Modifying Pedagogy with 21st Century Skills

a presentation by John Hendron

WHAT DOES THE CULTURE OF TEACHING LOOK LIKE AT YOUR SCHOOL?

Today, technology and the "proven" ways of teaching may not be in sync. There's growing evidence that today's digital culture—one born of cell phones, game consoles, and television—has an impact on student learning. Methods that seemed appropriate for an earlier generation just cannot compare today when students are used to a hyperlinked, always-on and available lifestyle.

As I have come to find, adopting your teaching style around the latest tools isn't always effective. A lot of technology may find its way into your school for reasons other than it being the "best tool" available. Instead, let's think of changing our teaching style, our pedagogy, for addressing a series of skills necessary for success in the 21st century. There are several definitions of 21st century skills, but one widely recognized organization that has codified a list is the *Partnership for 21st Century Skills* (www.21stcenturyskills.org). This organization of business leaders and educators provides us with a framework to begin thinking about the culture of teaching going on in our schools today.

21ST CENTURY SKILLS ARE IMPORTANT

Goochland County Public Schools (VA) identified several skills and areas we thought were important for learning today, and are the basis around which we are slowly changing our culture of pedagogy. These include problem solving, global society, real world, communications, media and information literacies, Research 2.0, and teaching skills. We have created a framework called G21 for the promotion of these skills in classroom activities and projects.

G21: GOOCHLAND IN THE TWENTY-FIRST CENTURY

The key to our G21 projects is this "core" model for building a project-based lesson. We believe well-planned educational products start with one or more **core subject areas** from the curriculum. The skills and standards associated with these subject areas then help define **learning objectives**. Learning objectives in creating or participating in a project come about from the **synergy of tools and how these tools are to be used**. Tools today may include traditional learning tools (books, pencils), but more and more are including a variety of software applications and handheld devices. The **means** by which these tools are used should encompass our identified 21st century skills. Various means may include working together in a small, collaborative group, targeting awareness of globalization, or communicating through multimedia. And finally, the **product** is what kids are producing. In many project-based lessons, students are challenged to produce a product, whether it be a collaboratively-authored story, a podcast series, or a hands-on product that finds a place within the community.

Our G21 projects were developed after five years of planning each year with teachers a pair of individual technology goals. G21 took away focus on the tool, and placed it on pedagogy.
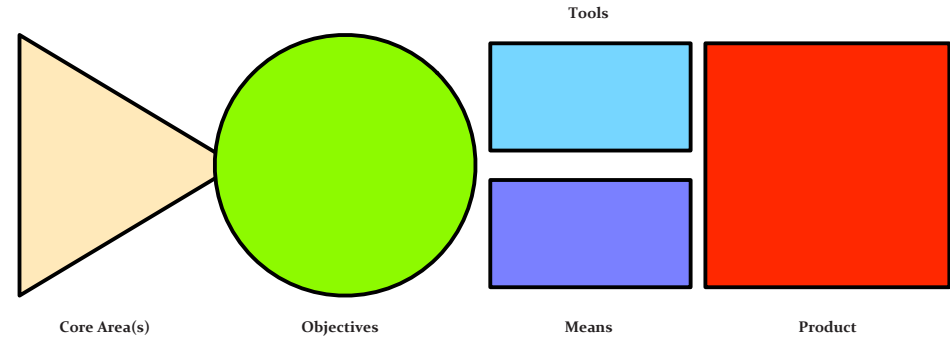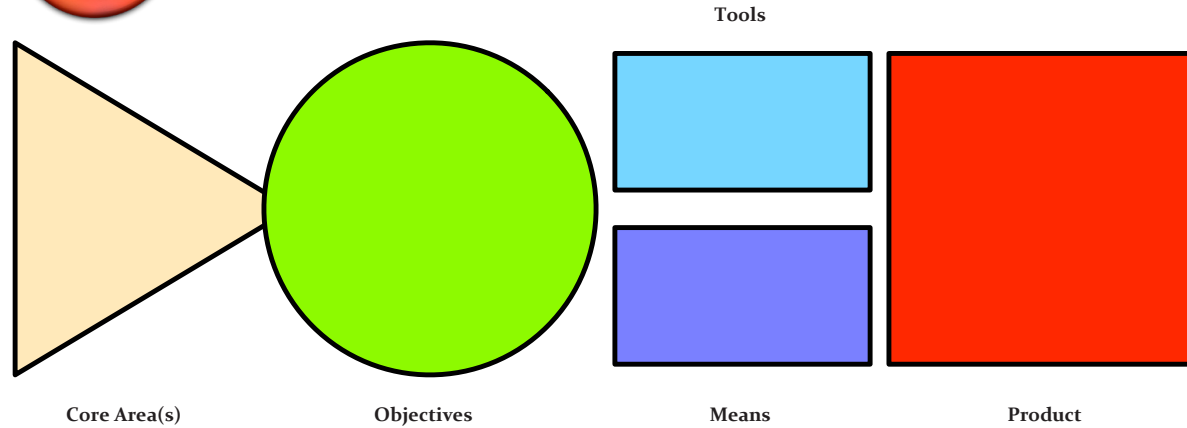

Tools

Core Area(s)   Objectives   Means   Product

21st Century Skills Innovation Goal

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G21

Real World	Collaborate Large Group	Collaborate Small Group	Research 2.0	Manage Time & Resources	Problem-Solving
Financial, Business, Economics	Global/ Multi-Cultural	Teaching	Communication	Creativity	Self-Directed

Tools

Core Area(s)   Objectives   Means   Product

Visual Art	Real-World Tools	Technology Productivity	Physical	Audio	Pictures / Animation	Text	Real-World Product
Music	English/ Language Arts	Dance	History/ Social Studies	Mathematics	Science	Career & Domestic Skills	Kinesthetics / Physical Education

Along with identifying an assessment strategy for their project, teachers walk-away from their planning session with this framework filled-out for their project. School administrators and an ITRT sat-in on the planning of each G21 project.
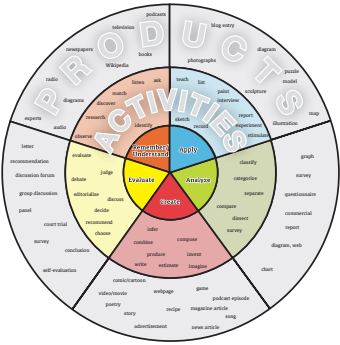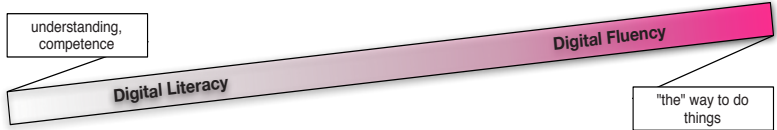
THE ROAD TO G21

G21 didn't happen overnight. A long tradition of high quality professional development centered around technology integration paved the way since 2000. During the 2007-08 SY, we introduced concepts of digital literacy, digital fluency, and the "digital learner" to teachers across the division. In the summer of 2008, we trained our administrators on how to establish a digital culture in their school.

Questions we posed to teachers include: "How can students use available technology to work together and find solutions? How can we adapt learning experiences for a digital age shaped by media, games, and culture found outside the school?"

We encouraged administrators to establish a modern-age culture in their buildings by **gauging** the levels of comfort with digital technologies, **define** throughout the year the differences between digital literacy and fluency, to **re-evaluate** the Revised Bloom's Taxonomy, to **assess** where teachers need help, and identify agents of change in their building.

Principals and central office administrators examined the state of culture in their schools with regards to learning with digital tools.

out of lifestyle

Comfort with Technology

within lifestyle

understanding, competence

Digital Literacy

Digital Fluency

"the" way to do things

SUMMARY

Changing teaching styles of teachers is never an overnight process. We must celebrate our successes by identifying what works well. The culture of teaching should keep-up with influence in the real world, the good, the bad, and the ugly. Technology today can play a tremendous part in making us more productive. Technology also provides us with opportunities for deeper learning when it is coupled with the acquisition of skills that help promote life-long learning and adapability.

Goochland's G21 projects require each teacher to plan at least one project-based lesson or unit with the assistance of the supervisor of instructional technology, building administrators, and an instructional technology resource teacher (ITRT). G21 projects are planned around multiple subject areas and multiple 21st century skills.

Each plan includes a plan for assessment.

G21 projects are evaluated by the individual teachers (many whom have partnered together to collaborate on their G21 projects), building administrators, and central office personnel.

For more information on our G21 projects, please see the resources listed on the next page.

RESOURCES

http://www.glnd.k12.va.us/resources/g21/

http://www.glnd.k12.va.us/wiki/index.php/Handouts/G21-Research

http://blogs.glnd.k12.va.us/teachers/jhendron/

http://blogs.glnd.k12.va.us/teachers/jhendron/2008/11/03/research-20-for-high-school/

http://blogs.glnd.k12.va.us/teachers/jhendron/2008/10/29/search-collect-evaluate/

ABOUT GOOCHLAND COUNTY SCHOOLS

Goochland County Schools are a public school division located in central Virginia, just west of Richmond and County of Henrico. Goochland currently educates around 2,500 students in 5 schools. Goochland currently has an active deployment of Promethean Activboards in its middle and high school complex, and supports a 2:1 student to computer ratio in an all-Apple Macintosh environment.

Learn more about the technology plan in Goochland by visiting our website:

http://www.glnd.k12.va.us/index/instruction/technology_plan/

ABOUT THE AUTHOR

John Hendron has been a presenter at the TechFest/EdTech conference since 2000, held each year at Randolph Macon College in Ashland, Virginia. John serves on the **Greater Richmond Area Educational Technology Council** (GRAETC). He currently is employed as supervisor of instructional technology for **Goochland County Public Schools** (Virginia). Among his accomplishments in Goochland, John implemented the *Teacher Blogging Initiative* in 2005 and the *G21 Projects* in 2008.

John was recognized in 2006 by the **Virginia Department of Education** as Virginia's state technology leader at their **Educational Technology Leadership Conference**. He is a member and director for the **Virginia Society for Technology in Education** (VSTE).

John writes regularly for four weblogs, including *Hendron's Digest*, a blog dedicated to education and technology, available online for free at *http://www.johnhendron.net/digest/*.