Digital and DAP: What ECE Faculty, Administrators and Trainers Need to Know to Help Teachers Use Technology

Karen Nemeth, Ed.M.
Fran Simon, M.Ed.

#ECEtech
December 12, 2012
About us

Karen Nemeth, Ed.M.

Fran Simon, M.Ed.

Many Languages, Building Connections
Supporting English Learners in Multilingual Classrooms

Many Languages, One Classroom
Supporting English Learners in Multilingual Classrooms

ECEtech.net

Digital Decisions
Changing Early Learning Technology's Role in Early Childhood Education
Based on...
Presented to...

- 25% Faculty
- 25% PD providers or consultants
- 25% Early/primary programs Administrators
- 10% Tech coordinators
- A smattering of researchers, policy

Designed for the intended audience.
Agenda

Foundation: Guidance
- NAEYC Position Statement
- DAP and common sense

Practical Considerations
- Tools
- Evaluation
- Decisions

Implications for teaching teachers
- Practical solutions
- Ideas
- Resources
Do your classes look like this?

-OR-

Do they look like this?

Are you prepared to prepare teachers?
It is not about the technology.

This is about teaching teachers to be intentional and DAP in a digital World.
Early educators do not have to use technology. Your job is to offer guidance to help teachers make decisions about if, how, and when to use it, and...
If they do decide to use tech--
Your task is to prepare teachers to align it with DAP

- Using a variety of tools
- In various settings
- For all domains and content
- To support their work
- To connect with families
- For ongoing PD and networking
Poll
Where does technology fit in your teacher education efforts?
Poll

Your concerns about technology?
NAEYC/FRC Joint Position Statement on Technology in ECE CLASSROOMS

http://www.naeyc.org/content/technology-and-young-children

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Poll
What do you know about the NAEYC /Fred Rogers Center Position Statement on Technology in ECE?
Technology should enhance, not replace:
- creative play
- exploration
- physical activity
- outdoor experiences
- conversation, and
- social interactions
This is not rocket science

It is developmentally appropriate practice...applied to concepts and practices using technology.
A Tech tool is:
Just another material in the ECE toolkit.
Time limits: Guidelines and expectations must be based on variables like age, objectives, and type of interaction.
<table>
<thead>
<tr>
<th>Type of Experience</th>
<th>Approximate Length of Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laptime co-viewing</td>
<td>No more than 10 minutes for infants and toddlers, and up to 20 minutes for older children</td>
</tr>
<tr>
<td>One child alone or up to three children in a group with an adult close by, if not directly involved</td>
<td>No more than 20 minutes</td>
</tr>
<tr>
<td>Teacher-directed activities (group time, small-group time)</td>
<td>No limit—as long as interest is sustained and learning is evident</td>
</tr>
<tr>
<td>Child-initiated activities (free play, choice time) using open-ended, creative tools</td>
<td>No more than 20 minutes</td>
</tr>
<tr>
<td>Child-initiated activities (free play, choice time) using commercially available software, apps, or websites that are skill or concept oriented</td>
<td>No more than 20 minutes</td>
</tr>
</tbody>
</table>
Investments in technology tools are wasted without investments in professional development and research.
Practical Considerations for teacher educators
“Preservice and professional development should include in-depth, hands-on technology experiences, ongoing support, and access to the latest technology and interactive media.”
New Research and Reports:

*Giving our Children a Fighting Chance: Poverty, Literacy and the Development of Information Capital*

S. Neuman & D. Celano


*Pioneering Literacy in the Digital Wild West: Empowering Parents and Educators*

By Lisa Guernsey, Michael Levine, Cynthia Chiong and Maggie Severns

N = 685
384 teachers
156 administrators
Use technology
The Teachers’ Role in guiding instruction with technology

Question: When using these technologies with the children in your class, which type of activities are most likely to be happening?

Responses:

- Teacher Directed
- Child Directed
- Child Directed with Teacher Guidance
- Child Directed

<table>
<thead>
<tr>
<th>Devices</th>
<th>Tablets</th>
<th>Desktops/Laptops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Directed</td>
<td>69%</td>
<td>77%</td>
</tr>
<tr>
<td>Child Directed</td>
<td>26%</td>
<td>16%</td>
</tr>
<tr>
<td>Child Directed w/ Teacher Guidance</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Child Directed</td>
<td>37%</td>
<td>21%</td>
</tr>
<tr>
<td>Multi-Touch Tables</td>
<td>56%</td>
<td>36%</td>
</tr>
<tr>
<td>Hand-Held Devices</td>
<td>36%</td>
<td>21%</td>
</tr>
</tbody>
</table>
Interactive white boards

Laptops

iPads, tablets, and Smartphones

Multitouch tables
• Plan technology use as just another option like books, crayons, blocks etc.

• Examine the learning objectives and make choices that fit the curriculum

• Consider balance for each child and the group
Decisions about using technology: Basic pedagogical decisions

- What are the objectives?
- Does it extend other activities?
- Is it interactive?
- Is the interaction meaningful?
- Does it fit in with the project/study?
- What is the teacher’s role?
- Is this tool the best tool for the purpose?
Decisions about using technology: Balance

- Large group, small group, or for individual children?
- Teacher-directed or child-initiated activities?
- Open-ended or skill-focused?
- Short periods of time or deeper exploration?
# The Commonsense Approach to Developmentally Appropriate Evaluation of Software, Websites, and Apps Developed for Young Children

<table>
<thead>
<tr>
<th>ALL Software, Websites, and Apps MUST...</th>
<th>SOME Software, Websites, and Apps SHOULD...</th>
<th>Specifically</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be age appropriate</td>
<td></td>
<td>The activities challenge children without frustrating them and are built upon a sound understanding of the abilities of the suggested age range.</td>
</tr>
<tr>
<td>allow children to control navigation or the paths they take through the experience</td>
<td></td>
<td>The software responds to the child's on-screen decisions and clicks by allowing a different outcome or path through the experience. Children can move from task to task without adult assistance.</td>
</tr>
<tr>
<td>Provide clear on-screen instructions and prompts</td>
<td></td>
<td>For preliterate children, provide verbal instructions or sounds that are prompts. All on-screen written instructions for emerging readers are written simply and clearly and on grade level.</td>
</tr>
<tr>
<td>Offer expanding complexity</td>
<td></td>
<td>Some apps are designed specifically to do one thing and one thing only. Apps for a multi-touch device are often single task. There are some online experiences that offer more complex activities and tasks along with less complex applications.</td>
</tr>
<tr>
<td>Allow children to use the software with or without adult guidance</td>
<td></td>
<td>Children should be able to initiate and use the software or website independently.</td>
</tr>
</tbody>
</table>
Make it as natural as possible:
Put technology throughout the room
QR Codes

• “Quick-Response codes”
• Similar to barcodes that can be read using cameras on mobile devices and a QR code reader
• Link to websites, documents, photos, videos, or other information stored on the Internet or other network database.

Opportunities to foster relationships with children and adults
Make sure adults are available to support learning
Opportunities for Autonomy
Integrate technology throughout choices
Integrate technology throughout the day
Integrate technology throughout special events
Integrate technology when children go home
Ask your child to run as fast as a racehorse!

Ready!

Pictures Left: 3
So, Vivi and the monkey RAN away as fast as they could!
Set up internal & external support networks
# ECE Tech Resources

<table>
<thead>
<tr>
<th>NAEYC/FRC Technology Position Statement</th>
<th>TEC Center at Erikson Institute</th>
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<tr>
<td><a href="http://www.naeyc.org/content/technology-and-young-children">http://www.naeyc.org/content/technology-and-young-children</a></td>
<td><a href="http://teccenter.erikson.edu">http://teccenter.erikson.edu</a></td>
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</tbody>
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<tr>
<th>Fred Rogers Center for Early Learning and Children’s Media</th>
<th>National Association for Media Literacy Education</th>
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<tr>
<th>CommonSense Media</th>
<th>Joan Ganz Cooney Center</th>
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</thead>
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<tr>
<th>Early Childhood Tech Network</th>
<th>NAEYC Technology and Young Children Interest Forum</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://ecetech.net">http://ecetech.net</a></td>
<td><a href="http://www.techandyoungchildren.org">http://www.techandyoungchildren.org</a></td>
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<th>Children’s Technology Review</th>
<th>Brian Puerling</th>
</tr>
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<tr>
<th>Gail Lovely: Suddenly It Clicks</th>
<th>Early Education and Technology Conference</th>
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</table>
“WHAT ARE THE BEST APPS?”
We could tell you, but we won’t

There are hundreds (and growing) of “best apps” lists and matrices to evaluate, but knowing how to evaluate is the best skill teachers can learn.
Bad news – most Early Learning apps, Websites, and software...

• have moderate entertainment
• have low production value
• have low educational value
• are redundant
• are rote/skill based

according to Simon & Nemeth
The “best” app is the one that fits:

• The (planned or emergent) objectives
• The (special) needs of the learner(s)
• The setting

And, of course, it must meet standards of quality...
Software, apps, websites designed for children
Usability and instructional design

Is the software:

- Flashy, distracting, overwhelming or just enough appealing graphics and sounds to engage, but not distract?
- Free of ads or enticements for children?
- Deemed safe by trusted resources?
- Easy for children to navigate independently?
- Provide feedback to guide children?
- Interactive with meaning or just fun?
Fran’s Formula: Balance between teacher-directed and child-initiated
(Take it or leave it)

80% / 20%

...But, really, it depends on the formal approach or philosophy AND the curriculum being implemented
What can you do with...

Cookie Doodle?
MyStory?
Implications
For teaching teachers
# Digital Literacy Basic Skills Self-Assessment

<table>
<thead>
<tr>
<th>I. Hardware and Software Skills</th>
<th>Got It</th>
<th>Need to Learn</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can log on, log off, open, use, and close programs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I understand and use the functions of the mouse and/or touch pad.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I know what an icon is and what to do with it.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I know how to drag icons and files.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I know how to open up multiple programs at a time and move quickly between them.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I know how to use the on-screen help offered in most programs and applications.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I know how to download and install programs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I know how to search for a file on my computer.</td>
<td></td>
<td></td>
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Top Tips for Teacher Educators
If you teach a technology class or workshop

Teach students/teachers:
– how to use tech with children to create and consume
– to make decisions based on DAP, common sense, and indicators of quality
– using examples of best practice

• High quality applications designed for children
• Research & creation software that may/may not be designed for children
• Communication tools

• Give them time and reason to explore
• Ensure they have the tools they need for hands-on learning
Top Tips for Teacher Educators
If you teach a methods or general education class

Expect students/teachers to:
• use technology to complete their coursework
• complete real life assignments whenever possible
• Share their knowledge

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