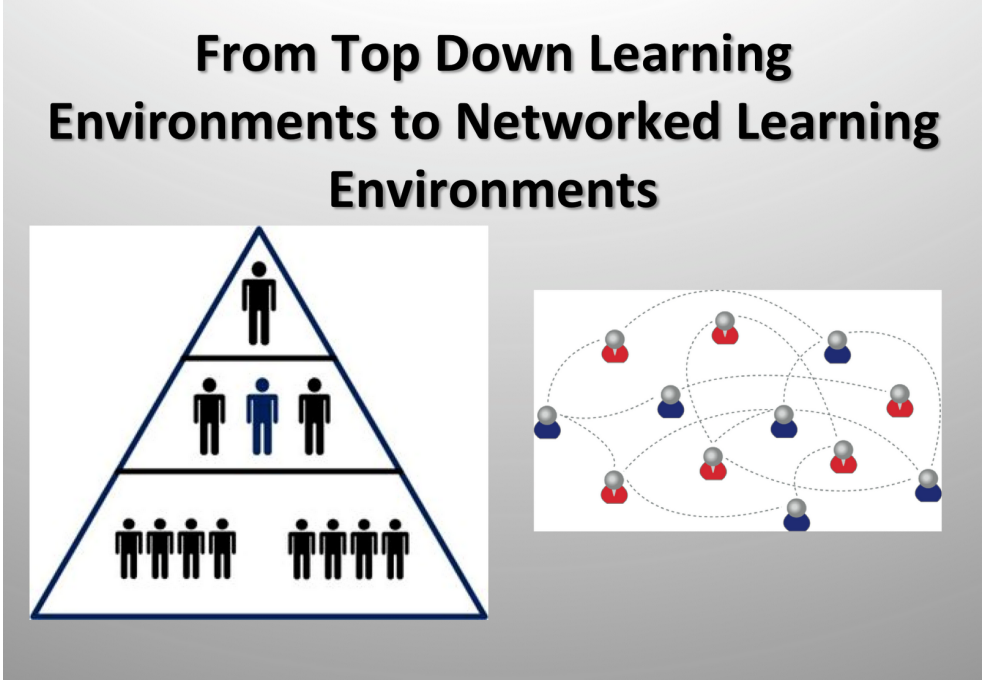
If you look at any of the templates above, you will notice that the opening page presents a problem or challenge to solve or work with. Around the page are many tabs leading to rooms where individuals or small groups do the work of the learning experience. Access to the whole area can be given to the adults and students participating in the project or each room can have separate permissions. The advantages are not only the collaborative nature but the ability to work whenever, wherever, and on whatever device to which members of the group have access. Using free and ubiquitous software allows this to happen as long as there is a connection to the Internet available. Even without a connection, students can do work at home on a device and then transfer their work to the site when a connection is available.

In the example above where sugar cereals are being studied, there are collaborative rooms for resources, tools, work spaces, communication, comments and reflections, models, and products. Users can add or delete any of these spaces as needed to fit the project at hand. What should happen in this collaborative space is a learning experience that integrates the skills needed to build understanding and accomplish the work, a clear understanding of the process of collaborative inquiry, and the expectation that these two factors will drive a much deeper understanding of the topical content of the unit. This integration is pictured below:



Choose a high-Level Instructional Design

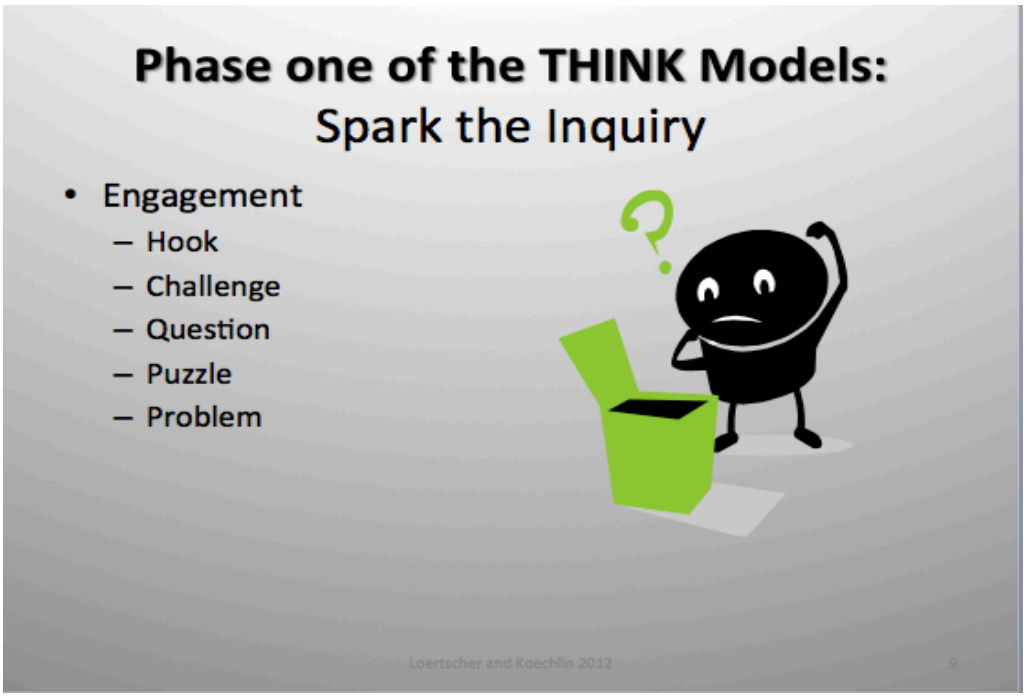
Transferring a non-collaborative top-down learning experience into a template as designed here is not likely to make any difference in the outcome. Both directive and direct teaching lessons are probably more appropriate in content management systems where strict responses to a list of assignments can be monitored more effectively. In a more open technology environment such as Google Sites, a more constructivist learning experience is likely to flourish, particularly where there is more than one adult coaching, encouraging, and mentoring the learners. This transformation from top down learning to collaborative and networked learning is pictured below:



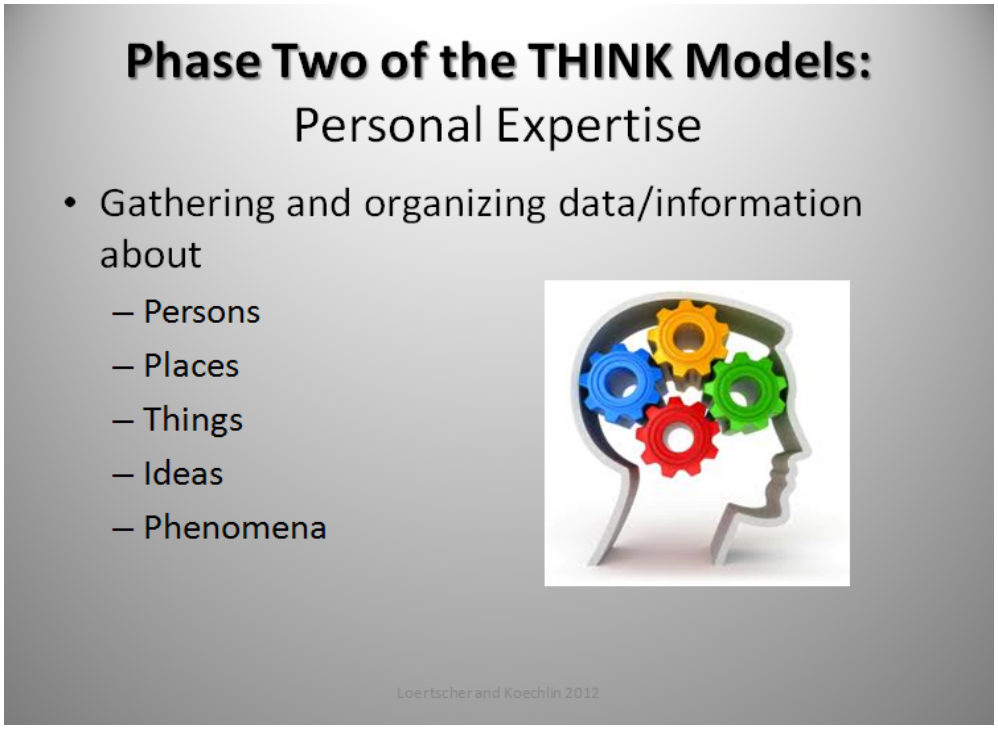
The authors of this book have created 18 Think Models that work very well in collaborative environments and that raise the stakes on both deep understanding of content and utilize learning how to learn skills to boost that content knowledge. The goal is to turn a top down learning experience into a networked learning environment. For an overview of these Think Models see Appendix B at the end of the chapter.

In all these models we see a pattern that goes beyond more behavioristic approaches. These learning experiences contain four phases as follows:

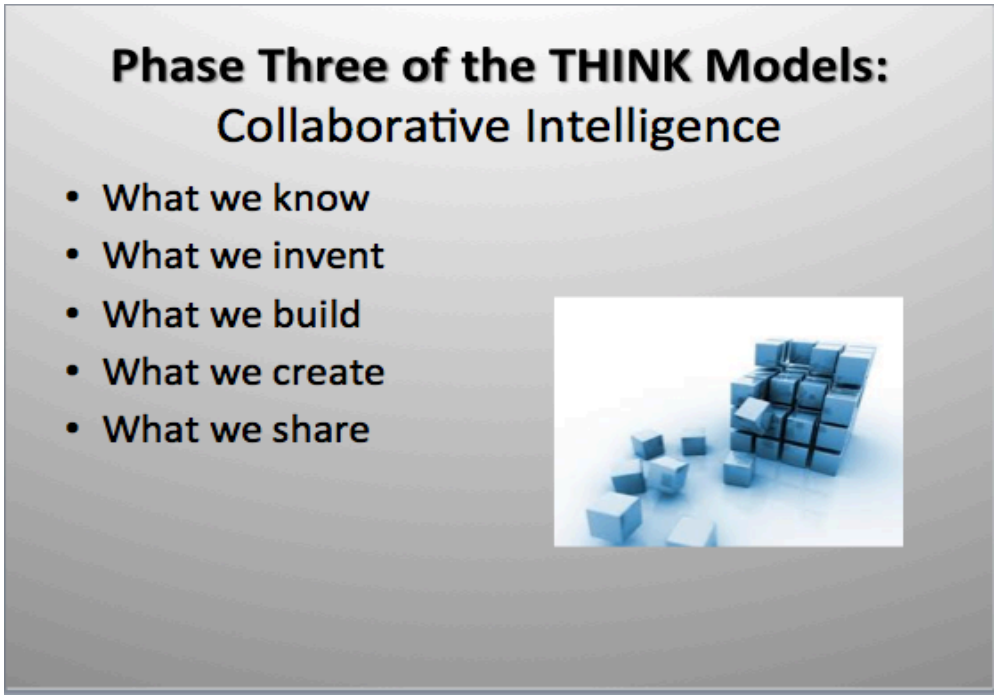
- Phase One—Spark the Inquiry
- Phase Two—Build Personal Expertise
- Phase Three—Collaborative Intelligence
- Phase Four—Metacognition.



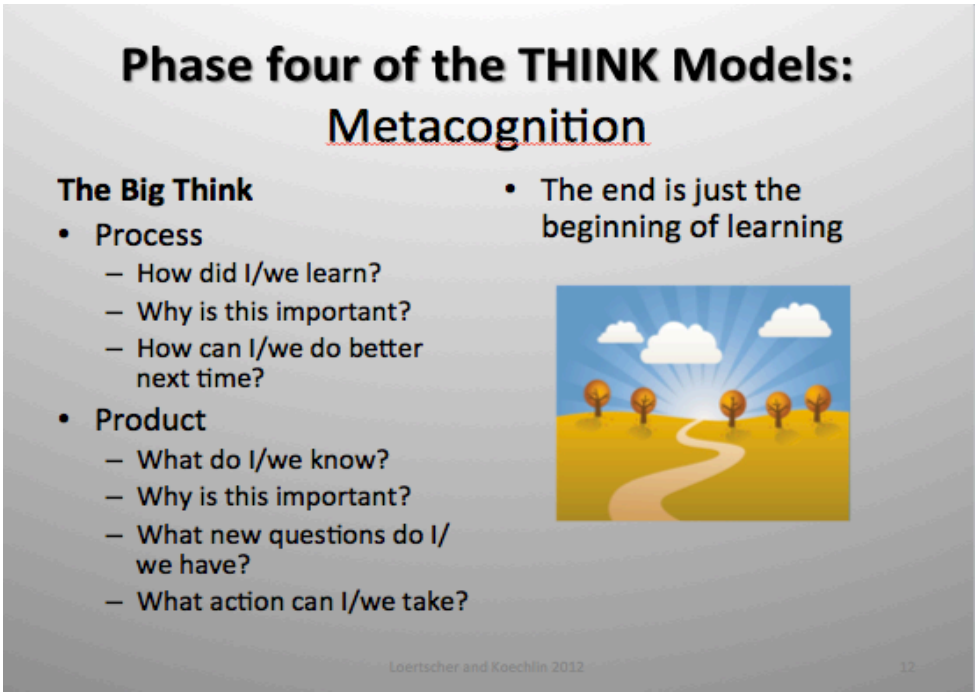
This first phase works on sparking the desire to learn. Of course there are many ways to engage learners. Keep it real and personalized. Visuals, such as a short video clip that raises issues, an emotional photo, or a powerful picture book, are often a perfect medium for sparking engagement.



In Phase Two, "Personal Expertise" centers around building and applying the information literacy skills needed in order to question, evaluate, gather, and analyze information. The learner develops personal understanding of a piece or part of the entire investigation and can demonstrate that understanding through some kind of product to show what they know and understand. It is usually the point at which many learning experiences end. In our minds, this stage puts learners in a position to explore much more deeply.



In Phase Three, "Collaborative Intelligence" is built as students share their findings, test out their theories with others, solve a high level problem, and create something new with the understanding they have built collaboratively. This stage honours the idea that learning is a social process as well as a participatory experience. Like a picture puzzle, learners will combine what they know with what others know as they fit their puzzle piece into a larger and more complex understanding. The outcome will be something that not one of the learners could have constructed on their own. As well, technology tools will enable this new and more complex picture to arise. Thus, it is not what one learner knows about one animal, person, country, or issue that is as important as is the combination of many persons, places or issues into an overall understanding of patterns, trends, and major ideas that the learners can defend or take collective action.



Finally in Phase Four, after the learning experience is over, both adults and learners do what effective athletic coaches do, and that is to 'watch the video' of last week's game in order to analyze what we know and how we learned it in an attempt to get better and better as learners and inquirers. We call this stage "The Big Think", just the beginning of the deeper **lasting** learning.
To learn more about Designing the Big Think, see Appendix C at the end of the chapter.
To assess the effectiveness of your KBC, see the rubric Appendix D at the end of the chapter.

This stage also supports what Stanford psychology professor, Carol Dweck, calls the "growth mindset "as opposed to the "fixed mindset", where students think, 'well I always get low grades so why should I try '. The growth mindset is **critical** to learning how to learn.
To discover more about the concept of mindset visit http://www.mindsetonline.com/

Some examples to explore:

This elementary unit follows the 'Jigsaw Puzzle' Model'(See Appendix E at the end of the chapter).

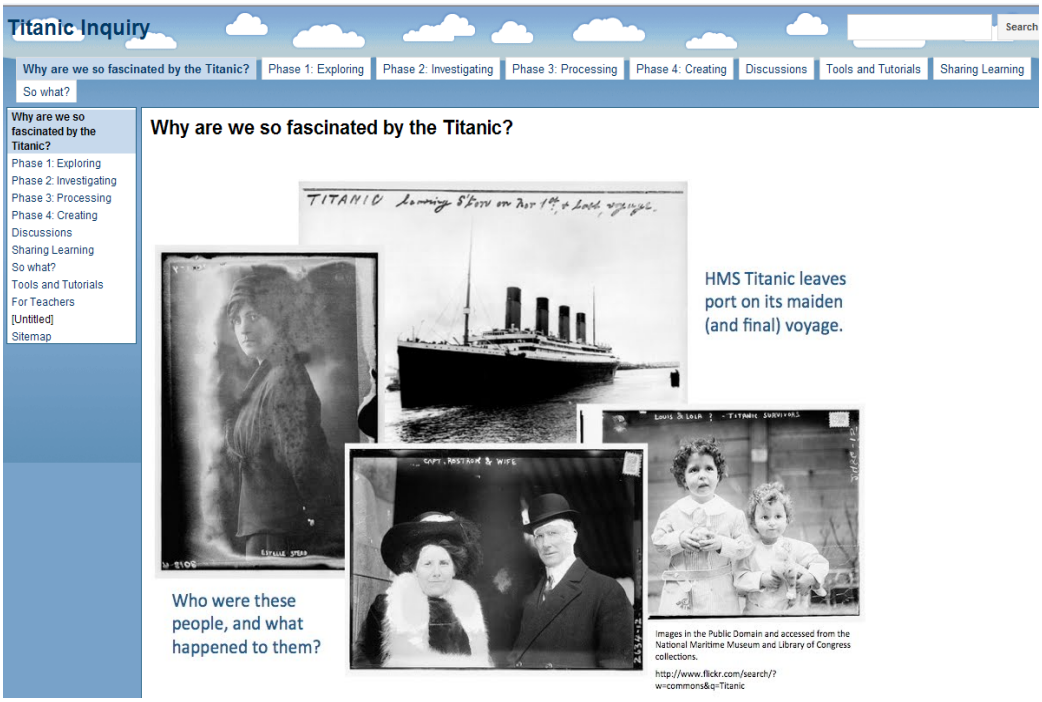
Bullying: https://sites.google.com/site/bullyingelementaryschool/

This High School KBC follows the 'Take a Position' Model: Mari Isero's Transformation about the Atomic Bomb drop in Japan: https://sites.google.com/a/lhssf.org/how-should-we-remember-the-enola-gay/

This Grade 7 KBC follows the 'Mix it up!' Think Model (#4 Advice to action and #15 Learn by doing): The Science of Baking Video tour:
https://sites.google.com/site/thescienceofbaking/tours
Full KBC: https://sites.google.com/site/thescienceofbaking

This multi level KBC follows the OSLA 4 Stage Inquiry Model. See more at www.togetherforlearning.ca

Anita Brooks Kirkland and Elaine MacKenzie have collaborated to develop the Titanic Inquiry at https://sites.google.com/site/titanicinquiry/home

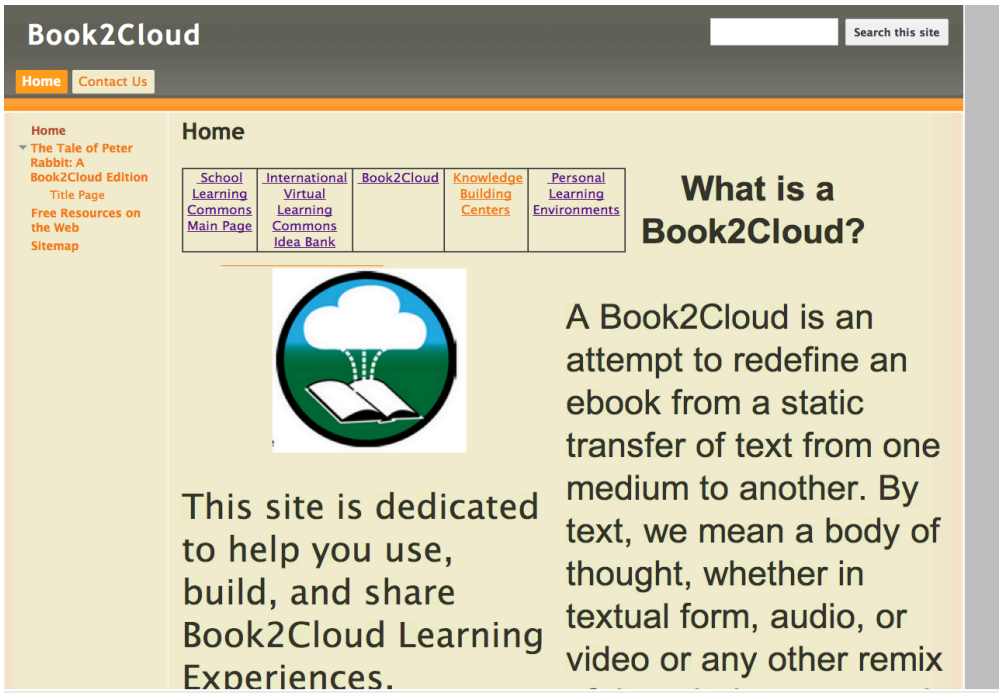


Other Possibilities for Instructional Designs

There are a growing number of ways to build inquiry and constructivist learning experiences that fit very well into the structure of the Knowledge Building Center portal of the Virtual Learning Commons. Here are three other ideas worth investigating.

Book2Cloud

A Book2Cloud experience presents learners with an engaging text, document, video, or other material that challenges the mind and requires deep investigation to create meaning. Using this "text", a virtual room is created where individuals or small groups create meaning around pieces and parts of the text and then put them together to build deep understanding of the whole. You can see many examples and explanations at: https://sites.google.com/site/book2cloud/

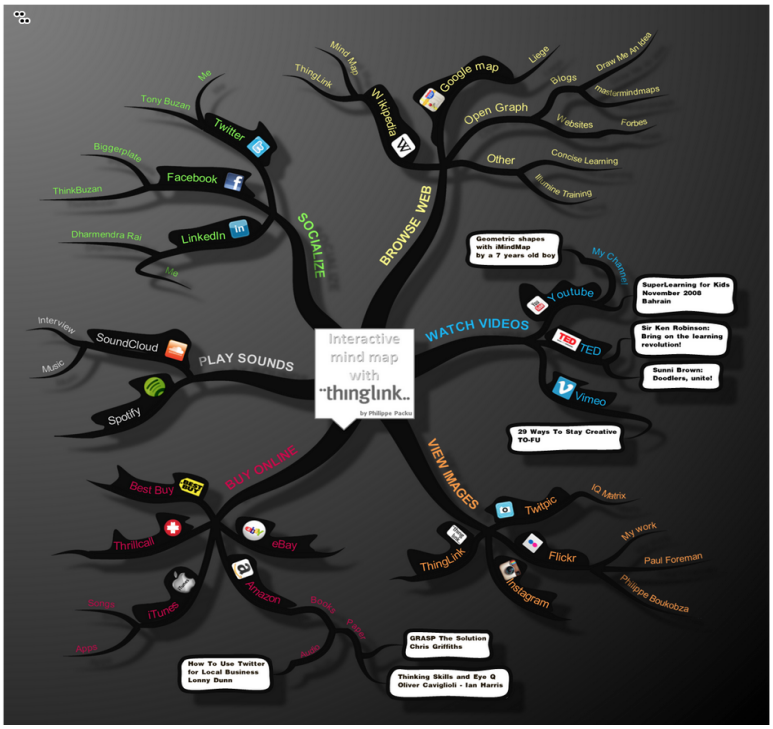


We have created a Book2Cloud template for easy construction of such learning experiences in your own school. You can find this template at:
https://sites.google.com/site/book2cloudtemplate/home

Augmented Mind Maps

More and more free mind map Web 2.0 tools are appearing where a concept can be mapped, and then best digital content can be gathered and linked to each node of the map.This activity is popularly known as digital curation. Because these tools are collaborative, multiple students can be curating around a major idea to build deep understanding across individual contributions in real time. One example of this is PearlTrees http://www.pearltrees.com . In the example below, an entire class is collecting, mapping, and thinking about sharks and rays:

Another example is ThingLink at http://www.thinglink.com/, where a picture can be made interactive with all kinds of curated materials in order to build understanding.



Flip education

Recently, Flip Education has become popular. Here, the normal class lecture is viewed prior to a class as a homework assignment along with practice problems. Then during class time when adults are able to directly help learners, projects, workshops, and inquiry happens. The Kahn Academy is just one of many valuable sources and ideas for using flip education that can be accessed online. Roxanne Clement has created a short video presentation that explains how an elementary school teacher librarian uses the Flip Classroom as a collaborative experience:
http://vimeo.com/41534463 .

Just imagine how a KBC could help Flip Your Learning Commons!

For a more complex look at the Flipped Classroom concept, see
http://www.powtoon.com/p/g2j6hZbTvDe/

For inspiration, read *The Flipping Librarian* by Joyce Valenza
http://blog.schoollibraryjournal.com/neverendingsearch/2012/08/14/the-flipping-librarian/

The Maker Faire Initiative

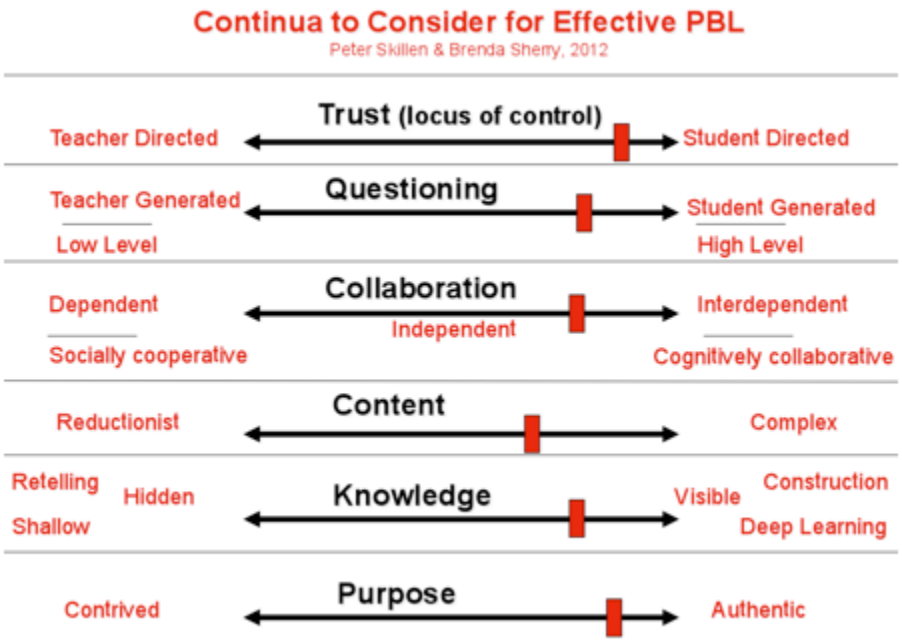
Still another idea suitable for the Knowledge Building Center is the Maker Fair idea. First, watch Dale Dougherty as he is interviewed by Steve Hargadon about developing personal expertise:
http://www.youtube.com/watch?v=2N5Z19fCJbs&feature=youtu.be

Then, check out the main Maker Faire site at: http://makerfaire.com/newyork/2012/index.html and hte initiative at: http://makered.org

Now, check in with Buffy Hamilton at the Unquiet Library and explore more Maker Fair http://www.slideshare.net/buffyjhamilton/crafting-new-narratives-of-community-connecting-creating-and-participatory-learning-at-the-unquiet-librarya-makerspace-culture-of-learning.

The So What? of Instructional Designs

Whatever instructional designs you choose for the Knowledge Building Center design, it should be apparent that they are more complex than the traditional textbook, lecture, do an assignment and get a grade directed approach. We see this higher level complexity in the literature as an opportunity to raise the bar of teaching and learning. We agree with Peter Skillen in his blog post at: http://plpnetwork.com/2012/07/13/pbl-right/ that the real impact of a new technique that raises the stakes is that it must be implemented in a way that actually makes a difference, and that it is superior to a traditional top down assignment. Skillen sees the differences and explains them in his post after presenting this visual:



The real "So What" in the VLC is that the parade of learning experiences going through this environment are those that reach toward excellence. Perhaps that is one of the side benefits of having learning experiences 'out in the open' where everyone in the school can examine them and hopefully celebrate them.

Knowledge Building Centers as a Showcase of Learning

Any or all of the ideas above for building super learning experiences as a collaboration between adults and young people are showcased in the main Knowledge Building Center portal as they start in the planning phase, happen in real time, and then become artifacts in the museum as a part of a major parade of exemplary work that can be documented and shared widely with parents and the community at large

Whenever test scores are published in any community publication, examples of super learning experiences should be described and linked to such announcements. This begins to demonstrate that learning is more than the one-dimensional test views of excellence and achievement.

Who can help?

Who would be allowed to build, to contribute to, and to edit the Knowledge Building Center of the Virtual Learning Commons? We recommend that teacher librarians and teacher technologists get the ball rolling to demonstrate how this part of the Virtual Learning Commons works, and then together get classroom teachers and the other specialists of the school who have some sort of responsibility across the curriculum on board. This would also include administrators in charge of instruction and school improvement. As a team, they then create the showcase of learning in the school, and use ongoing super learning experiences to showcase excellence wherever and to whomever would like a glimpse into what is really going on in teaching and learning.

TIPS for Success

- Make use of our templates to get you started
- Design your KBC for high thinking using one of our models
- Build a BIG THINK metacognition activity to ensure learners know how they have grown through the KBC experience
- Keep the Knowledge Building portal fresh and archive all older KBCs
- Track and analyze progress across grades and subject areas
- Be creative. A KBC has many uses
    - Single-class exploration
    - Cross-class inquiry
    - Cross-district, community, state, world inquiry
    - School projects/initiatives
    - Professional learning projects

How will you know it's working?

- KBCs keep building and students are taking more ownership of their learning
- Survey teachers and students for feedback
- Administration join in on learning in KBCs

- Parents are excited to see what and how their children learn
- The results of a collaborative learning experience are superior to those done in the isolated classroom
- The quality of the learning experiences keeps going up

Appendix A

Characteristic of Super Learning Experiences: Excerpt from *Knowledge Building in the Learning Commons* - Teacher Librarian - February Issue, 2011

Carol Koechlin, Michelle Luhtala, and David V. Loertscher

˜The learning experience happens in a physical/virtual environment conducive to active investigation under the direction of adult coaches.

˜Standards and learning outcomes are selected from state/provincial/national documents that provide minimums the learners are to surpass

˜The problem, project, or quest engages the learners; they are engaged because the task is relevant and meaningful.

˜Learners encounter a wide range of information from which they must develop deep understanding

˜The learners use quality information and media in their learning journey

˜Each learner develops personal expertise in the topic at hand and adds that expertise to the pool to create collaborative intelligence

˜Adult coaches facilitate learning collaboratively (classroom teacher, teacher librarian, teacher technologist, reading specialists, counsellors, outside experts, other specialists, parents, etc.)

˜Technology used supports the active investigation of the problem/project and actually contributes to the learning and learning how to learn.

˜Sound instructional designs are used to spur active inquiry, higher-level thinking, habits of mind, and creativity

˜Products include both individual and collaborative creations in written and multimedia formats

˜21st century skills are taught just in time to spur content knowledge

˜Sharing both individual and group work takes on many forms and a variety of events

˜Differentiation allows for multiple routes toward excellence

˜Almost without exception, every learner meets or exceeds expectations for the learning experience

˜A variety of formative and assessment measures chart progress of individuals and groups of learners.

˜After the unit is complete, the adult coaches and learners participate in a metacognitive big think and decide how they can do better during the next learning experience together.

Appendix B

THINK Models – Loertscher, Koechlin, and Zwaan

- **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: Designing the Big Think

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.

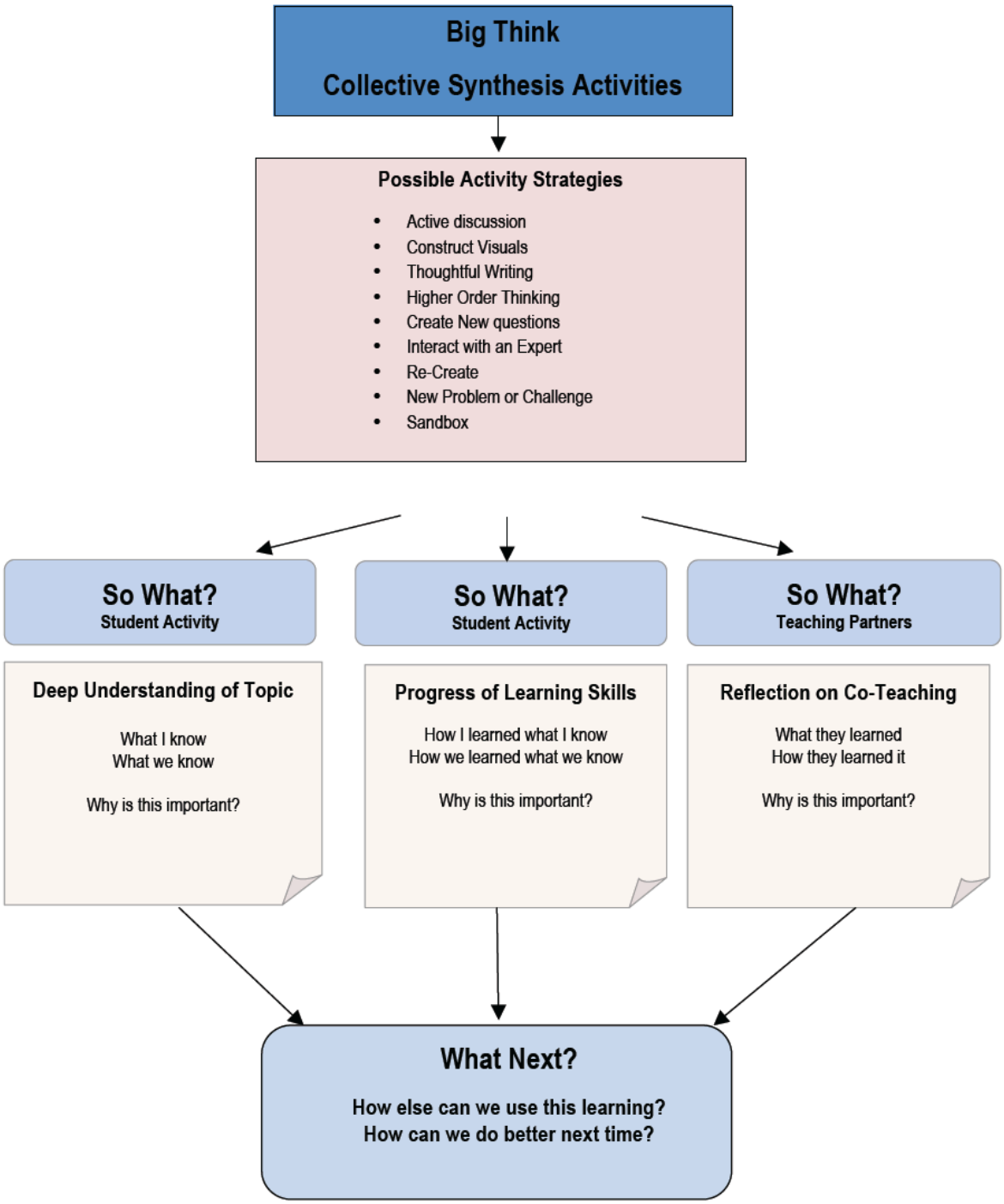
The big think consists of three activities:

- 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
So What?
Student Activity
So What?
Teaching Partners
Deep Understanding of Topic
What I know
What we know
Why is this important?
Progress of Learning Skills
How I learned what I know
How we learned what we know
Why is this important?
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:

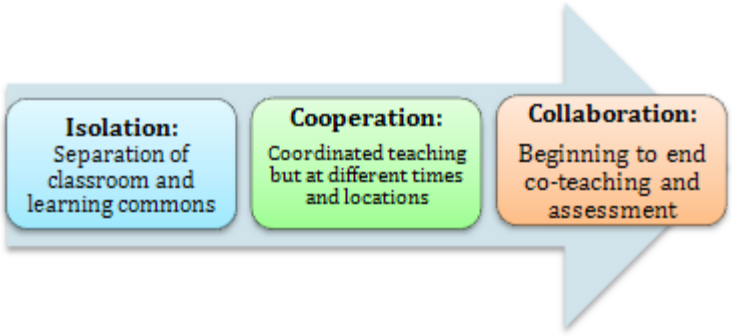
So What?

What Next?

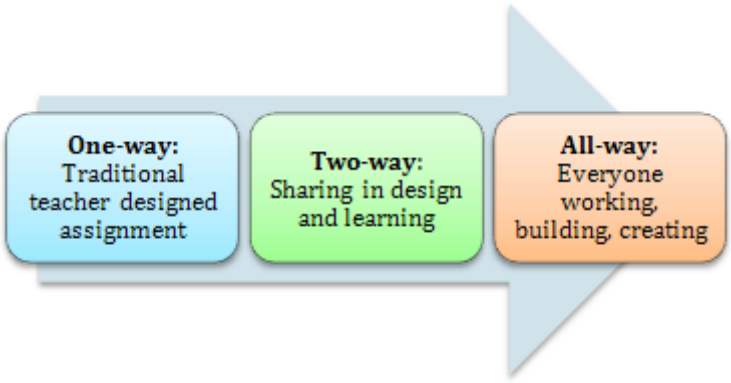
Appendix D: Planning a KBC Big Think

Reviewing our planned Knowledge Building Centre (KBC) learning experience, which of the following characteristics did we attend to? Would we do anything differently before we actually carry this out?

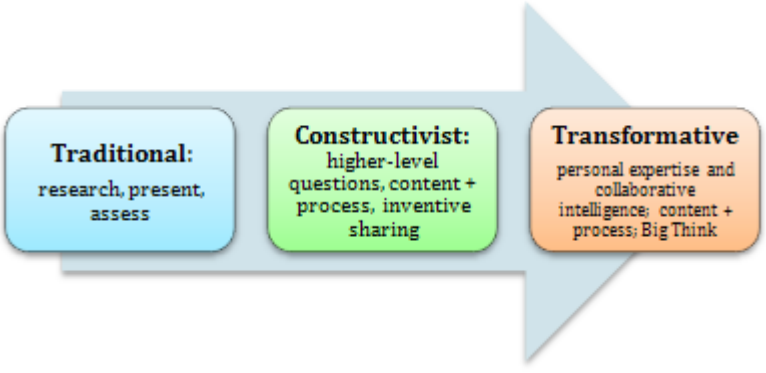
Status of collaborative action: Anything we'd like to change?



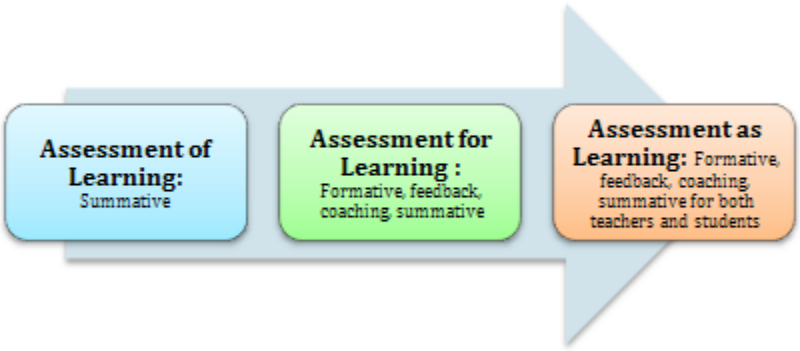
Status of the KBC collaborative environment:



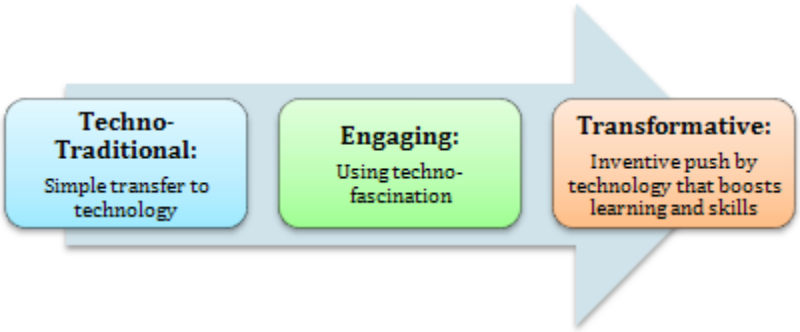
Status of instructional design used



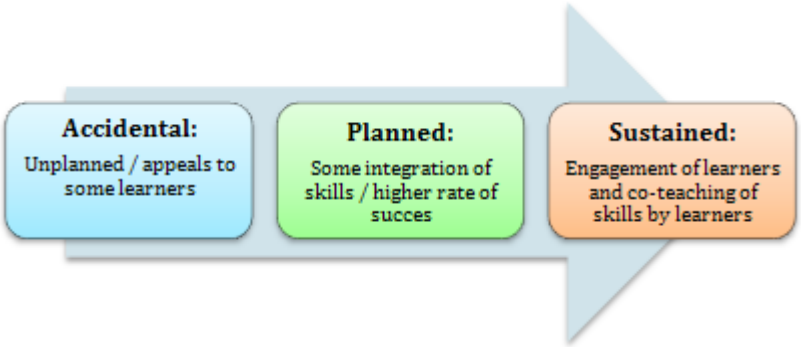
Status of assessment design used:



Status of technology boost to teaching and learning:



Incorporations of knowledge building worlds to differentiate:

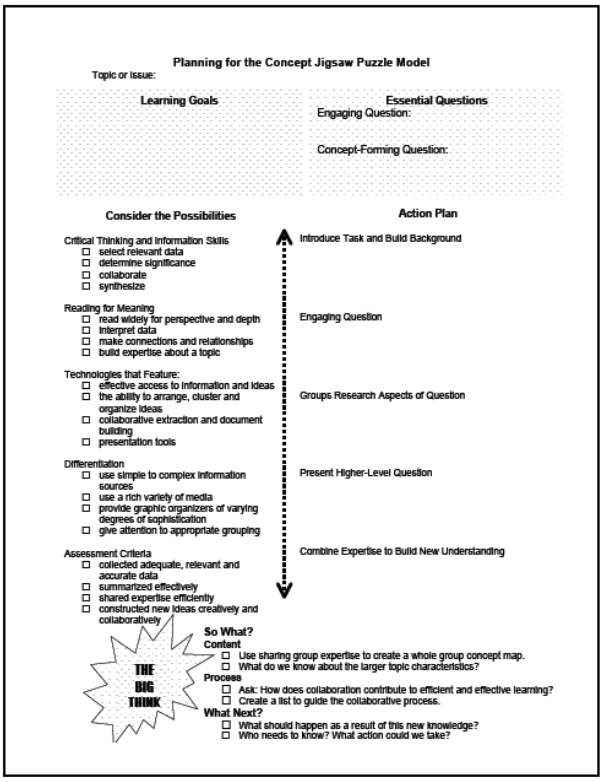


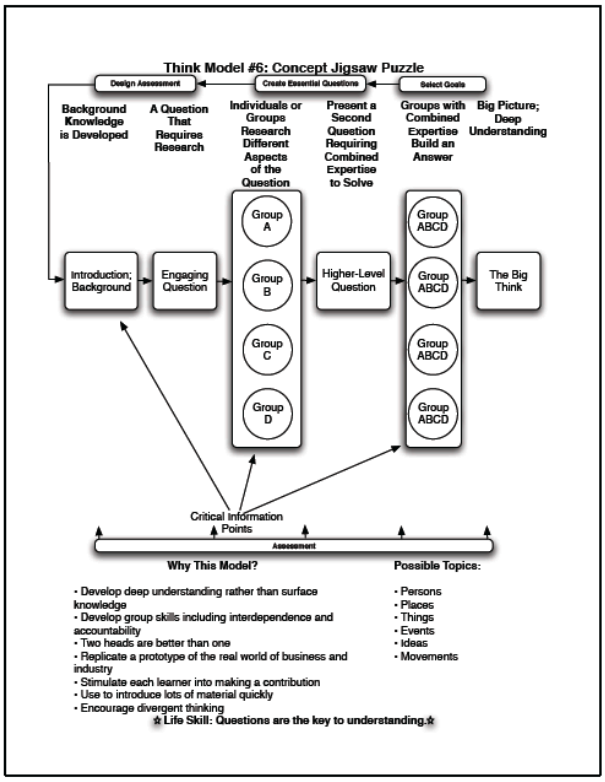
So What?

What's next?

Appendix E The Problems Possibilities Jig Saw Model

Sample Think Model Layout

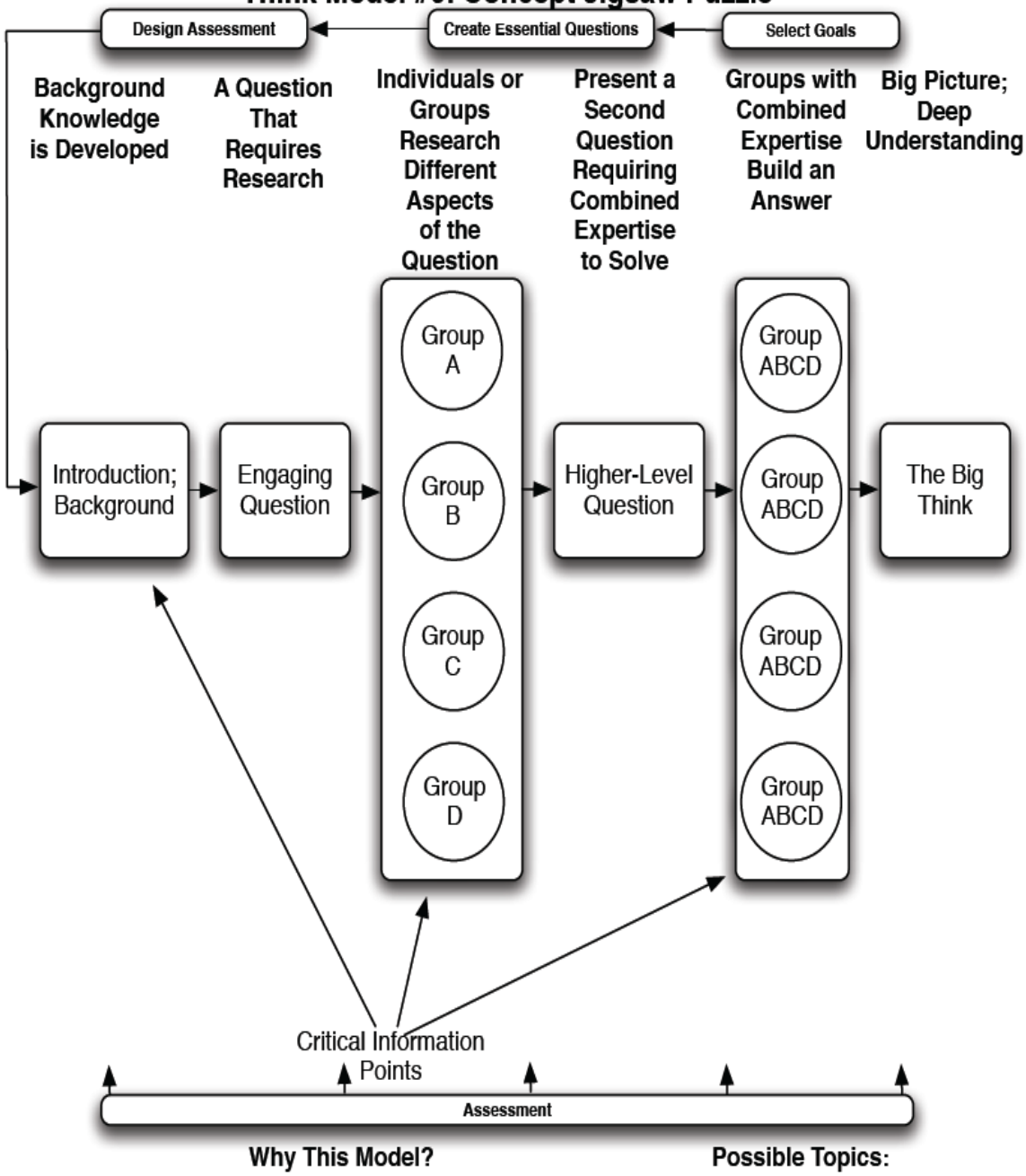




Handy Planning Page

Think Model

Think Model #6: Concept Jigsaw Puzzle



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:

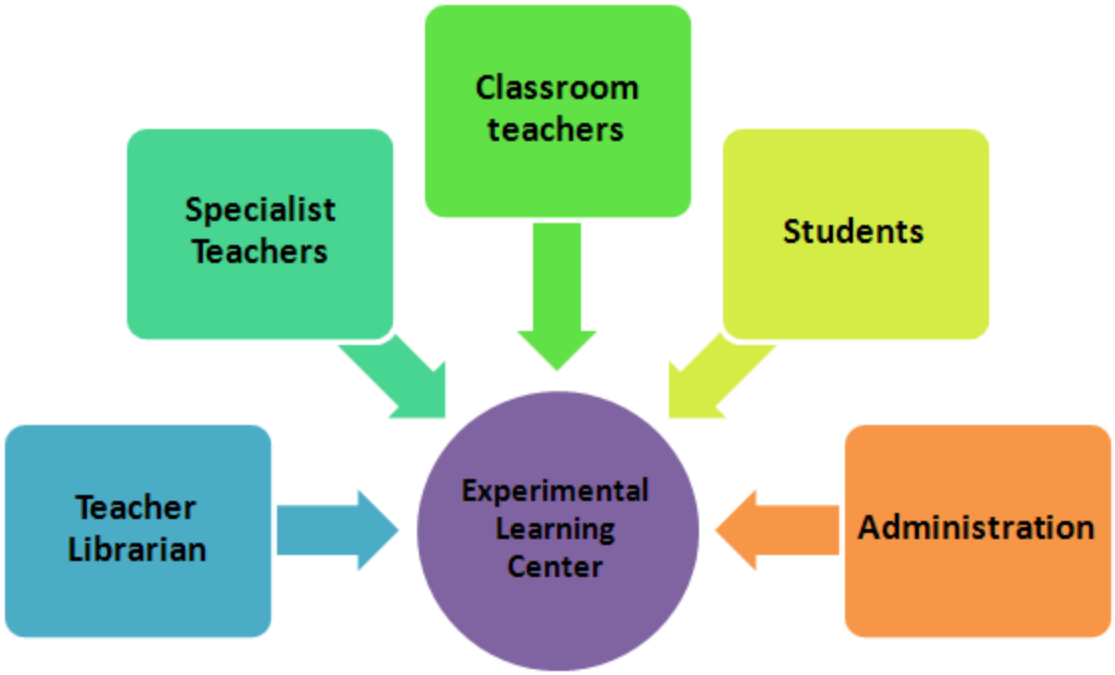
- Persons
- Places
- Things
- Events
- Ideas
- Movements

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

Chapter 10

Develop the Experimental Learning Center

The Experimental Learning Centre is a space reserved for all learners to grow, innovate, and create. Adults embark on professional activities to improve their teaching approaches and students utilize the space to test and experiment with technologies, play with ideas, and co-create before introducing their projects school wide. All groups could also combine their efforts to develop a collaborative route to school improvement.



The Adult Journey

Schools are always on a path of continuous improvement. School improvement plans are drawn up and professional development scheduled. Often these initiatives are scheduled by administration but not always. Several projects could be in play at any one time in various wings of the school and

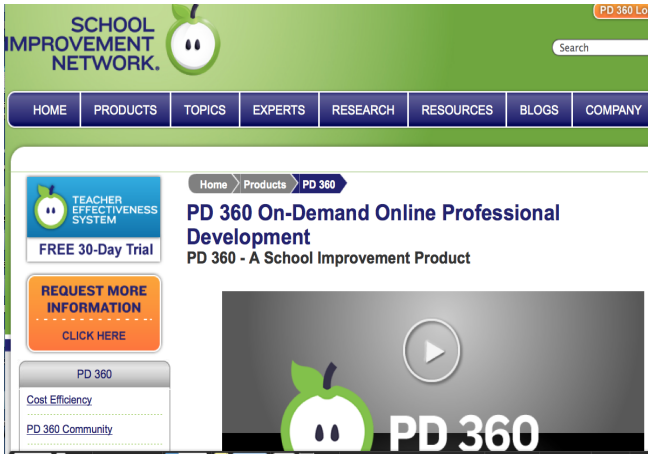
all led by different experts. How can administration keep informed about everyone's progress? We advocate that the solution is to enlist the tools, space, and resources of the Learning Commons to achieve not only best results but transparency. Within the Commons virtual hub, school improvement programs can be planned, initiated, analyzed, reviewed, and archived for best results. Rather than having isolated pockets of professional learning sprouting up all over the school, these initiatives are best streamed and monitored through the Virtual Experimental Learning Commons. Now we have one stop shopping for everyone! Teachers are always just a click away from their personal and collaborative learning spaces, and administration no longer has to roller skate all over the school trying to track down and observe progress. By centralizing the access place and making it a collaborative, both organization, calendaring, participation, and results are likely to grow.

Long Term Commitments

Curriculum Standards

All states, provinces, and national governments have long term standards and curriculum policies that are mandated and thus play a major role in school improvement. Major change, such as the US Common Core Standards, requires a sustained time commitment. Some school districts organize their own long-term professional learning while others contract with commercials organizations such as PD360. http://www.schoolimprovement.com/products/pd360/

No matter what the initiative, center the work in the Experimental Learning Center along with all other school improvement activities. To make access and work more efficient, each initiative can have separate pages linked from the ELC main page.



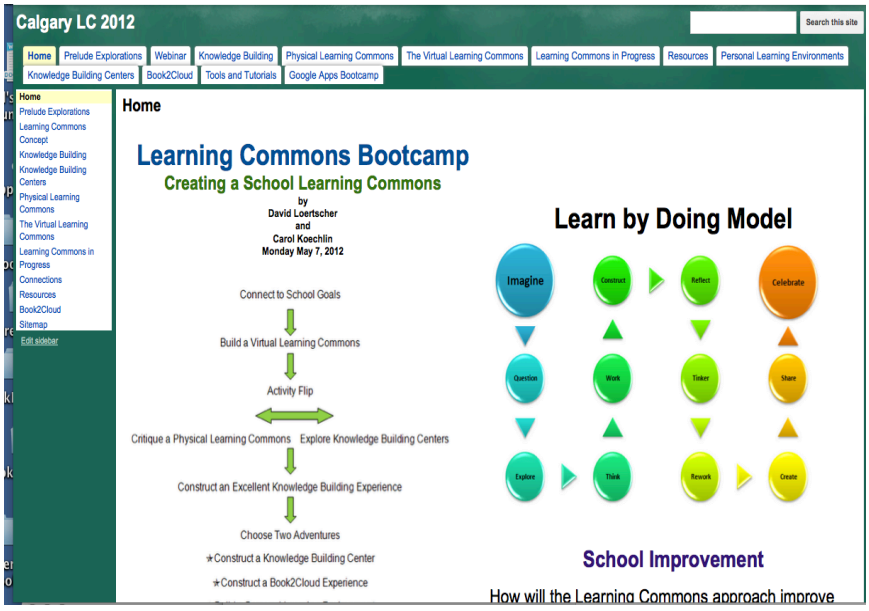
Personal Growth and Development

From conferences to webinars to certificates or higher degrees, opportunities for individual educational development abound. Center such opportunities in this portal and keep drawing the attention of the faculty to this place. Many opportunities such as Classroom 2.0 are free, and for a reasonable cost, college credit or professional growth credit can be obtained.

Shorter Term Commitments

Workshops

Workshops for faculty and even students are a popular strategy to increase awareness of issues, new developments, and school improvement initiatives. For example, the authors of this book conducted a day-long 'Bootcamp' for the Calgary Board of Education about the Learning Commons. Principals, learning leaders, teachers, and teacher librarians participated in pre-bootcamp explorations and a webinar leading up to a day of face to face experimentation designed to build skills and strategies to take back to Calgary schools. We built a Google site to archive all presentation materials and participant work so the site was readily available for linking to their school ELC for reference and further study.



Tests and Trials

Experimentation with learning strategies, social networking tools, assessment practices, and other school improvement initiatives reap rich rewards in the VLC. Currently there is a great deal of discussion in educational circles about the benefits and drawbacks of social networking tools. There is no shortage of books, articles, and use of social networking itself to discuss the issue. Articles such as Social Networking: Schools Debate the Merits of Technology in Classrooms, http://www.huffingtonpost.com/2011/03/27/social-networking-schools_n_840911.htmlan or at Tiny url http://tinyurl.com/8jpnq6q, can be linked to the ELC for short term topical study.

The best way for a school to make decisions about major issues like this is to set up a test or trial. For example, Roger Nevin, a teacher librarian in Ontario, Canada reported that after opening email and Google Apps to an entire school, only four cases of abuse were reported over the school year and those were handled as normal discipline problems. Such tests are perfect for the iTeam as new devices, applications, apps, and policies are tried before adoption.

Social Networking In Schools: Educators Debate The Merits Of Technology In Classrooms

First Posted: 03/27/11 11:30 PM ET |Updated: 05/27/11 06:12 AM ET

Professional Learning Communities

Learning Forward, formerly known as The National Staff Development Council, has presented seven principles to guide districts in the work they do to advance opportunities and learning for their educators. These standards introduce a new shift in teacher training that gives teachers an active role in their continuous professional learning journeys. See more at http://www.learningforward.org/standards/index.cfm or at Tiny url http://tinyurl.com/427cqy5 .

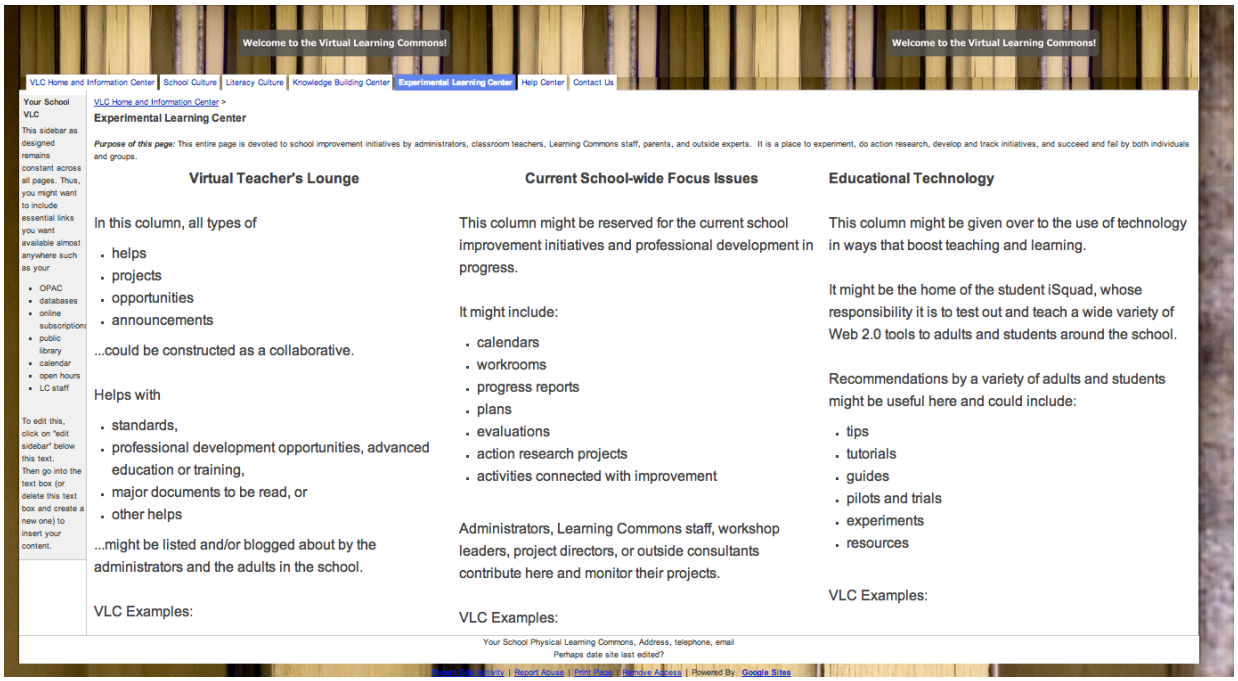
The Learning Commons provides a central non-threatening place in which to center the work of professional learning communities. It becomes the place for serious discussion and experimentation across the faculty so that a sense of excellence permeates the entire school. It is the place we can

share, test, succeed or fail together, pick up the pieces, and move forward without stigma. This is essential if any school is to make progress as a learning community. Again the ELC portal is an ideal vehicle to provide access anytime, anywhere, for busy teachers.

http://www.learningforward.org/standards/index.cfm

Opportunities for teachers are linked in the sidebar of this part of the site. The design of the page should be such that it draws attention to not only what is going on, but attracts traffic from the faculty. If administrators use this page both in their personal work as well as in faculty meetings where collaborative work is being done, the entire faculty should begin to understand what a collaborative learning space is, how it works, and its potential for things they do in the classroom.

If you examine the original template for the Experimental Learning Center, we have recommended a virtual teachers lounge, current school-wide focus issues, and a section on educational technology as pictured below. Remember that you have complete control over what you will include in this center so that it builds the type of collaborative space that works.



Action Research

Going on one step further from experimentation, more formal testing of ideas happens with a bit more scientific rigor. Here are some examples that belong in the Experimental Learning Center:

- The principal volunteers to the district administration to have five classes at her school try out Flipped teaching for a semester in order to get a clear picture of impact and feedback from both adults and learners.
- The superintendent asks every school in the district to test a new reading strategy in one class and the traditional strategy in a peer class. Findings will be used to make a decision on district-wide implementation of the new systems or retention of the old.
- A controversy in the school over project based learning versus direct teaching results in a local experiment in partnership with a nearby College of Education.
- Several teachers offer to test the concept of "badges" against regular use of rubrics and grades. They are trying to decide which, if any system, raises the level of student engagement and retention in learning experiences.

The Student Journey

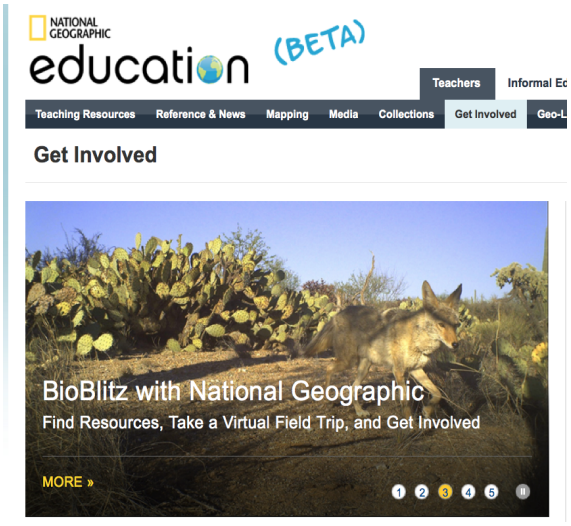
The Experimental Learning Center is not just for the adults; it is a place for students of all ages to try, text, create, and critique. Here are some examples that might illustrate the role students would play in the ELC.

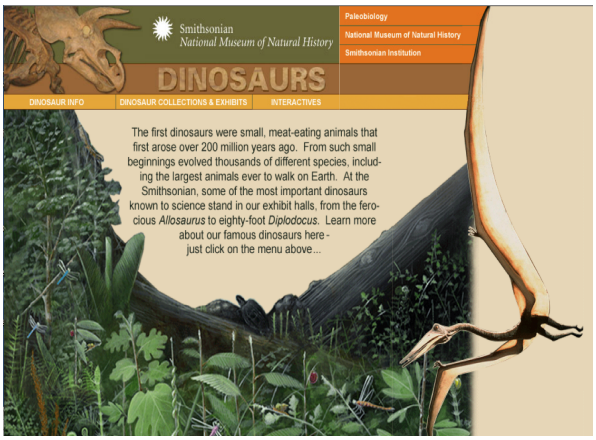
Topical Initiatives from Various Organizations

A number of professional organizations, museums, government agencies, and private organizations offer opportunities to schools for both formal and informal activities and projects in which students can participate. The Experimental Learning Center is a great place to test out these various initiatives to see if there is a fit with both in and after-school programs. These might include:

- **State young reader awards**
  http://www.ccira.org/w/w?cmd=goccba

- **National Geographic projects and initiatives**
  http://education.nationalgeographic.com/education/?ar_a

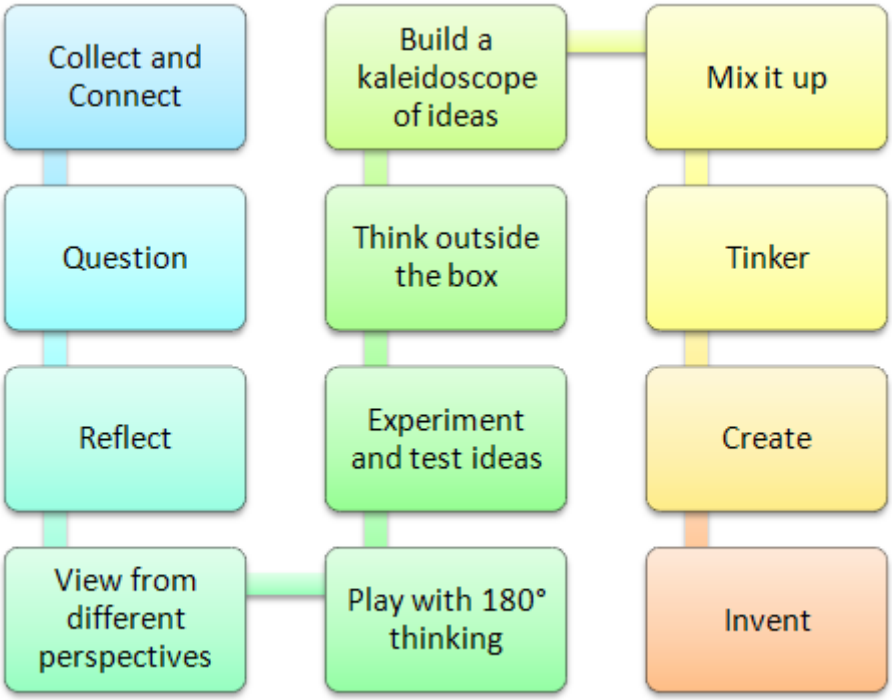


• **The Smithsonian Institution's activities and projects** http://smithsonianeducation.org/students/index.html	
• **Heritage Fairs** http://canadashistory.ca/Kids/YoungCitizens.asp	

Play and Creation

Opportunities abound for rich 'play to learn' experiences in both the physical and virtual Learning Commons. Everyone is encouraged to experiment with strategies and technologies, bounce ideas off of others, play with words and visuals, and innovate with problem solving, as well as other types of experiences. For example, the LC staff can set up a Sandbox space for individuals or groups of students to try out video production, and sound and music tools to create mash ups or their own original pieces.

Sandbox Thinking



(Loertscher, Koechlin, and Zwaan, 2009)

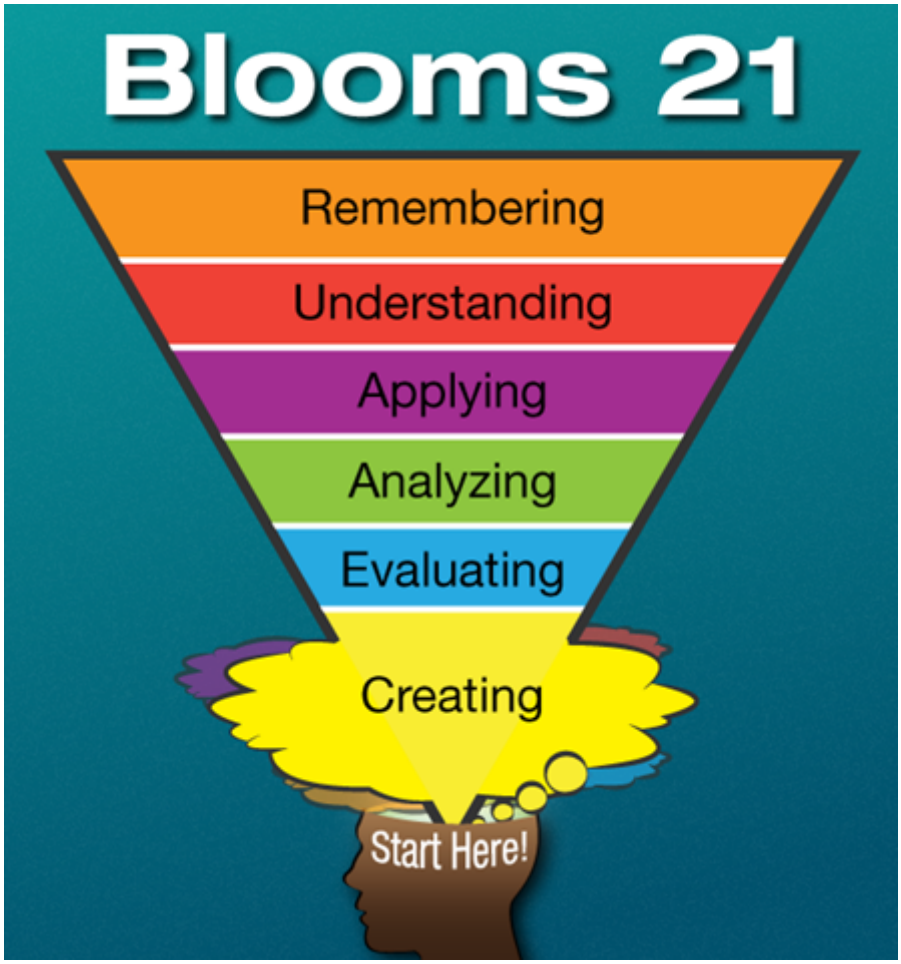
You never really know what's going to happen when you play.

"Play can be a doorway to a new self, one much more intune with the world. Because play is all about trying on new behaviors and thoughts, it frees us from established patterns". (Brown, 2009)

According to the New Media Literacies Project, designing and implementing a participatory learning environment fosters:

- *Heightened motivation and new forms of engagement through meaningful play and experimentation.*
- *Learning that feels relevant to students' identities and interests.*
- *Opportunities for creating and solving problems using a variety of media, tools and practices.*
- *Co-configured expertise where educators and students pool their skills and knowledge and share in the tasks of teaching and learning.*
- *An integrated learning system where connections between home, school, community and world are enabled and encouraged.* (New Media Literacies Project, 2012)

Start by Creating - The benefits of play can also be rationalized by the Flipped Blooms thinking introduced by Shelley Wright in Powerful Learning Practice. http://plpnetwork.com/2012/05/15/flipping-blooms-taxonomy/



ITeam Experimentation

Young people have a great deal to contribute to the quality of teaching and learning if consulted and listened to. We have witnessed iTeams of students with over 45 participants and waiting lists. These budding and engaged kids and teens not only help keep the Learning Commons operating, but do a great deal of experimental work with a wide variety of technologies: they operate genius bars, help teachers solve technology problems, and take on the spread of technology through their network of students throughout the school.

For example, the iTeam might subscribe as a group to Richard Byrne's Free Technology for Teachers Blog (www.**free**tech4**teachers**.com/) and notice the following announcement:

Web Search Strategies in Plain English

Last fall I wrote 10 Search Tools and Tactics Teachers and Students Need to Know. The first thing on that list was to teach students to stop Googling "what" and "why" questions. In other words, teach students to use better search terms. A good resource that can help students understand web search strategies is Common Craft's Web Search Strategies in Plain English.

The video can be viewed online. If you would like a copy to download or embed into your blog like I have done above you will need to have a Common Craft subscription.

Knowing that they have a school-wide responsibility to help everyone with information searches, the iTeam holds a luncheon workshop where they investigate the tools listed in the blog and, with the help of the teacher librarian, decide which tools and techniques to include in mini-workshops they conduct in classrooms or the Learning Commons whenever an assignment requires research. If they find the video tutorials lacking, the iTeam creates a set of tutorials for their own school, and then use their products in the Knowledge Building Center portal and in the Experimental Learning Center when called upon to teach the faculty a new skill.

The technology department of the school or district relies on this group to test out new networks, access connections, software, new devices, BYOD rules, and digital citizenship training. This type of opportunity, personal and group expertise development, and trust goes a long way to build budding entrepreneurs, prospects of careers, personal responsibility, and skills for creating a technology learning environment as opposed to a hacking mentality.

Combined Journeys

Experimentation

New technologies, new assessment strategies, different instructional designs, developing fresh approaches - and many other risky or unproven strategies requiring change are a part of the Experimental Learning Center. It becomes a place to test, try, succeed, and fail without fear of retribution.

Participants, whether adults or students, know that they are working under scrutiny but without fear of being ridiculed for trying. Just a few examples may open up a healthy conversation, leading to possibilities:

- Facing computerized academic testing of the entire student body, the iTeam tests networks and a variety to devices to see if the proposed plan would be workable.
- Several grade levels agree to test digital curation as a means of developing deep understanding of complex texts.
- A new technology is under consideration for every classroom in the school, but before making the investment, various teachers offer to try it out with a real learning experience.

- Teachers come home from a conference excited about the potential of game-based learning. The principal gives permission for several trial runs and then holds a focus group in front of the faculty with the participants.
- The School Board is willing to fund a major multi-year professional development plan but needs a test run. The Board asks for volunteers.
- A commercial company wishes to assess their system of ebooks on various student-owned devices as a beta test. They will want feedback from students and adults in a free trial period.
- The school is considering setting up a Fab Lab in the Learning Commons. A team of students and adult leaders visit one to investigate how it would contribute to hands on learning and real creation projects.
- The iTeam is involved every year in a Maker Faire at: http://blog.makezine.com/category/events-3/maker-faire-events/ as they create, demonstrate, and show their best creative selves.

Who Can Help?

In this portal, administrators will want to be at the center alongside the school leadership team who are guiding and directing the school improvement initiative as a whole. Specialist teachers such as Literacy coaches will need to work with LC staff to place their special initiatives in this special learning zone. Students on the iTeam might have their own separate page with a different set of adult advisors having access. Teacher librarians and teacher technologists can spearhead the development of this portal to see that it is working and reflective of school needs.

TIPS for Success

- create a calendar for booking ELC events and projects
- keep the front page current and invitational
- set up short term collaborative spaces for projects e.g.Twitter hashtag, wiki
- archive older events and projects
- provide differentiated access to various project pages
- hand over responsibility to project leaders

How will you know it's working?

- all professional learning begins to radiate from the ELC
- specialist teachers utilize the space to calendar and track new initiatives
- administration gathers evidence for reports
- this portal becomes 'home' for the ITeam
- classroom teachers use the portal to design their own learning plans
- students utilize the play zones to experiment and co-create

Chapter 11

Build School Culture as the Living School Yearbook

Who are we? What's happening? What is there to Celebrate? What opportunities are there to get involved? These are just a few of the questions that could be posed to the iTeam, the student government, the athletic coaches, the yearbook staff (if there is one), the club presidents, and to several focus groups. What shall we include? Who will be allowed to post? How will this get done in a timely fashion? How can we get organized? Let's start a list:

- Sports events
- Music and drama productions
- Winners of any type of award
- News of various organizations
- Projects of community interest
- Issues inviting comments
- Candid camera
- Individual student projects, hobbies, successes
- Involvement in local, state, or national events/projects
- School trips/field trips
- Speakers and other guests to the school
- Reading clubs and other groups
- Gaming events
- Graduation

As the list expands, a plan emerges that will be reviewed regularly to see if the site is being visited, commented on, participated in, and is building a sense of a school community.
A living school yearbook is more likely to draw traffic than any other part of the Virtual Learning Commons. And, it might be the most feared by the adults if very many students have editing powers. We take the position that the entire school is for the students, so why not teach them responsibility at the same time we are celebrating their lives and accomplishments.

Emulate Museums - An environment rich in evocative objects - whether it's a classroom or a museum - triggers active learning by letting students pick what to engage with.
(*The Third Teacher: 79 Ways You Can Use Design to Transform Teaching & Learning*, 2010)

Tools to Use

This part of the VLC offers a great opportunity for many young people to exhibit their creative and production skills. They can create pictures, video, audio, writing products, speaking projects, and journalistic projects, using the latest tech devices and software. Many can exhibit their tech prowess, their ability to produce a creative and imaginary product, learn how to attach and feature these in a shared space, and practice digital citizenship.

Students can learn about the Creative Commons and the issues of copyright. They can learn about the rules of keeping those featured in this portal safe. They can learn how to create their own portfolios as an extension of the school example.

It is a place to have fun, to experiment with technology, to brag, and to spotlight diversity and every level of ability. And, it can be a place to highlight whole school initiatives and service projects.

Students can create word clouds using such tools as wordle http://www.wordle.net/ to jazz up their contributions to the VLC School Culture portal.

Drawing Traffic

On this portal, everyone wants to see themselves, and have their opinions and contributions seen and heard. The Living School Yearbook needs to comprehensively span the gamut of accomplishments and creations from sports to fine arts, from school teams to individual awards. Regularly update this portal to keep it fresh and keep your school community coming back to see what's happening around the school. Archive older posts so that everyone can go back and review events. The other strategy that will ensure success is to invite communication either through a comments tool or an actual blog. Encourage both adults and students to utilize Twitter feeds and other social media tools to ensure that stories from the Cultural Portal are shared and successes celebrated widely.

We recommend that an iTech member be responsible for copying a different event from the school culture page to the front information portal every day. This will serve as a teaser to draw kids and teachers into the site as a whole.

Safety Issues

There is a great deal of variation of opinions and practices with regard to showing the faces of students or faculty on a public website. The first factor is whether the VLC will be open to the general public, or controlled and limited to only the school population. There will also be a great deal of variation in policies about whether student faces can be posted even on internal websites. We have heard of meetings between parents and teacher librarians/technology directors where an open discussion is being held. Some parents opt for eliminating identifiable pictures of their children. However, when they see that their own children are being spotlighted for a prize or honor, they often opt back in. We have also encountered teacher librarians who are quite inventive about how students are photographed. Perhaps a group of students are shown from the back looking up at a teacher librarian reading them a story. It seems that there is no one size fits all recommendation at the moment. We do know, however, that this one section of the VLC will get the traffic and the traffic will keep coming if the portal is done cleverly and inclusively across school activities and culture.

Who Can Help?

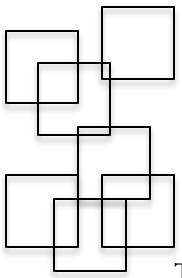
Like the iTeam, the staff associated with this portal is a kind of club. Both adults and students need to apply and learn the ropes of editorship, what is appropriate and what is not, and how to monitor parts of the portal for appropriateness. Who will be the main editors? Who can serve as the tech advisory team to solve problems and assist with posting? If there is a school yearbook, perhaps that staff takes responsibility for this whole portal where content will accumulate throughout the year and end up in a printed or virtual yearbook or both.

TIPS for Success

- Ensure inclusivity. Every event or accomplishment is important.
- Brevity in reports and visuals is desired.
- The school code of ethics and digital citizenship must guide postings.

How will you know it's working?

- Frequency of posts
- School wide representation
- Volunteers line up to help
- Students feel ownership
- Parents visit and comment



Chapter 12
Preparing Students and Teachers to Work, Learn, and Play in the VLC

The sheer volume of information available today renders it impossible for everyone to know all there is to know on specific topics of interest. It is in fact becoming increasingly difficult at times to find reliable, relevant data. This is a problem caused by the Internet and the seemingly endless number of tools that are available to store and share data. Although there is a promise of 'super' organization and distribution of information in projected Web 3.0 revelations, we need to right now empower learners, and the adults who coach them, to take control of their learning. We can do this by helping them shape their personalized environments. Every learner, whether child, teen, or adult, needs a virtual space of their own which is dedicated to helping them access, manage, and understand information and to helping them contribute to their knowledge building environment. One might term this the new and larger world of information literacy.

In the Learning Commons, a Personal Learning Environment (PLE) is critical to building capacity for learning to learn. Both students and educators are coached and supported in constructing, managing, and utilizing their PLE to its fullest potential. The Learning Commons takes responsibility for building and maintaining flexible physical and virtual environments conducive to the best learning for all types of clients and their needs.

However, a PLE is different. It is a specific world designed by the user to best meet their individualized information, learning, social, and recreational needs. Individuals and groups can actually build on the rich networks, resources, and tools already established in the Learning Commons to extend their own learning universe.

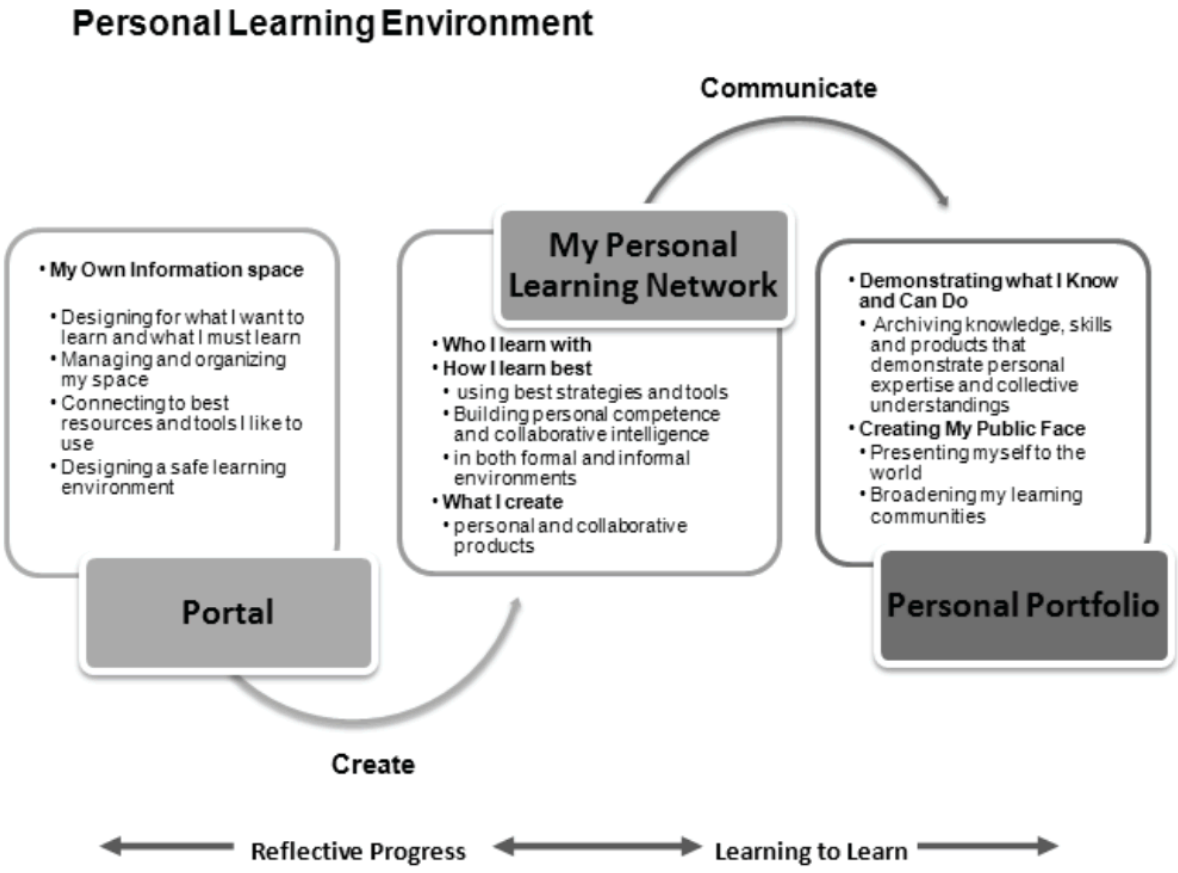
Thus PLEs are driven by a need to make sense of the vast world of information and ideas, and to take advantage of available technologies and tools. In addition, learners can tap into the expertise of others in order to learn, to build knowledge, to create, to collaborate, and to share within their specified community and the broader learning environment. Let's break down the concept.

Personal – It's all about the interests and the needs of each learner, whether child, teen, or adult. Tools,resources, and contacts all need to be selected by the learner or the PLE will have no relevance.

Learning – It's all about learning, and that learning should be self-directed. The learner needs to be in control, test ideas, collaborate, create, make mistakes and fix them, and keep on learning. This approach holds true for both formal and informal learning.

Environment - It's all about creating a safe but empowering learning space. The role of the Learning Commons is to ensure that everyone has access to the best tools, resources, skills, and supports to work and play and learn. It is about creating a culture of learning by fostering habits of mind conducive to learning how to learn. These habits of mind include curiosity, a desire to make sense of the world, empathy for others, value of self, the need to take charge, and a sense of community.

To further define the personal learning environment, study the following model that divides the PLE into three distinct stages of development. Each phase empowers the learner to manage specific aspects of their learning potential. Each phase is a critical component of ensuring success.



When put together, the result is powerful. Strengthened by continuous reflection and goal setting, the PLE sets up learning for life.The first question for the teacher librarian is to examine one's own personal learning environment. How do you as the information expert in the school manage your own world? Perhaps we begin with ourselves and then enlist the assistance of young learners as we further our own expertise. Let's examine more closely each of the three elements of the PLE:

Begin by Building the Portal

- Designing for what I want to learn and what I must learn
- Managing and organizing my space
- Connecting to the best resources and tools I like to use every day
- Designing a safe learning environment

Portal construction tools continue to appear and are getting more sophisticated over time. Perhaps the easiest one to begin with for kids, teens, and even adults is a program called Symbaloo, a free tool on the Web. It takes very little time to understand what is happening when using such tools. Then as awareness of more complex software emerges, the idea of coming into command of one's own information world is set. We are embracing what we wish to spend our time learning, and rejecting everything else. And, if we want to go out into the larger world, we can go there as we please. We teach and learn how to create our own 'filters' realizing that no wall is foolproof, but intruders are blocked for the most part and our skill in information management grows to meet our changing needs and interests. For schooling, we will want links to our teachers, the school Learning Commons, and anything else connected to our academic world. For other interests, we will invite selected information and selected people into our space.

The Portal Leads to the Construction of the Personal Learning Network

- Who I learn with
- How I learn best
    - Using best strategies and additional tools
    - Building personal competence and collaborative intelligence in both formal and informal environments
- What I create
    - Personal and collaborative products

In the personal learning network or PLN, we are doing our work, connecting, producing, and creating both as an individual and in collaborative groups. The PLN is the place we are developing 21st Century Skills. We are listening, connecting to experts, hanging out our work for inspection and feedback, growing, and evolving. It is the place for formal schooling, but as importantly, it goes far beyond the classroom as we purposefully explore interests, passions, abilities, or just try to keep up in a field in which we are already an 'expert'.

Will Richardson and Rob Mancabelli, in their book *Personal Learning Networks,* suggest a few of the many tools that help us connect and share. These include Diigo, Google Reader, and Blogger.

These tools help keep us organized and provide a chance to express ourselves to the world. To this list, we would suggest any of the collaborative Google tools such as Google Documents, Google Draw, Google Presentations, and other tools such as SpicyNodes that help us mind map what we know personally or collaboratively.

Finally, Create the Private and Public Portfolio

- Demonstrating what I know and can do
    - Archiving knowledge, skills, and products that demonstrate my personal expertise and collaborative intelligence
- Creating my public face
    - Presenting myself to the world
    - Broadening my learning communities

Whether in formal or informal learning, sharing our work to develop a bank of our own personal and collaborative expertise is an essential part of the current connected world. For our bank of products, we select those that we want to be made public. We hang out our personal shingle. We come into command of our public face, knowing that prospective employers or opportunities come to those who get noticed. Tools such as Google Sites, YouTube, blogs, wikis, and the Creative Commons are simple tools to help us push our best feet forward. We become digital curators (collectors and organizers), who exhibit our work to the public.

The advantage for both young people and adults, is that the tools for construction are ubiquitous and can be stored in the cloud so that our PLE is available to us wherever, whenever, and on whatever device we choose to access it. It can be constructed to follow our progress and sophistication over the years, or, it can be broken down into useful segments. For learners who change schools often, the cloud-based PLE transfers along with us and informs, as we choose, our new adult learning coaches.

Empowering the Learner

A PLE enables learners to build on their own strengths and experiences. Every student comes to school with established knowledge building worlds. Regardless of demographics, economics, or ability, everyone has skills, ideas, and dreams built outside of school. The influence of these personal worlds is very individual, and consequently the diagram above will look very different for every learner. Helping students transfer expertise from their worlds of play, home life, culture, and personal interest to the academic world is that much easier in a networked environment. When learners realize that their personal expertise in social networking, computer skills, knowledge of music or of gaming have relevance to their academic world, then educators have an opportunity to broaden the influence they have in the academic sphere.

Teacher librarians help students build personal learning environments that enable them to organize and manage both their personal worlds and their academic worlds Within the portal and networked spaces of a PLE, students are encouraged to gather and organize links to resources, tools, friends, and experts that will help them expand all their interests both inside and outside of school. It is hoped that learners will discover that often there will be opportunity for connectivity between personal interests and their formal school life. Within their Personal Portfolio students will store and organize their photos, stories, projects, and works in progress. They will also decide how, when, and where to responsibly share with others their success, their ideas, and their creations so that they maintain a healthy constructive public profile. The thoughtful intentional design and construction of a PLE requires planning and know how, but inventiveness and creativity will keep the PLE fresh and exciting.

We often speak of creativity as a vital component of learning, but somehow, few students end up thinking they actually possess this trait. Teacher librarians and classroom teachers can team together to teach the fundamentals of this quality. See Michael Michalco's article, *Twelve Things You Were Not Taught in School About Creative Thinking*, available at http://tinyurl.com/bpfp4a7 .

Digital Citizenship

In a recent interview with middle school iTeam members in Syracuse, New York, one of the authors asked students about the distrust that adults have for young people when they are on networks. They responded that yes, during school, they did assist their fellow students in learning how to be safe on the networks. However, when questioned: "What happens when all of you get home on your own networks? What do you do to stay safe?" They responded, "It is all a matter of self control." These young people understand that the building of personal control is the central element of online interaction. Where did they get this idea? Who helped them realize this? The impression was that they had developed this idea as individuals.

There are many short curriculums available to teach digital citizenship to young people. These are often taught in very restrictive and locked environments that young people learn to ignore or work around during school hours. We question the impact on behavior of such tightly controlled networks. So many young people now have their own devices that can bypass school networks at any time. Assemble a group of young people who have various forms of access along with a group of teachers, teacher librarians, and teacher technologists in order to formulate a plan that is realistic and effective for the students. Just saying "No" is ineffective at school and ignores the realities of individual responsibility.

Check out the following articles:

- *New Site Offers a Whole New Approach to Online Safety* at: http://tinyurl.com/cqjal63

- *12 Things Students Should Never Do on Social Media* at: http://tinyurl.com/9c74hnt
- A piece of advice when using BYOD (bring your own device), *How to Launch a Successful BYOD Program* at: http://tinyurl.com/9g8rwre
- American Association of School Librarians, *AASL White Paper on Educational Technology in Schools* at: http://www.ala.org/aasl/aaslissues/positionstatements/tech-white-paper

Indicators of Learner Success

How do teacher librarians and other adult coaches determine if the PLE is making a difference and preparing students for college and careers? As well as asking how effective our own PLEs are in helping us manage our own learning environment, we can put out a few indicators of success for those we teach.

We need to remember that Personal Learning Environments are not just a good idea for learners and their adult coaches. They should also have an outcome that pushes everyone toward mature habits in the information and technology world we currently inhabit. The chart earlier in this chapter provides some assessment points for what we might really value. And who is the judge of the traits listed in the Personal Learning Environment chart? The major judge is you, the creator of the PLE. Is your PLE bringing your into command of your own information world? Do you have a PLN that connects you to information sources that are stretching your mind? Have you assembled the tools that help you learn both as an individual and as part of a group? In addition, are you building a true picture of what you know, what you understand, what you create, and what you can exhibit? A second judge, or advocate, or mentor is the teacher librarian as the principal information coach in the school. While working with individual students, the teacher librarian begins to notice the blending of social networking skills over into academic skills. They see children and teens openly sharing expertise with each other and with the adults in the building. They see sophistication in information and technology tools as learning problems and projects are presented. They watch both personal expertise and collaborative intelligence arise and grow as the school year progresses. Most importantly, they develop the program of the Learning Commons in such a way that the PLE becomes foundational.

Systems and Networks that Support Personal Learning Environments

In the early years of high technology, many school districts made the assumption that the district would have to purchase the computers, the networks, the learning management systems, and would have to control everything from a central location in order to 'protect' the children and teens. Those expensive systems are now in decline, and more open and affordable solutions are emerging. In this YouTube video, a young sprout educates a traditional teacher about this new world of open personal learning networks: http://www.youtube.com/watch?v=a9zSd5Gs6Mw .

Instead of locking systems down, many school districts and individual schools now are joining Google Apps for Education, a free and safe environment that works in the cloud and on many personal devices. Google Apps for Education has over 50 different tools that can be used for creating knowledge building centers, personal learning environments, enclosed e-mail systems, and for the building of portals and portfolios. These systems can be used 24/7 and can be exported to follow the various learners and teachers if they move. In order to meet the challenges of state and federal requirements of online safety, the teaching of digital citizenship is coupled with the use of these more open and cost effective systems. It just takes a technology director who is willing to experiment with, and willing to participate in, the creation of tech systems that actually boost learning rather than simply continuing with a locked down system that prevents many types of learning. Many districts are opening up networks to staff and students so that they can use their own personal mobile devices at school. BYOD (Bring Your Own Device) is popular for professional meetings and conferences.

All learners would benefit from the immediacy of having the world in their pocket whenever they need it. If that learner now is empowered by a well organized effective PLE, then the notion of 'anytime, anywhere learning' is realized. However school networks have to be open enough to function this way. Stephen Abram, author of the *Stephen's Lighthouse* blog, comments on this topic in his blog post, *Preparation for Living in a Public World,* at: http://stephenslighthouse.com/2011/09/10/preparation-for-living-in-a-public-world/ or at Tiny url: http://tinyurl.com/3b4q6pc

Bright Ideas to Build On

- Check out the PLN journey of one perpetual beta principal who understands that effort reaps rewards: http://lynhilt.com/effort-in-reward-out/
- See this example of a group PLN in action: http://edupln.ning.com/
- Experiment with creating a visual resume: http://signup.vizualize.me/74xzi
- See how professional learning environments are changing: http://jeffhurtblog.com/2011/08/25/ten-learning-shifts-forconferences-events-associtions/ or Tiny url: http://tinyurl.com/8dkktbw

(A version of this chapter, written by David V. Loertscher and Carol Koechlin, was originally published as the article, "Personal Learning Environments in the Learning Commons", in *Teacher Librarian 39:2* (December 2011). It has been rewritten and updated for this book).

Chapter 13

District and State/Provincial VLCs

by Anita Brooks Kirkland

One of the basic premises of having a Virtual Learning Commons is the capacity it gives to personalize knowledge and facilitate collaboration at the school level. It would therefore seem counterintuitive to suggest that a district or state/provincial level VLC would be necessary or even relevant.

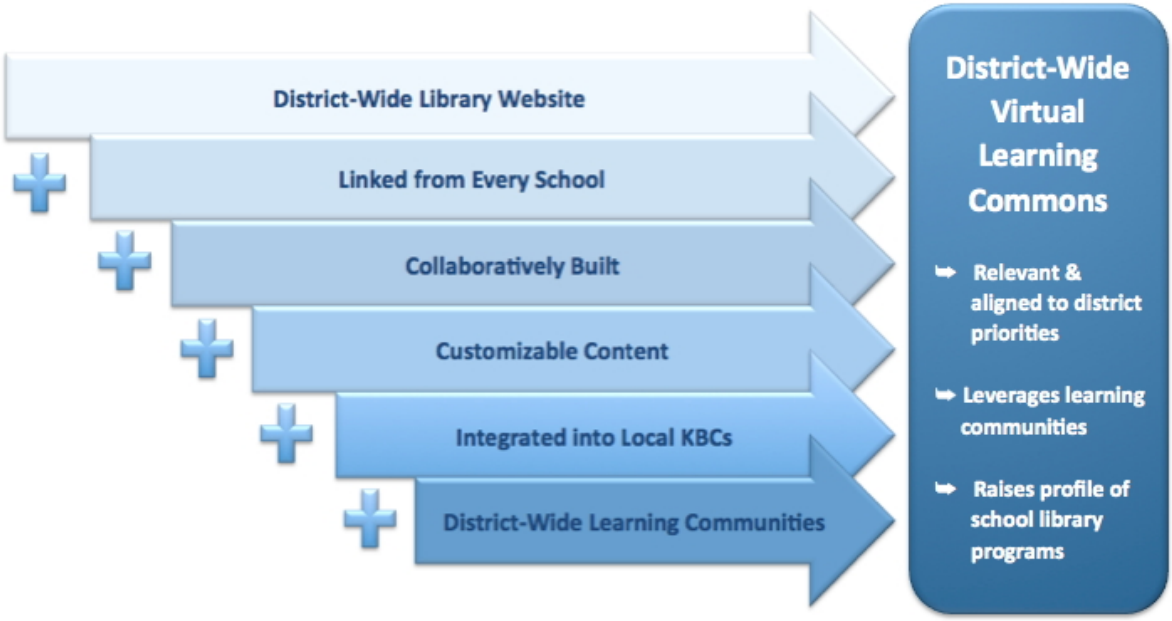
Nothing could be further from the truth. A district or state/provincial initiative can be a catalyst for providing equitable and ubiquitous access to the possibilities of resource-based learning. It can move individual school programs forward in ways that might not otherwise be possible. A district VLC that is collaboratively built and adaptable to meet differentiated needs can inspire and support innovation and model new ways to learn and collaborate across the system.

A District VLC Makes the Library Program Visible, Relevant, and Accessible

Having a district VLC can mean that the library and the Learning Commons is visible at all schools in the district. There is no question that in the new context of learning the virtual presence of the school library is critical. Yet many school libraries remain invisible on the web. In an age when our catalogues are online and we can provide access to sophisticated online databases and eBook collections, it seems incomprehensible that so many school libraries lack even the most basic element of a library website let alone a Virtual Learning Commons.

At the system level, a collaborative of all the units together can build not only the structure of the building VLCs, but can assemble system-level resources that can be shared across buildings. Such an approach builds equity and a constant stream of creative idea sharing across the system. Some resources from the system can show up in every building-level VLC; others can be in the experimental stage at the system level and refined before being implemented locally.

Creating a central Commons that is not merely linked from, but can actually be integrated into a school's VLC, increases the the local usefulness quite dramatically. The school's teacher librarian can draw on content that aligns with system goals and priorities that has been developed by the community of teacher librarians in the system. Rather than recreating the wheel, the individual school teacher librarian can focus on making meaningful links to the relevant content available from the central system. The visual below illustrates just a few of the possibilities.



Perhaps a preliminary list of ideas might get the reader started in addition to those above: Add to this list as you read and we will elaborate later in this chapter.

- District or state/provincial initiatives that can be adopted locally
- Expensive databases, multimedia resources, web tools that are purchased once for use by all schools in the district
- Equipment purchase opportunities at discounts
- Professional development opportunities
- Experimental testing of new ideas, programs, strategies, and software that involve both students and teachers.
- Online courses available to students across the organization
- Construction of recommended free e-resources that can be pulled down into local collections
- 'Ask an Expert' reference services involving system-wide experts
- Notification services of opportunities both for adults and for children and teens
- Collaborative across the system learning experiences such as state/provincial local history; problem/project based learning challenges, cross-system problem solving or challenges
- 'Find an expert' assistance
- Opportunities for cultural events across the system such as art exhibits (both digital and in a physical location), and invitations to write/report, create ,and be recognized

Mitigating Constraints

The reality is that there are many constraints that have prevented school libraries from having even a basic web presence. Inadequate staffing, isolation as the only teacher-librarian in a school, lack of technical knowledge, and the challenges of keeping up with professional learning within all of these constraints prevent many teacher librarians from venturing online.

Central leadership at the district or state/provincial level can play a critical role in rectifying this situation, making it much easier for teacher librarians and other instructional staff to leverage the capacity of the Virtual Learning Commons.

Constraints Preventing School-Level Library Professionals from Creating and Building Effective Virtual Learning Commons Websites	**How Central Leadership in Building a System-Wide Virtual Learning Commons Can Mitigate Constraints**
• **Staffing:** Inadequate teaching time assigned to Learning Commons • **Isolation:** Only one teacher librarian at the school. • **Capacity:** Varying levels of comfort with technology. • **School & system policies and procedures:** Systems & networks, supported applications, privacy concerns. • **Professional Learning:** Challenges of building personal knowledge about new contexts for learning.	• Provide release time for a team of teacher librarians to collaboratively build content. • Build system-wide professional learning communities for continuous content development and sharing of strategies. • Provide technical leadership, support and training. • Help create online spaces with supported applications, within district guidelines and following required procedures. • Lead and facilitate multi-faceted learning and sharing opportunities. Build a strong professional learning community.

By building a central VLC together, teacher librarians gain personal experience in the power of collaboration. What they build together will almost certainly be far better than what any individual can build on their own. When that collaboratively built content is easy to integrate and to customize, each member of the now more cohesive professional learning community is better prepared to customize the system VLC to their own school's context and needs.

Why System-Level Leaders Should Care About Building a System VLC

A district-wide Virtual Learning Commons has many powerful strategic advantages for advancing the curriculum of the entire school and the place of the Learning Commons in that academic and learning environment. This is in addition to any efficiencies in the school's Learning Commons program itself. Here are a few suggested priorities for such a district VLC:

- **Providing equitable and ubiquitous access to all library resources:** Particularly as school districts and states or provinces enter into large-scale licensing of online databases, digital textbooks, video, or other resources, it is in the system's best interest to provide easy and visible access for all students and teachers. If we want to help people realize the power of resource-based learning, then providing state of the art access to said resources should be our highest priority.

- **Creating equitable access to learning opportunities for students, teachers, teacher librarians, and administrators:** Collaboratively developing and then sharing learning supports across the curriculum reduces duplication and shares the wealth of knowledge across the system.

- **Developing a consistent and aligned approach:** A central Learning Commons helps develop consistency but also creativity in instructional approach. It provides opportunities to clearly align the Learning Commons program with system goals and priorities while giving individual schools the latitude they need for their individual programs.

- **Leveraging professional knowledge across schools:** Collaborative groups of teachers, teacher librarians, technology specialists, other specialists, and administrators are greater than the sum of the parts. Including all these groups in content development means that everyone learns from each other, and the final product is enriched by the collaboration.

- **Creating and sustaining Professional Learning Communities:** Working together on a sustained project that has clear benefits for all strengthens the community of professional learners across schools.

- **Helping schools achieve what they might not be able to do on their own:** Collaborating across the system, and being thoughtful about how district-wide content can be integrated into school VLCs and adapted to meet differentiated needs, empowers teacher librarians and may help strengthen their own efforts at developing learning communities at their schools.

- **Creating opportunities to develop learning communities across schools:** Professional collaboration across schools creates clear opportunities for developing system-wide student collaborations within a school, across schools, across districts, and across the world.

- **Demonstrating vision and leadership in supporting new ways to learn:** A rich district-wide Virtual Learning Commons can be the catalyst for transforming practice across schools. It can be a large scale Experimental Learning Center that models new ways to learn for the entire system.

Examples of System-Level Virtual Learning Commons Projects

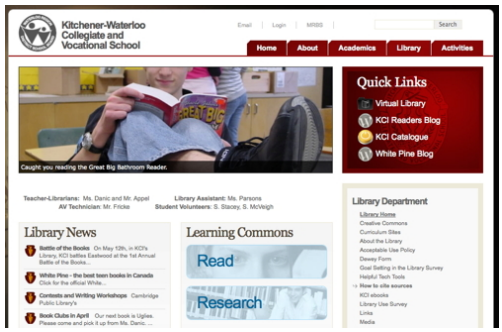
Toronto District School Board Virtual Library

The Toronto District School Board is Canada's largest school district, with approximately 600 schools in the city of Toronto, Ontario. The board's Library and Learning Resources department were early pioneers in providing system-wide, ubiquitous online access to the school library. In its earliest incarnation, the website provided a simple point of access to library catalogues and online subscription resources. A link to the website was included on every school's website. It has since evolved into a rich resource, with a research toolkit and subject-specific pathfinder pages. The TDSB Virtual Library provides a great 'one-stop shopping' point of access to information and tools relevant to the research process. Many of the board's teacher librarians have also built school library websites that integrate the TDSB Virtual Library. For schools with no individual library website, the Virtual Library ensures that the library is visible and useful, and that all students have access. The Virtual Library initiative has been a key catalyst in promoting the library program across this very large school district. It has also provided a model for many other school districts in the province to develop similar websites.
TDSB Virtual Library - Secondary: http://www.tdsb.on.ca/libraries/cat.asp?schoolNo=9
TDSB Virtual Library - Elementary: http://www.tdsb.on.ca/libraries/cat.asp?schoolNo=10

Waterloo Region District School Board Library Learning Commons

The Waterloo Region District School Board is located in southwestern Ontario, Canada, and has 116 schools. The WRDSB Library Learning Commons, inspired by the TDSB project, has been the single most important factor in moving the relevance of the library program forward in the past several years. Content development has been a large scale, ongoing collaboration involving most of the teacher-librarians in the board and lead by the consultant for school libraries in the district's Information Technology Services department. The site brings all library resources together under one URL. The target audience is students, and the site is replete with resources to engage readers and foster inquiring minds through the complexities of the research process.

WRDSB Library Learning Commons



Secondary library websites use a template that integrates the Learning Commons, enriched with school-specific content.

The Library Learning Commons is a prominent link on every elementary school website. Secondary school libraries use a common template for their websites that integrates the Learning Commons, rather than having the website compete as yet another place to look. Project development has been linked with professional learning initiatives, with tangible program benefits. Secondary teacher librarians have been doing extensive work on developing Knowledge Building Centres that pull in content from the Learning Commons and adapt it as appropriate. A group of centrally assigned elementary teacher librarians are developing KBC templates based on the Grade 7 and 8 History curriculum and integrating learning supports from the Learning Commons. At the system level, the project has raised the profile of the library and library program and has evolved into system-level partnerships with other program areas.

WRDSB Library Learning Commons: http://library.wrdsb.ca/

WRDSB Secondary Library Action Research on KBCs: https://sites.google.com/site/tlpeepswrdsb/

INFOhio

INFOhio is a most impressive example of the relevance and power of a statewide Virtual Learning Community. INFOhio describes itself as an information network for Ohio schools. Its vision statement says it all. "INFOhio, a virtual K-12 library, transforms teaching and learning by connecting educational resources with the power of information technology." The INFOhio website provides an entry point to digital resources licensed on a statewide basis for the state's schools. The collection is quite comprehensive, with online encyclopedias, research databases, and eBook collections. Entry points are differentiated by grade range, and students can use the "Research Calculator" to help

guide them through the information process. The real success of INFOhio is that is recognizes and incorporates multi-tiered professional learning opportunities for educators (online and off), with its resource and opportunity rich 21st Century Learning Commons.

The Learning Commons provides a powerful networking opportunity through its online Knowledge Building Community. The structure of the community imitates the Knowledge Building Center model that educators could in turn provide for their own students. "Simply using the 21st Century Learning Commons and Knowledge Building Community exposes users to community and research tools that not only are valuable to them as educators but also to their students." (Schwelik and Fredericka, 2011)

The work done in Ohio is quite extraordinary. Two decades ago library and education leaders in many American states recognized the positive impact of libraries on student learning and began doing large scale research studies. In Ohio, these leaders worked with researchers Ross Todd and Carol Kuhlthau to conduct an innovative and important study, *Student Learning Through Ohio School Libraries*, published in 2004. Most importantly, they used the findings of that study – that school libraries help improve student achievement – to drive large scale and sustained innovation in Ohio. Clearly INFOhio provides the ultimate example of the benefits of comprehensive and thoughtful investment in the school library program.

INFOhio: http://www.infohio.org/
INFOhio 21st Century Learning Commons: http://learningcommons.infohio.org/

What District Leaders Can Do To Make It Happen

Creating a district-wide Learning Commons is a big and perhaps even an audacious idea. But the potential for extraordinarily positive outcomes is huge and worth the investment. Clearly an initiative of this scale cannot fly under the radar. Library program leaders at the district level are uniquely placed to improve learning opportunities across their system, and in doing so, build a strong, evidence-based case for continued and sustained investment in the school Learning Commons. Important strategic steps can move that audacious idea to the reality of a district VLC.

Create a Shared Vision, and Leverage Collaboration

There are clearly very compelling reasons for creating a district Virtual Learning Commons. Nevertheless, creating a shared vision can be very challenging. Teachers and teacher librarians engrossed in the challenges of the front line often need help in seeing the bigger picture. Senior administration in the district may not understand the potential.

A district VLC needs to be understood as being equally useful to the most challenged and most innovative school library programs alike. The compelling need and promise of benefits for everyone may provide the engagement needed to proceed. When the project is used to drive professional learning and instructional innovation, and when collaboration is sustained over time, the district VLC can become the foundation of the program and the most visible demonstration of its relevance. The VLC project can provide firsthand insight into what students can achieve when given similar frameworks for collaborative learning.

A shared vision is not an idea... it is rather a force in people's hearts... a force of impressive power. It may be inspired by an idea, but once it goes further – if it is compelling enough to acquire the support of more than one person – then it is no longer an abstraction. People begin to see it as if it exists.

Shared visions derive their power from common caring. Shared vision is vital for the learning organization because it provides the focus and energy for learning.

– Peter Senge

Quoted in:
Johnson, Doug. *The Indispensable Librarian: Surviving (and Thriving) in School Media Centers.* Linworth Publishing Inc., Worthington, Ohio.1997.

Work Within Your Means, But Stretch the Limits

Part of the vision of the district VLC may be to mitigate constraints at the school level. But of course there are similar constraints at the system level, and in many districts these constraints are quite daunting. The scaled model presented early in this chapter recognizes these constraints. A basic district library website that connects all learners to resources no matter what school they attend is clearly useful in and of itself. Doing a good job with this basic project sets the stage for deeper development as opportunities arise, and indeed the project's success may be the catalyst for moving towards a richer and more dynamic Virtual Learning Commons at each individual school site.

Be Thoughtful About Design

As we have learned throughout this book, web creation tools are now easy to use and can yield quite sophisticated results. That everyone can now use these tools with little to no training is clearly a huge benefit. That everyone can now create messy, confusing, and poorly designed websites is clearly an equally concerning limitation. Design is important. Design needs to facilitate learning, not detract from it. With the virtually unlimited access to resources that characterizes today's information environment, Thomas and Seely Brown (2011) talk about the need for a bounded and structured environment within which learners have "unlimited agency" to explore. The power of their new culture of learning is finding a way to "marry structure and freedom to create something altogether new". The design and structure of the website needs to foster this vision of the new framework for learning. The design of the district site can be a positive influence on, and model for, related projects such as school VLCs and Knowledge Building Centres.

Work Within Organizational Structures

If you can't beat it, join it. If you can't live with it, change it. From a technological point of view, it is extremely tempting to proceed immediately with the project using available free technologies.

For a project of this scale and at this level of an organization, some caution must realistically be recommended. If the application is not supported by the organization's IT department, going down this path may create too many problems, despite the perceived benefits. Ultimately this project will almost certainly prove to be more technically complex than a school-based initiative. You will need IT support. Without it, you almost definitely would have to give up the significant strategic advantage of the site being hosted by the district, and using the district's domain name. The risks of being a maverick and working outside of the organization's technological structure are too big, and the consequence would almost certainly be marginalization.

Having said that, it may take some perseverance to achieve the level of openness desirable to make the VLC work as interactively as it should. Large organizations are slow moving and conservative by nature. Information technology departments are charged with the safety and security of large, complex systems, and educational organizations are also charged with safeguarding the privacy and ensuring their safety of their students and employees. It is important to have considered these factors thoroughly so that you can work within the system to help shift understanding. Advocacy within a large organizational structure can be painstaking, time-consuming, and frustrating, but ultimately extremely worthwhile.

When system barriers are encountered, innovative building level personnel may develop and test new ideas as pilot projects for consideration across the district. In this way, the district can foster its own Experimental Learning Center as IT staff consider improvements and even innovations to what they are doing. When district IT staff run a top down organization, they miss the flatter networked community; the very thing they are trying to promote at the building level.

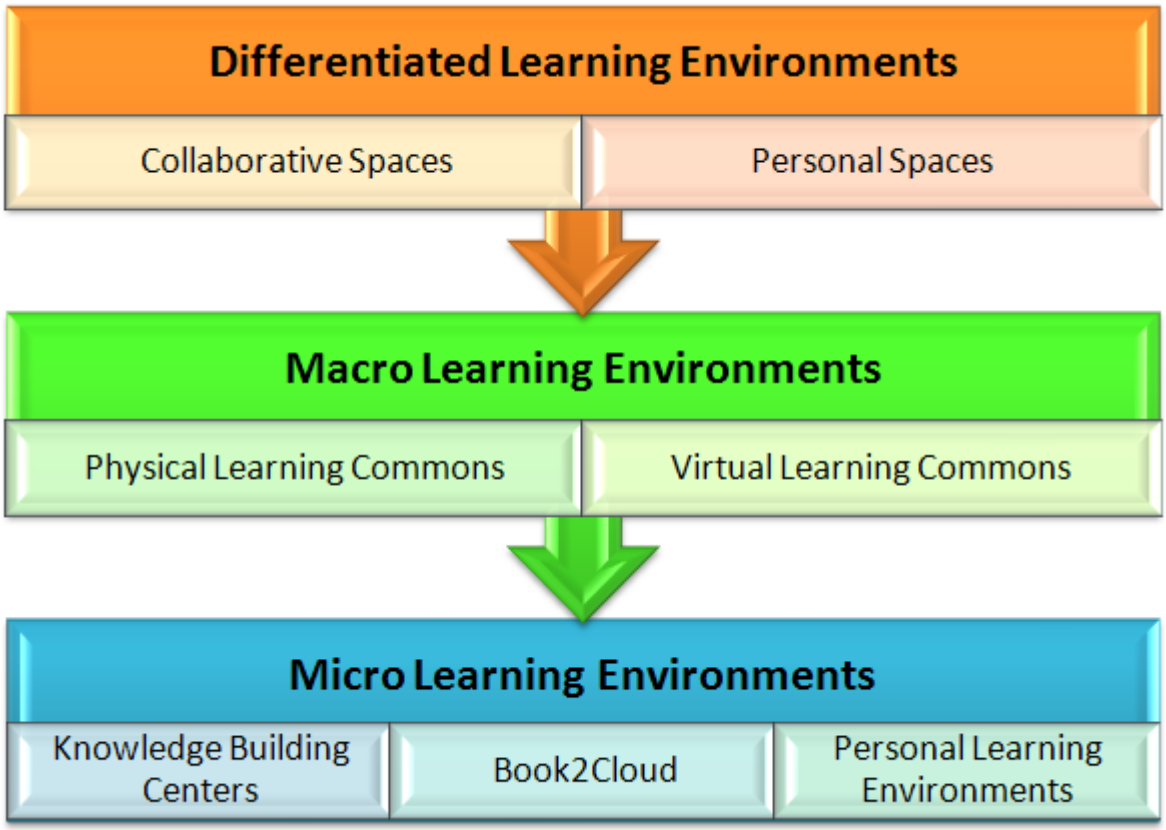
A district or state/provincial VLC initiative can indeed be the catalyst for widespread program innovation. Such a project clearly demonstrates leadership in action, and can model the very learning environment amongst educators that it aspires to foster in the larger community of learners.

Chapter 14

The VLC Supporting All Digital Learning

The Virtual Learning Commons as it evolves will grow to support not only learning experiences initiated in the Library Learning Commons but all learning in the school. The very nature of this collaborative space will spawn many new partnerships and yet unrealized applications. The VLC will forever be a space of continuous change as new strategies and technologies drive new approaches. The VLC will enable both teachers and students to take control of their own learning needs and also to contribute to the learning of others.

This chart breaks down the major learning environments of the Learning Commons.



The VLC supports all learning environments in the Learning Commons and the entire school community including face to face, blended and digital experiences.

Face to Face Learning

Teachers and students can pull pieces from the VLC to support and enhance learning in physical spaces at school and at home. Some examples of this are: demonstrations using tutorials, reviewing of project exemplars, links to book reviews, and accessing templates, rubrics and organizers for printing. The online Knowledge Building Center that has been built collaboratively with the classroom teacher and other specialists, is the engine that drives face to face learning as well. It keeps everyone on track, informed, and provides the place to house work, projects, and have concurrent discussions.

Blended Learning

This is a balanced approach to learning where some parts of a learning experience play out in the real world and others in the online world. This approach is popular because it provides the use of technology at the point when its use would boost learning the most, and face to face when that approach would be the most beneficial. Variety is always a good strategy in learning experiences because it will appeal to the widest range of learning styles.

Teachers can direct students to resources on the VLC to support blended learning experiences such as WebQuests, Guided Inquiry, Literature Circles, and other challenges. Examples include linking to school databases, working in a Knowledge Building Centre, accessing a project wiki, and mounting student creations for sharing. Teachers will also be able to easily pull on the rich resources of the VLC to create Flipped Classroom learning experiences or other home learning experiences for special needs students.

Digital Online Learning

Many schools now offer entire courses online. Totally online learning experiences can be created for an individual learner or for groups of learners. These digital learning experiences happen in virtual space, either asynchronously or synchronously, or with a mixture of both. For either, the Knowledge Building Center is the foundational organizational element. All online learning courses need to be connected to the rich resources and learning spaces of the VLC and supported by a virtual teacher librarian.

We discourage online educational modules designed for individuals to complete in isolation from other learners. Many of these types of lessons or units follow behavioral patterns that are counterproductive to learning and to long-lasting results. These often include lectures or readings followed by questions to be answered, or problems to be solved and projects to complete. As we question those teens who are taking such courses, we often find that they do the work just to get the assigned class out of the way; and, they find them much easier and more simplistic than face to

face classes in traditional schools. Doing your own survey of young people engaged in such courses will provide you with both techniques to avoid and hopefully ideas to improve such experiences.

An Example of Synchronous and Asynchronous Mix - David Loertscher's Experience

With graduate students and some high school students, I conduct, over a semester, synchronous bi-weekly workshops. In these sessions, conducted using Blackboard Collaborate, there may be brief lectures, but they are mostly projects that are being done in real time by various small groups who then bring their work together for the entire class to analyze and synthesize during the two hour experience. To be sure, time zones are a problem when various students come from Europe, North America, and the Far East, but the collaborative building, solving, creating, and contributions are so involving that everyone seems to talk, work, think, and build in real time: a real example of collaborative intelligence. The professor may open with a problem to solve or with a challenge. Students then are divided either by interest or at random into smaller work groups to work on the problem. Their work might end up in something like a Google Spreadsheet, so that they can see what each group is doing in real time, and so that the instructor can watch what is happening in all groups simultaneously. Then the groups come back together as an entire class to compare, contrast, and synthesize what happened both in the individual groups and across groups. As the instructor, I find such learning activities very involving, creative, and at very high levels of Bloom's Taxonomy. In addition to these workshop sessions, both individuals and small groups are doing various assignments or projects on their own time in between workshop sessions. Asynchronous projects change so that various partnerships happen during the semester in order to give variety. The mix, over time, seems to have produced the highest level of learning and the most deep understanding that the instructor has experienced across years.

Tips for Online Design

What do you need to consider when designing virtual tasks?

- Don't just do what you did before. Make use of the benefits of online learning and be aware of its drawbacks
- Make sure that students attain the skills required to fully utilize the modes of communication available
- Use the potential to build a 'sense of place' among students
- Aesthetics and good design are important
- Build a collaborative culture
- Design for inquiry, critical thinking, and problem solving with real world issues
- Encourage 'tinkering'
- Learn from failures and successes

See the Research Report by Olle Skold: "The Effects of Virtual Space on Learning: A Literature Review," (*First Monday*, Volume 17, Number 1 - 2 January 2012) at: http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/3496/3133

How does 21st Century Learning Apply to Online Learning?

- Learner-centered
- Media-driven (this doesn't have to mean digital media)
- Personalized
- Transfer-by-Design
- Visibly Relevant
- Data-Rich
- Adaptable
- Interdependent
- Diverse

See *Educational Technology and Mobile Learning* for explanations of each characteristic. http://www.educatorstechnology.com/2012/09/characteristics-of-21st-century-learning.html

What else do we need to know about online teaching?

In his article, "6 Tips for the Successful Online Teacher", Richard Rose makes the following assertion: **"**While online teaching offers many rewards for instructors, it takes a special set of skills and attitudes to excel at it. And these are emphatically not the same skills and attitudes that make an exceptional classroom teacher. Here's the mindset it takes to be a successful online teacher:"

- Forget Constant Validation
- Know Thy Students
- Lose Complete Control
- Collaboration Resistance
- Get to Work…Really
- It's Not Just a Day Job

(Rose, 2012)

For a description of each of these mindset traits, see the full article at: http://thejournal.com/articles/2012/06/18/6-must-have-skills-for-online-teachers.aspx

Chapter 15

School Improvement Needs: Measuring and Sharing Success of the VLC

Now how do you know the impact that the Virtual Learning Commons is having on teaching and learning in the school? While a plethora of various measures could be recommended to measure impact, we would like to recommend a few basic ones that the leadership team might consider. In addition, we will couch these in very brief scenarios that we hope will give the reader a few basic strategies to try.

Traffic on the VLC

After its first few months, the school's leadership team wonders if the VLC is getting more users than the old library website. To gather statistics to answer this question, Google Analytics is recommended for consideration and a trial period. This tool allows you to analyze who is coming to your site and how they are using it. Google Analytics has not been installed on the VLC template, so you will have to do this yourself.

> Advice: There are a number of tutorials available from Google on how to install Google Analytics and how to use it. A second method we suggest is to google the question: "Can I add a page counter to a Google site?" There are a number of suggestions and techniques recommended by folks around the world, and you can test several until you get one that works. Even a whole count of traffic to the site would be helpful. Counters for specific areas of the VLC would be even better.

Knowledge Building

With the emphasis in many schools on scores and testing, school administrators wonder if a greater degree of collaboration among teachers is actually enhancing teaching and learning. The central thrust of knowledge building in the school is the idea that two heads are better than one; that is, whenever a specialist such as the teacher librarian joins in the planning, execution, and evaluation of a learning experience, the result will be better than if either adult had worked separately.

> Advice: After each collaborative learning experience, have the adults conduct a Big Think involving learners and adult coaches. From any assessments done for that learning experience, calculate what percent of the students met or exceeded the expectations of both the classroom teacher and the specialist(s) who participated. Include this brief conclusion in each of the KBCs that happen during the year. If, for example, the teacher librarian has been able to collaborate with Mrs. Smith's class three times across the year, try to document in some way not only the overall success but also whether there are any

signposts that the class individuals and groups have been getting more sophisticated in what they have learned and how they have learned over time. Because the actual units are saved in the museum part of the VLC's Knowledge Building Center, a report can easily be constructed at any time for administrators, boards, or something like a parents night at the Learning Commons. Will such efforts turn up in standardized testing? That all depends on whether the test measures the kinds of results stimulated in the collaborations. Theoretically, it should, but trying to parse out what percent of a score would be attributable to KBCs would not be possible. Instead, we are measuring and reporting what the adult coaches and the students value. Report them as case studies or as action research.

Reading Engagement

Providing access to best reading lists, booktalks, and reviews will not necessarily boost the independent reading habits of learners. The school literacy committee wants to know if the VLC, particularly the Literacy Center, has improved attitudes toward reading for pleasure.

Advice: Circulation statistics and surveys will give you part of the answer, but to get to the heart of the question, listen to what learners are saying about what they are reading. Utilize social media to give students a reading voice. Value and encourage all kinds of texts as reading that counts, then set up and support the online conversations. Continue to build physical and virtual collections based on the results.

School Improvement Initiatives

School administrators will be documenting various initiatives across the school year. As well, specialists might want to document their own initiatives, experimentations with technologies, new strategies, or events. These would add to an overall picture of improvement.

Advice: Since the Experimental Learning Center of the VLC is the center of school improvement activity, have each leader of a particular initiative document that effort as a case study. Like KBCs, if each effort is retained in some kind of museum, then the documentation is readily available and transparent to all.

The Teachers

The district Superintendent of Program needs evidence that the last roll out of laptops to schools is paying off in terms of meaningful integration into student learning. Building teacher skills and confidence with technology is of course part of the solution to integration, but also knowing which tool you need for a specific learning outcome is equally critical to success.

Advice: Tutorials and tools in the Information Center portal can easily be organized by learning objective. For instance, they could be organized by stages of a research process, or classified by levels of Bloom's Taxonomy or both. Building teacher efficacy should be a major goal of the VLC.

The Specialists

The school administrator has noticed through various interviews that not only do the classroom teachers feel isolated, but the specialists of the school feel more so. Everyone seems to have their little piece of the pie but few have any sense of the whole.

Advice:The Virtual Learning Commons is constructed in such a way that collaboration is a natural response, and isolation (if desired) must be constructed. As the use of this collaborative design occurs (along with encouragement), the sense of community happens. This should instantly be recognized, documented, and evaluated for its impact on the learning community of the school. If the phenomenon does not happen, the leadership team should ask why, why not, and how to fix it. Technology that is used for networking is now ubiquitous. If otherwise, as in any organization; probe, discover, fix, encourage, and document the rise of a healthy new sense of community.

The Learners

Everyone in the school seems to be noticing the increasing amount of testing going on, and are worrying about not only its frequency, but what is actually being measured. So, the leadership team of the VLC worries about what measures to use that would indicate individual progress.

Advice: Use the power of a Google Form to circulate quick questionnaires to students and ask them about their involvement, interest, and suggestions for the VLC. Also, during the Big Think of a learning experience that has its own knowledge building center, pay close attention to individuals, who in spite of more adult attention, did not do well. Listen to the suggestions of these individuals. Actively pursue great involvement and engagement from them. Pay close attention not only to mainstream students but also the gifted, who are often under challenged. The addition of specialists into a learning experience should provide the opportunity to pay closer attention to individuals. Results of intervention into individual success would be an important measure to collect and publicize. As well, think about the percentage of students involved in, contributing to, and accessing the VLC. The higher the participation rate, the better.

iTeam Activities

Students who are on the 'staff' of the Learning Commons can and should contribute to the success of the entire school. When the leadership team of the VLC begins to notice the iTeam's work, they realize that student help is much more than just help. They realize that the iTeam is contributing to the growth of the entire learning community. They demand that the iTeam capture this contribution for their individual student portfolios.

> Advice: the iTeam can learn to build their own Personal Learning Environment, and as they construct their public portfolio on the web, they might include examples of their own expertise, projects that they have collaboratively built with others that made a difference, the types of personal characteristics built as they dealt with both students and adults of all personality types, the conferences at which they presented, the troubleshooting they did for students and teachers across the school, and on and on and on.

Success and Hard Data

Readers should note that we have not recommended measures that result in scientifically based hard data that can act like a precise thermometer in measurement. Much of what we value in education cannot be measured precisely. Yet, we believe that 'soft' measures of such things as a healthy learning community, or progress toward school improvement, or engagement of learners, or critical thinking, or creativity, can be sensed and noted using techniques long known in the social sciences. We maintain that whatever can be measured by testing does have a place. Likewise, the softer measures of results need to stand longside the more exact results. It is not an either/or. It is a both/and. In other words, there is still as much as an art to teaching as there is a science. We are impressed with those who can combine both as a better perspective on value, progress, and results.

BIG Idea
Using David Weinberger's notion of the library as platform, move the concept of 'library' into the heart of teaching and learning, and make the Virtual Learning Commons the "ubiquitous and persistent learning infrastructure" that both drives and supports the joy of learning to learn and consequently school improvement. (Weinberger, 2012)

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

Dr Charles Best Secondary School http://bestlibrary.org/

Earl Haig Secondary School http://earlhaig.ca/library/

Fraser Heights Library Learning Commons https://sites.google.com/site/fhlibrarysite/Home

Markham Middle School Virtual Learning Commons
http://sites.google.com/site/markhamlibrary/

Springfield Township High School Virtual Library http://springfieldlibrary.wikispaces.com/

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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://sites.google.com/site/schoollearningcommons/

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