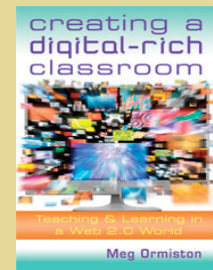




THE MAIN IDEA

current education book summaries



File: Technology

Creating a Digital-Rich Classroom: Teaching & Learning in a Web 2.0 World

By Meg Ormiston (Solution Tree Press, 2011)

S.O.S. (A Summary Of the Summary)

The main ideas of the book are:

- ⇒ By integrating technology effectively into their teaching, teachers can engage students in ways never before possible.
- ⇒ This book provides both the research base and practical strategies for integrating technology tools to improve student achievement and engagement.

Why I chose this book:

I chose this book because there is just too much of a gap between how kids are learning outside and inside of the classroom. The Web 2.0 world is here, and it's here to stay, so all educators should take advantage of this incredible resource and learn effective ways to harness this technology to increase engagement and achievement.

This is NOT a book for your technology experts; they already know about most of these tools. Instead, it is for all teachers who want to discover new ways to use technology – even if it is just one baby step – in their daily teaching.

Furthermore, both high-performing and struggling schools will reap benefits from increasing their technology use. High test scores do not necessarily mean that a school has high engagement and technology can address this issue.

Special This Month! THE MAIN IDEA has a separate pdf with workshop ideas and professional development suggestions for the less tech-savvy leader to learn more about technology and introduce it to teachers.

The Scoop (In this summary you will learn...)

- √ *How technology can help to increase student engagement*
- √ *Overviews of free Web 2.0 tools teachers can use to enhance student learning such as: Google SketchUp, wikis, LibraryThing, and Delicious*
- √ *Overviews of other technology tools teachers can use such as clickers, Skype, and even cell phones*
- √ *How teachers can use an adapted version of Bloom's Digital Taxonomy to help them understand which technology skills support which level of student thinking*
- √ *A list of 'Must Have' technology tools every school should have*

Introduction

For students to truly learn, they need to be engaged. New technology that involves communication, collaboration, and social networking provides a perfect opportunity to engage students in their learning. If districts, schools, and teachers fail to make use of the Web 2.0 – also known as the “Read/Write Web” – teaching and learning will not seem relevant to students. Web 2.0 is the second generation of the Internet and it differs from the first generation in that it is more interactive and allows for more immediate collaboration and communication. Web 2.0 tools include blogs, podcasts, wikis, and other tools found on the Internet that will be described in this book and which can be used to enhance instruction. Imagine the potential for teaching and learning when your teachers and students connect to students, experts, scientists, authors and others halfway across the globe! Note that these tools themselves with *not* create engagement, but rather educators who know how to restructure learning will.

Suggestions from The Main Idea

To get technology tools to be *used* in classrooms means developing a sense of urgency that technology can substantially improve student learning. As the principal, how well do you feel you are currently doing this? Do you model the regular and effective use of technology? If you don't feel as comfortable in this area, can you delegate this leadership role to someone else?

Chapter 1 – Today's Classrooms

Today's students are different. They have never known a life without the Internet, mp3 players, and smartphones. When they want information they automatically go to Google or YouTube when the previous generation would go to the library or open an encyclopedia. This generation is used to turning to technology to solve complex problems and collaborating with others *daily*. Then when these students get to school they are asked to “power down.” They must sit in their seats, listen, and take notes. In contrast to the rest of life, school is boring and students are dropping out in record numbers. We are not teaching in ways that students learn best.

While it is crucial to introduce new technologies into our classrooms, this alone will not lead to increased student engagement. Instead, we need to change the way we plan and deliver instruction and bring those methods up to date to fully engage students. There are a number of obstacles to bringing new technologies to our schools – such as budget constraints and school boards. However, school leaders, by advocating strongly for new technology and using it themselves in a daily way, can overcome those obstacles.

The first step is to examine current policies pertaining to technology use such as cell phones and websites. Which of these policies need to be changed so students can have access to Web 2.0 and personal technology in their classes? Take a look at district policies as well, particularly those that block Web 2.0 tools to comply with the Children's Internet Protection Act (CIPA). By working to change these policies and introducing new technological tools, resources, and teaching methods we can more effectively engage our students.

Suggestions from The Main Idea

1. Take a few minutes to jot down the obstacles you face in integrating more technology in your own school (budget, older teaching staff, restrictive cell phone and Internet policies, lack of comfort with technology among leaders, etc.) and ideas to overcome them.
2. To learn more about CIPA and other legal/ethical issues concerning technology use, see The Main Idea's technology PD.

Chapter 2 – Technology Tools That Increase Engagement and Collaboration

Active learning occurs when students are completely engaged in authentic learning experiences. When this happens, students are more focused and self motivated to complete challenging tasks. Active learning is often collaborative thus addressing students' innate desire to connect with other students. Technology – much of it involving the Web 2.0 – provides numerous engaging and collaborative opportunities to support active learning.

I. Technology That Supports *Engagement*

Technology should be used as a means to support engagement with the content, not as an end in and of itself. This section introduces different types of technology – both software and hardware – that can help improve engagement in classrooms.

A. Student Response Systems -- Sometimes called “clickers,” these are useful for increasing student participation when teachers need to deliver a great deal of direct instruction. Each student holds a device and when the teacher asks a question, students push a button on the device. Their answers are transmitted to the teacher's computer and can be displayed on a screen to show the number of correct and incorrect answers. This is a great means of formative assessment because you can check for understanding instantly. Note that this is an expensive option that runs \$1,200 - \$1,500 for a classroom. You can research more about different brands such as SMART Response, ActiVote, Qwizdom, or CPSPulse.

B. Cell Phones – While cell phones are banned in many schools, not only can they provide an educational purpose but they are cheaper than the student response systems described above. For example, if a teacher sets up a free account on PollEverywhere.com, then he or she can gather student responses from students who text with their phones and display the answers immediately in a bar graph. Cell phones also can be used for their calendars, calculators, cameras, and even video cameras. Cell phones are more and more like mini-computers and even though administrators might be skeptical, they can serve educational purposes. For example, instead of buying a \$100 graphing calculator, students can download a \$1.99 app that gives them access to a better calculator. Of course not

every student has a phone, so using cell phones or smartphones collaboratively would give everyone access to this resource. Finally, schools would have to consider reviewing their cell phone policies, establish consequences for misuse, and also bring together students, parents, and staff to learn about appropriate technology use.

C. *Skype* – This is a free service (www.skype.com) that allows users to make free phone calls over the Internet. With a webcam, Skype allows for free video chats. Foreign language teachers can have students interact with students in another country. A science teacher can bring in an expert from a distant zoo. A language arts teacher can set up an interview of an author who does not live locally. In social studies, legislators can join a classroom debate virtually.

D. *The iPod Touch* – This does everything the iPhone does except make phone calls. They are essentially mini computers and have programs that facilitate active learning (such as the graphing calculator app for \$1.99.) To see some reviews of apps with educational uses (organized by subject and grade) see www.lear.org.

II. Technology That Supports Collaboration

Web 2.0 tools are a natural way to enhance collaboration in the classroom. While many people may be skeptical about social networking sites (such as Facebook and MySpace) because of cyberbullying and inappropriate material, as with other technological tools, teachers can help students use Web 2.0 resources, such as those listed below, responsibly.

LibraryThing (www.LibraryThing.com) – This is a social networking site, but it is all about books. Users can display the books they have been reading on a virtual bookshelf, find out what classmates are reading, read reviews, and have chats about books. Students can access this site at home or at school. School librarians and teachers can use the site to promote books as well.

Ning (www.ning.com) – Allows users to create their own social networking sites (like Facebook) but centered around a certain theme. One example is Classroom 2.0 (classroom2.0.com) which has been created for educators interested in technology, education, and change. This is a great way for educators to collaborate for professional learning, and teachers can create a Ning for their classes.

Delicious (www.delicious.com) – This is a type of free bookmarking site which means that users can share the bookmarks on their own computer with others. If students have bookmarked several websites for a project, they can easily share these with others.

Google Docs (docs.google.com) – This is a powerful Web 2.0 tool that allows several people to share and work on documents together from any computer connected to the Internet. One student can work on a document, presentation, or spreadsheet and then have others make revisions. It's a fantastic tool for peer editing! Also, teachers will appreciate the record of who contributed which revision.

Google SketchUp (sketchup.google.com/download) – This site provides free design software for creating 3-D models. Students start with a basic shape and then push and pull it to create a 3-D version. The advanced features allow students to build to scale. The program has been used by students to design buildings, floor plans, habitats, stage sets for school plays, and more. For example, if a teacher typically has students design a physical 3-D model of a cell, imagine their excitement if they can now use Google SketchUp to create a virtual 3-D model! You can explore over 8,000 videos on YouTube showing how Google SketchUp has been used.

Suggestions from The Main Idea

1. On your own or with your faculty, brainstorm all of the classroom uses you can think of for: student response systems, cell phones, Skype, and the iPod Touch. Brainstorm with the goal of increasing engagement.
2. If your school's cell phone policy is too restrictive for teachers to use this tool for instruction, research the policies at other schools.
3. On your own or with your faculty, brainstorm all of the classroom uses you can think of for: LibraryThing, Ning, Delicious, Google Docs, and Google SketchUp. Brainstorm with the goal of increasing collaboration.
4. Watch the short commoncraft.com videos that explain social networking and bookmarking in plain English (I love these!)

Chapter 3 – Technology to Support Teaching and Learning

I. Technology Can Help Us Meet Standards

Standards have been created at the local, state, and national level. To help educators design technology-rich lessons that also meet standards, Andrew Churches adapted Bloom's Taxonomy to show how technology skills can help students achieve different levels of thinking. Below is an excerpt of the adapted Bloom's **Digital** Taxonomy.

Level of Thinking	Types of skills, including technology skills, that demonstrate this level of thinking	Communication Spectrum
Creating	Designing, planning, making, programming, video blogging, wiki-ing, podcasting	Collaborating
Evaluating	Hypothesizing, judging, blog commenting, posting, collaborating, networking, moderating	Moderating
Analyzing	Comparing, organizing, outlining, integrating, mashing, linking, media clipping, cracking	Debating
Applying	Implementing, carrying out, executing, running, playing, operating, hacking, uploading, sharing, editing	Commenting
Understanding	Interpreting, summarizing, inferring, comparing, explaining, advanced searching, blogging, twittering, tagging, commenting	Net meeting & Skyping
Remembering	Recognizing, listing, describing, retrieving, highlighting, bookmarking, social networking, searching, Googling	Video conferencing
		Questioning
		Posting & Blogging
		Contributing & Chatting
		Emailing & Texting

The goal is to get students to move up the spectrum from the remembering level to the creating level, and technology can help students do this. For example, a teacher might use a video clip to hook students who otherwise wouldn't be interested in a topic. But then they can move up Bloom's taxonomy by having students actually create media as part of the instructional objective. Below are some examples of how to use technology to help students meet standards.

Wikis – Wikis are at the top of the taxonomy under the category of “creating.” Wikis allow a number of users to compose, edit, and view documents. The most well-known wiki is Wikipedia, the online encyclopedia that is written, revised, and critiqued by users all over the world.

Google Earth – All of the Google documents discussed earlier can help teachers provide standards-driven instruction. Google Earth (earth.google.com) allows users to perform a variety of functions with maps. One seventh-grade teacher used to assign a project on Lewis and Clark in which students sketched the sites the explorers visited and affixed sticky notes to the map. Now, with Google Earth, the teacher asks students to find 15 points of interest along the route that Lewis and Clark would find today if they repeated their expedition. Google Earth lets them insert virtual pushpins and include their research for each site. The teacher not only helps the students meet state standards for geography and history, but she also helps meet technology standards as well.

II. Technology Can Help Us Differentiate

Differentiation allows students to follow different paths to meet the same standards. By designing assignments not only with a variety of tasks, but also with a variety of technology tools, teachers can better differentiate instruction. For example, to differentiate the Lewis and Clark assignment, teachers could assign a wide variety of tasks that use technology such as:

- Creating a podcast about points of interest on Lewis and Clark's path
- Making a video about each point on the route
- Using Google Earth to create a map with virtual pushpins, images, or embedded videos
- Skyping with other schools studying Lewis and Clark
- Blogging about the journey from the point of view of Lewis or Clark and having classmates comment
- Using Google SketchUp to create 3-D replicas of places Lewis and Clark might have seen (see p. 46 for more on this)

III. Technology Can Support Reading

Sometimes when readers struggle to understand a text it is because they don't make mental pictures in their heads. Technology can be used to help students create these images. Teachers can assign digital book reports in which students include still images (using Flickr, iPhoto, or Microsoft Photo Story 3), moving images (using Movie Maker, Adobe Premier Elements, iMovie, and iDVD), or sound (using Freeplay Music, Library of Congress, or Royalty Free Music). However, it is important to teach students about important legal and ethical issues concerning downloading images, movie clips, and recordings from the internet. They need to learn when these resources are copyrighted and when the material is inappropriate for students. (See the section below for more on this topic.)

Legal and Ethical Considerations

Before considering any of the many ways technology can be used to enhance learning, both staff and students need to understand the legal and ethical issues for technology use. Many states are adopting the National Educational Technology Standards (NETS) in which Standard 5 states, “Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.” Below is an overview of copyright issues to consider.

Copyright: When students use existing resources from the Web – still images, video clips, etc. – they need to consider legal and ethical issues pertaining to ownership. For more detailed information about legal do's and don'ts in the classroom, see *K-12 Copyright Issues: Primer for Teachers* at: edu-cyberpg.com/Teachers/copyrightlaw.html. Teachers need to teach students what they can and cannot use, and should always require that students include the web address of any resource they use. Many images on the Web are copyrighted. However, one way to avoid this issue is to have students use media from Creative Commons (creativecommons.org), a website that allows anyone to use its images, video clips, and audio clips as long as they don't sell it.

IV. Technology Can Be Used to Publish Student Work

Publishing the multimedia work that students do accomplishes two things: it validates their work and provides a means of assessment for the teacher. It is also an inherent part of the Web 2.0 world to post and share. Rather than simply stapling a project to a real bulletin board, posting something online gives it a much wider reach and more opportunities for feedback. Students can share their work in a variety of ways. They can create a blog (short for web log) in which they write online and people comment. With just a computer and a microphone students also can create a podcast – which is a fancy way of saying an audio file. Students also can share videos. While youtube.com is the most well-known means of sharing video, there is a lot of content not appropriate for students, so they should consider TeacherTube or SchoolTube which are geared specifically for schools. Note that whatever method is used for students to share their work with the world, teachers need to make sure it follows the district's acceptable use policy (AUP).

V. Technology Supports Writing Instruction

Technology does not do away with basic writing skills. Instead, a variety of Web 2.0 tools can help students think differently about writing. In the same way that the pen and the paper were never meant to be the focus of writing, technology tools should also not be the focus – the focus remains on the writing. Below is just one of the ways to use technology to enhance writing.

Wikis – As mentioned before, a wiki is a free Web 2.0 tool that allows a number of people to compose, edit, and view documents. Students can easily add text pages to a wiki and also comment on the writing of others. A benefit to the teacher is that the revision history is recorded so it is clear who is participating in editing the document. Wikis allow students to work on their writing in various ways such as: peer editing, question-and-answer sessions, problem of the day, literature circles, book talks, and pen pal collaborations. To see educator-friendly, easy and free sites to host wikis go to Wikispaces.com or PBworks.com.

Suggestions from The Main Idea

1. Make copies of Bloom's Digital Taxonomy for your faculty. Ask teachers, if they have used technology, where the skills fall on the Taxonomy. Ask them to think about ways to change the technology in the lesson to move students to a higher level of thinking.
2. Since wikis are at the top of the revised Taxonomy, ask teachers to take a look at an existing wiki online as an example. In addition to Wikipedia, they can look at some K-12 classroom wikis which are free to educators at wikispaces.com or pbworks.com such as <http://6thgrade-07.pbworks.com/w/page/1071815/FrontPage>. For an introduction, take a look at the short Commoncraft.com video explaining wikis in plain English (it's great!)
3. Ask a staff committee to create a poster of "Do's and Don'ts" concerning copyright and the Internet that can be posted in every classroom. They can use this resource: *K-12 Copyright Laws: Primer for Teachers* at: edu-cyberpg.com/Teachers/copyrightlaw.html

Chapter 4 – Developing a Digital-Rich Curriculum

A Digitally-Organized Curriculum

An effective curriculum can ensure students follow a path to success, but unfortunately, most curriculum documents lie in a binder gathering dust. Using technology to plan and organize a curriculum has the potential to bring this resource to life. Transferring curriculum documents over from paper to digital makes the curriculum much more easily searchable, accessible, and allows it to be updated more often. A hyperlinked curriculum – with links to a wide range of instructional tools, activities, and other resources – would give teachers much more access to exciting materials to plan and differentiate lessons. Furthermore, the new generation of teachers has grown up collaborating and using social media and they are well-equipped to contribute to this digital curriculum. An open curriculum could have many collaborators and be much more dynamic than a paper one. The idea behind Web 2.0 tools is that collectively we are more knowledgeable, and a collective curriculum will benefit from collaborative contributions as well.

The author gives an example of the power of a digital curriculum in her home state of Illinois. A new curriculum was implemented statewide. There are nine hundred school districts that normally work in isolation, but one district took the state curriculum and created a digital curriculum. They included hyperlinks to reproducible worksheets, educational videos, and lesson plans and added grade-level examples. In the past the Illinois curriculum would have remained in a binder, but this district put their digital curriculum on the web and opened it up to the other districts to adapt and use. Note that just as there are legal and ethical considerations when students use resources from the web, staff also need to be aware of these issues in curriculum planning. In this example, although they decided to share it, the Illinois faculty that created the digital curriculum is the copyright holder whether they've included a copyright notice or not. This means that it's not legal or ethical to republish this curriculum without attributing it to the copyright holders. However, anyone can use, adapt, or share the curriculum

More Tools for a Digital Curriculum

When you begin to think of a curriculum in its digital form, there are many possibilities to enrich teachers' toolboxes of digital resources. Keep in mind that these are not add-ons to the curriculum, these digital resources become an integral part of the curriculum, replacing traditional pencil-and-paper activities. Below are a few additional digital resources:

Digital Textbooks – Traditional textbooks are large, heavy, at times inaccurate, and quickly become outdated. Increasingly, digital textbooks have become available for a fee and there are also open-source textbooks available for free to download. Districts that are moving toward one laptop per child are considering having students carry one laptop rather than several heavy textbooks. Digital textbooks have a number of advantages such as demonstrations of math problems being solved step-by-step, easy search capability, voice programs that read the text aloud for struggling readers or the visually impaired, hyperlinks to other resources, and a variety of activities that makes differentiation easier for teachers.

Google Again – From Google Earth to Google SketchUp to Google Maps there are many digital sources from Google to enhance the curriculum.

Video – Video is a huge part of the Web 2.0 revolution. The current generation of students has grown up on YouTube. Before YouTube was mentioned as a way to publish student work, but it also can be a useful tool in planning curriculum. In some districts YouTube is off limits, but school leaders need to trust teachers to preview any video content before incorporating it into the curriculum. Videos can be very useful in presenting, enhancing, or supplementing content learning. Teachers can find videos online on almost anything from cells to reading.

Suggestions from The Main Idea

1. Put together a technology committee to explore the idea of putting the school's (or just one grade level or subject) curriculum online so it can include hyperlinks and be shared. The committee could also research open source digital textbooks as a potential resource.

Chapter 5 – Must-Have Technology for the Ideal Classroom

Four Factors Necessary to Create Digital-Rich Classrooms

To ensure that a school has the necessary basics to establish a digital-rich curriculum and instruction, there are four key factors that must be in place – permission, expectations, funding, and ongoing support:

- 1. Permission** – School boards and administrators can block access to technology or facilitate technological innovation. To have successful digital-rich classrooms, school boards and administrators must *permit* teachers to use technological tools and resources.
- 2. Expectations** – In addition to permission, authorities must develop the expectations that teachers will learn about and use technological tools. Principals and instructional leaders may need professional development themselves to be fully supportive.
- 3. Funding** – Even when budgets are being slashed, there are creative ways to fund technology.
- 4. Ongoing support** – Teachers need to be provided with ongoing professional development as new technology is developed.

Equipping the Ideal Classroom

Out of the endless possibilities for integrating technology, how can educators distinguish between the essentials and the nice-but-nonessentials? Below are the author's suggestions for eight technological tools that should be in every classroom. It is important to note that if technology is to be integral to the curriculum, then it must reside *in* the classroom rather than having to check it out or move it somewhere. The idea of the stand-alone computer lab does *not* fit with the ideal use of technology in the classroom.

- 1. Laptop for the teacher** – All teachers should have a powerful laptop they can access 24/7 all year. Some cost less than \$300 each.
- 2. Laptops for every student** – Every student should have use of a laptop accessible 24/7 but there should be “lids down” times when students have discussions or work individually without a computer. This can be expensive and may have to happen in smaller steps – either one grade at a time or five laptops per class linked on the same network or computers on wheels.
- 3. Interactive whiteboard (IWB)** – An IWB looks like a simple white board but it becomes a computer screen because it is connected to a computer through a USB port. The user can manipulate it with fingers or electromagnetic pens. There are many benefits – some come with tools like electronic protractors and interactive maps. A video can be made of an entire lesson for an absent student or for review. IWBs do not work well when shared.
- 4. Multifunction speakers** – The ideal classroom should have high-quality speakers.
- 5. Voice amplification system** – This amplifies the teacher's voice to help overcome school noise. Students can also use the microphone for delivering reports or skits.
- 6. Document camera** – Documents are placed under a camera and projected onto a screen. Anything can be projected for the whole class from a dissected frog to a student composition to a teacher demonstration.
- 7. Student response system** – Student response systems were described in Chapter 2 to increase student engagement.
- 8. Stable, wireless, robust network with limited blocking and filtering** – Inappropriate sites should be blocked but excessive blocking limits learning.

Suggestions from The Main Idea

1. You will not be able to successfully integrate technology into your classrooms if you do not have the support from the school board, district, and other administrators. Create a PR campaign to demonstrate the need for and the potential of technological integration.
2. With your leadership team, map out your vision of the school's “ideal classroom” in terms of technology. What technology would you like in place by the end of next year? Within five years?

Chapter 6 – A Snapshot of a Digital-Rich Classroom

Meg Ormiston took a group of teachers to observe a class in which the students had fully embraced active learning due to the new technology that was being used. The teacher, Nicole, has been able to create a successful technology-rich classroom for a few reasons. She has incorporated a variety of Web 2.0 tools that serve to engage her students and enhance their learning, she has a leadership style that motivates students to learn, she has taken advantage of new opportunities to help her plan, and she has the support of both the administration and parents.

Nicole is a fifth grade teacher in her sixth year of teaching, but she has only been working with technology for the past seven months. Nicole received a grant and now has access to an interactive whiteboard, a laptop, a projector, speakers, Flip cameras, and iPods. Using these tools and free Web 2.0 tools for this particular unit, she was able to transform her students' experiences with literature circles to get them more involved. She had the same objective as she had before using the technology tools: to summarize the book they were reading. However, they were organized into seven different groups, based on their choosing, to get at this objective in different ways. When the author visited her class, none of the students were off-task. All students were contributing to their groups. Below are examples of what some of the groups were doing:

- One group was listening to an audio version of the book and were planning to create their own podcast as a summary of the book. They were using Audacity (audacity.sourceforge.net), free online software, to record and edit audio files.
- Another group was using Flip cameras (low-cost video cameras) and editing their work with Flip software to do mock interviews with characters in the book.

- Another group had chosen to use Voicethread (voicethread.com) to create a media presentation. This is an online tool that provides a platform for discussion around a media presentation.
- Yet another group chose to use the interactive whiteboard to create a presentation, using images, of the book summary.

Nicole is successful not just because she has all of her students on task. She also has the following:

Assistance with lesson planning – She learned the software for the interactive white board and this helps with her planning. She always starts with a clear goal and then is very collaborative – she shares and receives lesson ideas from down the hall and, with technology, across the globe. With the goal of getting her students more involved, she has expanded her instructional repertoire by finding useful sources on the web. Finally, she uses Moodle (moodle.org), open-source software, to plan and stay organized. Moodle helps Nicole provide her students with a classroom calendar, discussion boards, descriptions of upcoming events, and a place to upload assignments and student work. Moodle also can be used for quizzes, wikis, databases, and chats.

Support – In addition, Nicole receives a great deal of support from her principal. The principal always looks for professional development sessions around technology for Nicole and supports her in her grant writing. The parents also fully support her and give her positive feedback about how excited their children are about the work they’re doing for her.

Suggestions from The Main Idea

1. Take a group of teachers or administrators on a “technology field trip” – this could even be in your own school – to see a digitally-rich classroom. Make sure to debrief afterward about *how* the technology supported student learning.

Chapter 7 – Changing Professional Development

Technological tools themselves won’t transform teaching and learning; there needs to be a commitment to ongoing learning about technology at all levels of the school. Teachers should take responsibility for their own individual learning and school leaders should organize professional learning around technology for the entire staff as well.

Using Web 2.0 Tools for Teachers’ Own Professional Development

Today there is a belief that businesses must collaborate or they will perish. The author believes the same for education – if educators don’t collaborate they won’t be successful in our current, fast-paced world. Web 2.0 tools provide a free and readily accessible means of collaboration and teachers need to take responsibility to use these tools for their own professional development. Teachers have always used social networking as a way to collaborate; the Web 2.0 tools just provide a new means of social networking. Below are some Web 2.0 social networking tools teachers can use for their own professional development.

Facebook (www.facebook.com) – Now the most popular social networking site, it allows users to meet others, post images and text.

Plurk (www.plurk.com) – This is a free micro-blogging service that, like Twitter, allows users to send short messages to each other. However, the messages are displayed chronologically.

Twitter (<http://twitter.com>) – Twittering is quite popular now. It allows users to send short messages or tweets, limited to 140 characters or fewer. At first the author found it to be a waste of time, but now she says it is her number-one source of professional development. It allows people who are interested in similar topics to communicate. The 140 character limitation is helpful for those who are busy but wish to collaborate without having to sort through wordy posts.

In addition to using social networking sites for professional development, teachers can explore other online tools. They can take classes or participate in webinars online (the author teaches at illuminate.com and gotomeeting.com), or find both free and paid subscription-based professional development courses and workshops (such as PBS TeacherLine and Learner.org). Some districts provide their own online professional development opportunities. The great thing about online professional learning is that it does not have to take teachers away from their students or families – it can be done anytime! For any form of individual professional development to be successful, the leader must set clear expectations, help teachers set goals, support teachers, and follow up.

Professional Development Organized by School Leaders

In addition to teachers learning about technology individually, professional development also should be organized by school leaders. Meg Ormiston provides an example of being hired by school leaders to work with teams of teachers to redesign their teaching with technology to maximize learning. They focused specifically on the curriculum and the question, *How might lessons be restructured to take advantage of new technology?* She had teachers bring in student work from a unit they had taught and as a group they discussed ways they could make the unit more effective using technology. Ormiston served as a coach communicating with them through schooltown.net to provide them with new strategies to try. She would also co-plan and then teach a model lesson as well as visit classrooms to offer support and suggestions. This type of work need not be provided by an outsider – an instructional coach or a teacher with technology expertise could provide this type of professional development as well.

Suggestions from The Main Idea

1. If you are skeptical about Twitter as a means of PD for yourself as the principal, ask a few colleagues who they follow on Twitter and give it a try! You don’t need to send out any tweets, just follow a few links to see if they are useful.

2. Consider taking the question introduced above and make this a theme for your PD for the next year. The question is: *How might lessons be restructured to take advantage of new technology?* Who on your faculty might help lead the way?