Integrating Educational Technology for Early Childhood
Technology & Young Children

Tracey Roden
Children’s Media Use in America

• Among families with 0- to 8-year-olds 40% own a digital tablet device.

• Three-quarters (75%) now have access one of the newer mobile devices – smartphones, iPods, iPad or tablet device.

• Seventy-two percent (72%) of children age 8 and under have used a mobile device for some type of media activity – up from 38% in 2011.

• Thirty-eight percent (38%) of children under have used a mobile device for media.

Rideout, Common Sense Media, 2013
Technology & Interactive Media

–Here to Stay

• Young children live in a world of interactive media.

• They are at ease with digital devices.

• Digital tools are rapidly becoming the culture at home.

Couse & Chen, 2010
Technology & Interactive Media
—Here to Stay

• Technology tools as a form of communication have transformed mainstream culture.

• Technology tools have transformed how parents manage their daily lives, seek entertainment.

• Technology tools have transformed how teachers use materials with young children & communicate with parents.

Foundation for Excellence in Education, 2010
New Views on “Screen Time”

- Historically, “appropriate” technology has been defined by amount of time spent using technology or “screen time”.

- American Academy of Pediatrics (AAP) recommends that screen time be limited to 2 hours for children over 2.

- Digital technology has expanded in scope of non-interactive media.

- Educators now have access to mobile and developmentally appropriate content.

- All screens are no longer created equal.
What Research Says About Technology as a Literacy Learning Tool?

• When educators are intentional & selective in its use, technology can enhance early childhood education (Yelland 2005, NAEYC & Fred Rogers Center 2012).

• Preschool children learn to use the devices quickly, independently, & confidently (Couse & Chen 2010).

• “Compared to more traditional activities...the computer elicits more social interaction and different types of interaction.” (Clements, Nastasi & Swaminathan, 1993)
What Research Says About Technology as a Literacy Learning Tool?

• Research on newer technologies & apps has yet to catch up with their availability to children, but there are some promising indications...

• A study with iPod touch devices & PBS-created content for ages 3 to 7 found that children made gains in vocabulary & phonological awareness, with children ages 3 to 5 making the most gains (Choing & Shuler, 2010).

• Recent study of kindergarteners randomly assigned to iPad use for literacy focus found that children using tablet had greater gains than those who did not...and strong effects in phonemic awareness & letter/sound representation (Bebell, Dorris & Muir, 2012).
Touch Tablet Technology & Ease of Use

• Tablets print-based interfaces possess several features that may facilitate the development of emergent literacy skills.

• Tablets provide an easier to use and more intuitive interface for a young child (McManis and Gunnewig, 2012).

• Children can lie down with tablets, use in a variety of environments, put beside favorite toys.

• Allow collaboration between children during play.

• Make use of interactive multimedia displays... stimulate visual, auditory, tactile, kinesthetic sensory systems.
Touch Tablet Technology & Apps

• Hirsch & Blanchard (2009) reported that only a few high quality apps exist that are specifically designed to promote early literacy and math skills.

• Intent of content should be clear – to educate, introduce new information, develop particular skills or entertain.

• Context of use should take into consideration value-added of product features and cost

• Should be interactive – not passive

• Engaging in content & context

• USED INTENTIONALLY!!!!!
Technology as Play

• Traditional activities are now complemented with new technologies.

• Must embrace what is real in children’s homes & environments.

• Just as traditional play – includes interaction with peers & adults.
Teacher Preparation

- Use of technology should fit well with the goals of the program/school.
- Technology adoption should support formal training & informal support.
- Time should be built in for collaboration around technology & “play time.”
- Should ultimately become a part of formal planning.
Connection with Early Learning Standards

Technology is a tool: it is neither good nor BAD. It depends on how it is used.


National Association for the Education of Young Children & Fred Rogers Center for Early Learning and Children’s Media. *Technology and interactive media as tools in early childhood programs serving children from birth through age 8*.


Young Children and Istation

Clarissa Plair, Ph.D.
September 22, 2016
What is Istation?

• Award-winning, comprehensive, elearning program serving over 4 million children
• Compatible with iPad, Chromebook, PC and Mac
• Strongly correlated to State Standards
• Istation is playful for children, purposeful instruction and powerful for adults and children
Istation is PLAYFUL...

- Interactive, engaging age-appropriate content
- Award winning animation
- Children interact with teaching assistants
- Program includes songs and games, reading and writing
Istation is PURPOSEFUL...

- Intentional and developmentally appropriate
- Offers opportunities for blended learning
- Thoughtful, deliberate teaching and practice
- Computer adaptive curriculum
- Standards and research-based
Istation is POWERFUL...

For students
• Results maximize student growth
• Develops academic skills in reading

For teachers
• Personalized data profiles
• Real-time Reports
• Teacher Tools
Istation Supports Blended Learning
Summary Report

After ISIP, students are automatically classified by tiers.

Individual students are broken out here.

Scroll over the data for a more in-depth look.
### Priority Report

**Priority**

for 1st Grade - 46

at Thomas Jefferson Elementary – 2012/2013 School Year

#### Overview of current groups for this class:

- ISIP Early Reading: Letter Knowledge (4 students)
- ISIP Early Reading: Phonemic Awareness (8 students)
- ISIP Early Reading: Sounding; Decoding (15 students)
- ISIP Early Reading: Comprehension (10 students)
- ISIP Early Reading: Text Fluency (6 students)
- ISIP Early Reading: Vocabulary (10 students)
- ISIP Early Reading: Reading (6 students)
- Cycle 4 Read with Fluency (1 student)

#### Critical Intervention

3 students have been identified as below the 12th percentile and in need of critical intervention.

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<tr>
<th>ISIP Early Reading: Letter Knowledge (LK) Group</th>
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<td><strong>Recommended Teacher Directed Lesson:</strong></td>
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<tr>
<td><strong>Letter Knowledge</strong></td>
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<tr>
<td>Students in this Group</td>
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<tr>
<td>Amber [M]</td>
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<td>Abigail [M]</td>
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<td>Alejandro [M]</td>
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Questions?