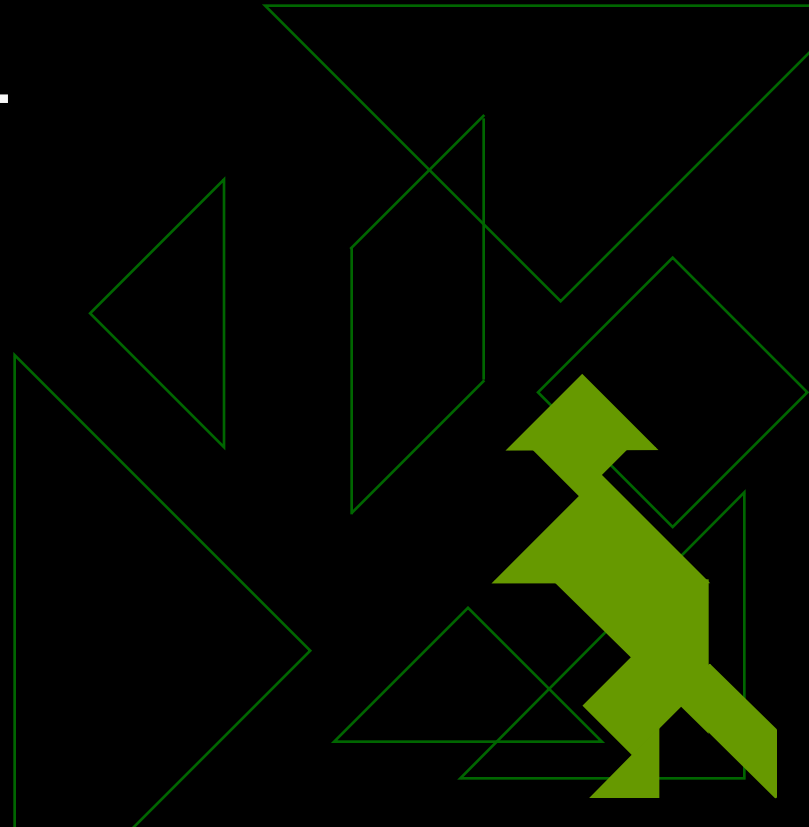


Teaching in a digital classroom

With Jorge Nelson, Ed.D.

Agenda

- ◆ Readiness survey
- ◆ Corporate/political pressures!
- ◆ Traditional classroom...
- ◆ ...Digital classroom
- ◆ What's next???
- ◆ The Big Picture!!!



Are you ready for the Internet Age?

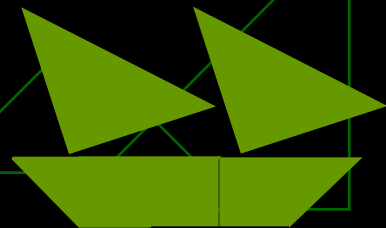
- ◆ Learning in a digital classroom
- ◆ How digital are you?
- ◆ Digital infrastructure
- ◆ 18 questions regarding level of infrastructure in place



Corporate Arena

◆ “The single most important use of information technology is to improve education.”

-Bill Gates, Microsoft Chairman and Chief Software Architect



Political Arena

- ◆ A recent study chaired by U.S. Senator Bob Kerry has identified a number of research-based findings for educational improvements in this digital world.



Web-based Education Commission

1. Build a new **research framework** of how people learn in the Internet age.
2. Provide continuous and relevant **training and support** for educators and administrators at all levels.



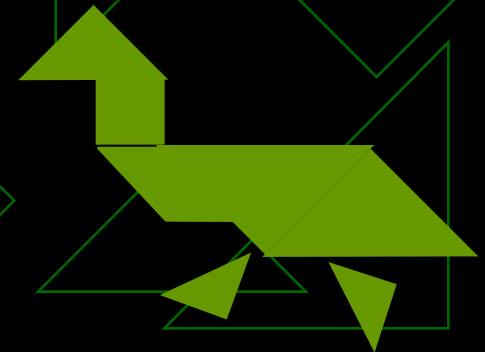
1. Research framework

- ◆ A vastly expanded, revitalized, and reconfigured educational research, development, and innovation program is imperative.
- ◆ This program should be built on a deeper understanding of how people learn, how new tools support and assess learning gains, what kinds of organizational structures support these gains, and what is needed to keep the field of learning moving forward.



how we learn

- ◆ “School is a place where students learn largely by working on projects that come from their own interests -- their own visions of a place where they want to be, a thing they want to make or a subject they want to explore. The contribution of technology is that it makes possible projects that are both very difficult and very engaging.”



2. Training and support

- ◆ We heard that professional development-for preK-12 teachers, higher education faculty, and school administrators-is the critical ingredient for effective use of technology in the classroom.
- ◆ However, not enough is being done to assure that today's educators have the skills and knowledge needed for effective web-based teaching.
- ◆ And if teacher education programs do not address this issue at once, we will soon have lost the opportunity to enhance the performance of a whole generation of new teachers, and the students they teach.

One teacher's perspective on PD

“During the past decade, I have had the opportunity to attend many technology in-services. Most were informative, but only one offered **training, support and product**, rather than just training. This invaluable combination changed my teaching forever. It was the only technology training that I have participated in that understood we need all three components in order to successfully infuse technology into our teaching.”

- Leslie Lederman, third grade teacher, Discovery Elementary School, Sammamish, WA



5 tiers of online PD

F. Odasz lone-eagle.com

1. Know about the VAST curriculum archives on the Internet.
2. Share useful resources plus some camaraderie to combat the isolation.
3. Multi-classroom project-based learning activities to teach collaborative skills using the Internet.
4. Teach Internet Empowerment to the kids and have them share their skills with the community.
5. Help teachers understand the most convenient way to receive professional development to keep certifications current is online. Once they do one online course, they generally swear they will do all their professional development online for the rest of their lives.

The way we were

◆ Traditional classroom

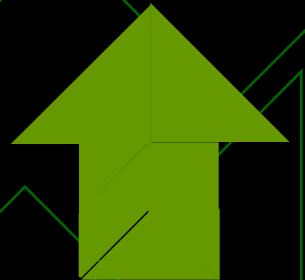
“Some teachers elicit greater gains than others because of differences in **how** they teach”

– from Teacher behavior and student outcomes by Jere Brophy, Ph.D.



What has changed since then?

- ◆ MS Office 2000: WORD, EXCEL, PowerPoint, Digital Nervous System
- ◆ Internet resources, e-books, digital art/photography, streaming video/audio, artificial intelligence, simulations



OFFICE 2000

"Office 2000 lets us consume information faster and improve the quality of our decisions because it lets all of us get multiple perspectives. . . . When I was an engineer, there was no sharing of knowledge because it would devalue your unique attributes. That model is not in place anymore. Now what is important is how fast you can **work with your peers** to deliver value to a firm. Office 2000 enables us to do that."

- Larry Leibrock, Ph.D., the University of Texas at Austin Graduate School of Business's associate dean for technology and chief technology officer



The way we should be

Evidence indicates that when used effectively, "technology applications can support higher-order thinking by engaging students in authentic, complex tasks within collaborative learning contexts"

(Means, Blando, Olson, Middleton, Morocco, Remz & Zorfass, 1993).



Evolving technologies

- ◆ **Are you planning for the future while you gear up digitally?**
- ◆ **Who will provide the dominant software platform of the next generation of computing?**



Internet software – anywhere, anytime

- ◆ “Already the battle lines are already drawn. On one side is Microsoft, with its .NET plan; on the other is an array of rivals, including IBM, Oracle and Sun, touting a technology based on the Java programming language”

– The Economist, 16/02/2002



"The next 10 years..."

◆ "... will be the most exciting time to be using technology, especially in the classroom. Our .NET Platform is the platform of the future, and it powers and will continue to power all our programs, products and services and will help improve the learning experience for students, educators and parents."

– Steve Balmer, CEO @ Microsoft



What's emerging that's already cool?

- ◆ "...the Schools Interoperability Framework (SIF), a standard that ensures compatibility among school software applications to support greater accountability, better decision-making and more efficient management"

– PRNewswire, Microsoft – 11/02/2002



The Big Picture

◆ **Connected Learning Community:**

- **Students, educators and parents have anytime, any place access to learning.**
- **Learning is relevant, individualized and personalized.**
- **Schools have information systems that support accountability and efficient management.**
- **Schools, campuses, homes, libraries, businesses and global resources are connected in a dynamic, collaborative learning environment.**

Are we ready?

- ◆ A parable of the future...



Next steps

- Check out F. Odasz's list of best sites at www.lone-eagle.com
- Research the Connected Learning Community at www.microsoft.com
- Keep in touch...<mailto:jorge@baliis.net>

