A Vision for 21st Century Schools

On the Road to the 21st Century

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North Carolina Teacher Academy
What are the expectations from the global digital community?

Academic Achievement accelerates when 21st Century Learning Communities focus on

– Digital-Age Literacy
– Inventive Thinking
– Effective Communication
– High Productivity

enGauge 21st Century Skills

Which one describes your classroom or school?

20th Century Classrooms

21st Century Classrooms
### Which one describes your classroom or school?

<table>
<thead>
<tr>
<th>20th Century Classrooms</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Time-based</strong></td>
<td><strong>Outcome-base</strong></td>
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<tr>
<td>Focus: memorization of discrete facts</td>
<td>Focus: what students Know, Can Do and Are Like after all the details are forgotten</td>
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<tr>
<td>Lessons focus on the lower level of Bloom’s Taxonomy – knowledge, comprehension and application</td>
<td>Learning is designed on upper levels of Blooms’ – synthesis, analysis and evaluation (and include lower levels as curriculum is designed down from the top)</td>
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<tr>
<td>Textbook-driven</td>
<td>Research-driven</td>
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<td>Passive learning</td>
<td>Active Learning</td>
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<td>Learners work in isolation – classroom within 4 walls</td>
<td>Learners work collaboratively with classmates and others around the world – the Global Classroom</td>
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<tr>
<td>Teacher-centered: teacher is center of attention and provider of information</td>
<td>Student-centered: teacher is facilitator/coach</td>
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<tr>
<td>Fragmented curriculum</td>
<td>Integrated and Interdisciplinary curriculum</td>
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<tr>
<td>Teacher is judge, no one else sees student work</td>
<td>Self, Peer and Authentic assessments</td>
</tr>
<tr>
<td>Curriculum/School is irrelevant and meaningless to the students</td>
<td>Curriculum is connected to students’ interests, experiences, talents and the real world.</td>
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<tr>
<td>Print is the primary vehicle of learning and assessment</td>
<td>Performances, projects and multiple forms of media are used for learning and assessment</td>
</tr>
<tr>
<td>Diversity in students is ignored</td>
<td>Curriculum and instruction address student diversity</td>
</tr>
<tr>
<td>Literacy is the 3 R’s – reading, writing and math</td>
<td>Multiple literacies of the 21st century – aligned to living and working in a globalized new millennium</td>
</tr>
<tr>
<td>Factory model, based upon the needs of employers for the Industrial Age of the 19th century. Scientific management</td>
<td>Driven by the NCLB and standardized testing mania.</td>
</tr>
</tbody>
</table>
In the 21st century classroom students have access to rich information and global communication where teachers support, facilitate, encourage, and collaborate with their students.

We see technology.
He sees information.
Who are 21st Century Learners?

“Schools are struggling to keep pace with the astonishing rate of change in students’ lives outside of school.”

Who are 21st Century Learners?

“Today’s education system faces irrelevance unless we bridge the gap between how students live and how they learn.”
Students use technology in every facet of their lives, therefore the instructional day should incorporate that same technology seamlessly into the curriculum.
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<tr>
<td><strong>Number of Jobs Held</strong></td>
<td>From 1-3</td>
<td>From 7-9 or More</td>
</tr>
<tr>
<td><strong>Job Requirement</strong></td>
<td>Mastery of one field or content area</td>
<td>Flexibility, Adaptability and Ability to Learn</td>
</tr>
<tr>
<td><strong>Main Teaching Model</strong></td>
<td>Generally Single Subject-Matter Mastery</td>
<td>Integration of 21st Century Skills into Multiple Subject-Matter Mastery</td>
</tr>
</tbody>
</table>
enGauge 21st Century Skills

Academic Achievement

Digital-Age Literacy
- Basic, Scientific, Economic, and Technological Literacies
- Visual and Information Literacies
- Multicultural Literacy and Global Awareness

Inventive Thinking
- Adaptability, Managing Complexity, and Self-Direction
- Curiosity, Creativity, and Risk Taking
- Higher-Order Thinking and Sound Reasoning

21st Century Learning

Effective Communication
- Teaming, Collaboration, and Interpersonal Skills
- Personal, Social, and Civic Responsibility
- Interactive Communication

High Productivity
- Prioritizing, Planning, and Managing for Results
- Effective Use of Real-World Tools
- Ability to Produce Relevant, High-Quality Products

Academic Achievement

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Digital – Age Literacy

Skill set includes:

– Basic language literacy

– Decision making

– Weighing costs & benefits, pros & cons, rewards & consequences

– Embrace modern media to think, decide, and communicate thoughts & ideas

– Appreciate the similarities and differences in other cultures
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Inventive Thinking - Skill Set

• Ability to encounter difficulties and road blocks and work around them
• Willing to take risks in order to solve a problem
• Curiosity
• Sound Reasoning allows students to defend and evaluate their work
Who’s Coming to Dinner?

Each student invites 3 people to attend dinner with them (either alive or dead)

• A local business leader
• A multinational business executive
• A national politician
• Brainstorm possible guests
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Effective Communication - Skill Set

- Cooperative interaction – work with each to solve problems
- Manage one’s own emotions & behaviors
- Ethical work habits
- Application of ethics to real life scenarios
- Use technology to serve the good of society
- Use of contemporary tools and processes such as blogs & podcasts
“Although collaborative learning has been a buzzword in American education for some time now, the Read/Write Web opens up all sorts of new possibilities for students to learn from each other or from authors or scientists or other professionals who can now work side by side in digital space even though they may be far away from one another physically.”

Will Richardson (2008) Blogs, Wikis, Podcasts
Skype is...

A Phone

A Conference Room

A Video Camera

A File Share

An Address Book

A Remote Desktop

North Carolina Teacher Academy 2008
The experts say...

“Your voice can be heard anywhere in the world, your face seen anywhere...at virtually no cost. It can be big and scary, but it doesn’t have to be.”

-Jim Moulton

“I think that one of the best uses is connecting to experts (parents) who are local but too busy to come in.”

-David Warlick
Skype Virtual Guest Speakers and Collaboration wiki

3rd January 2009

posted in distributed-learning, web 2.0 |

A few weeks before Christmas, I watched and blogged Dr. Z’s (Leigh Zeitz) webinar for ISTE on web 2.0 tools. Dr. Z mentioned Skype as a videoconferencing tool in the classroom, which can be used to bring in virtual guest speakers. I asked him during the webinar if he knew of any online directories for K-12 teachers to use wanting guest speakers, similar to the MERLOT Virtual Speaker’s Bureau for higher education. He said at the time he didn’t know of any, but would check. I blogged about using MERLOT to find virtual guest speakers back in September, and Rod Lucier started soliciting entries for a K-12 speaker’s directory on December 1st.

Today, via a tweeted reference to a recommendation from Angela Maiers, Dr. Z let me know about the Skype in Schools wiki.

The wiki has a directory, a want-ads page, and an experiences page for educators to share brief stories about their virtual guest speaker experiences with Skype in the classroom to date.

Many thanks to Dr. Z and Angela for sharing this link, and Dan Froelich for creating it!
How do I get started?

• Download Skype for your operating system

• Install the software
What does Skype do for Free?

- PC to PC calls
- Video Calls
- Conference Calls
- Group Chat Rooms
- Instant Messaging
- Send files
- Share Contacts
- Google Toolbar* (optional)
Some Educational Ideas

• Support ESL students and foreign language learning
• Foreign language studies
• Pen pals of the 21st century
• Cross cultural exchanges
• Homework helper
• Real conversations with real experts
• Collaboration without boundaries
• Live concerts with students from other cultures
• Professional development anywhere, anytime
• Virtual Substitute – Monitor your class.
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High-Productivity - Skill Set

• Ability to organize and prioritize tasks
• Use of real-world tools to complete tasks.
• Produce products that are authentic and useful.
• Use of communication in a variety of media formats including print, video, the web, and verbal presentation.
Allow Cell Phones?

• 76% of secondary students have them
• Students won’t leave home without them
• A vital skill in the current/ future workforce
• Students want to learn anytime, anywhere
• Little to no cost to schools
• Without boundaries
• Turning a social toy into a learning tool
• Teach students cell phone etiquette
• Go global
Poll Everywhere

Turn cell phones into education tools
New Program Offerings

Mathematics & Science

Media Literacy
New Program Offerings

Using Technology with Classroom Strategies that Work

21st Century Classrooms

Web 2.0
Want green copies?

All of the North Carolina Teacher Academy presentations can be downloaded at the following location:

http://ncteacheracademy.pbwiki.com

For questions about this presentation or the North Carolina Teacher Academy:
www.teacheracademy.org