

Touch AND Grow

Learning and Exploring Using Tablets

Bonnie Blagojevic, Hillary Brumer, Sue Chevalier, Audrey O'Clair, and Karen Thomes

Young children are increasingly using tablets (as well as smartphones and other devices with touch screens) in early education settings and with family members. This raises important questions, such as when and how these devices can be used with young children.

Tammy and Rose, age 4, have been studying sunflowers with their class-

mates. They want to sing and record a song about sunflowers while creating a drawing, using an application (app) on the tablet. The girls problem solve to coordinate their efforts and are thrilled with the result. They repeatedly share their production with other children and adults in their rural Head Start/public pre-K/early intervention classroom.

Intentional choices: Selecting the right tool for the task

Whether choosing a traditional or a new tool, such as a tablet, teachers need a clear understanding of

- how the tool can meet identified educational and life goals for a child or for a group of children;
- the functions of various tools;
- how to monitor children's engagement and progress, and adjust tasks accordingly; and
- the children's interests and preferences—individually and as a group.

To help the class learn more about sunflowers, Kathryn, Tammy and Rose's teacher, used the tablet to find online sites with photos and facts. She then took the children on a virtual tour of Van Gogh's sunflower paintings. They read and discussed an electronic picture book about Van Gogh's life. The children had already examined real sunflowers and their parts, made sketches, read informational texts and stories, counted seeds, and participated in a variety of investigations touching on every learning domain. The teacher's use of the tablet alongside hands-on early learning activities expanded the children's horizons. Activities offered on the tablet provided new ways for the children to represent and share what they learned.



PHOTOS © BONNIE BLAGOJEVIC

Using the tablet: Extending learning

Nadia cares for six toddlers and preschoolers in her family child care program. At story time, she reads aloud a board book. She and the children discuss action words from the story, such as *bow* and *twirl*, review the words, and act out the motions. Later, Nadia and the children look at and listen to the e-book version of the same story on a tablet. While Nadia prepares lunch, three children take turns touching particular words on the screen to hear them read aloud or using their fingers to cause a character to bow or twirl. The e-book animations add playful actions that support the story line and inspire additional discussion. They also offer visual support for the action words.



Tool and app selection is important

- Research features and types of tablets and apps to determine the best match for daily use with children and by adults.
- Explore the entire app. Are all activity choices appropriate, and do they enhance children's daily learning experiences?
- Look for apps that allow for audio and photo input. They can be culturally sensitive if they allow children to input images and audio that reflect their own culture.
- Consider the feedback options. In some apps a feedback option tells children immediately whether their choice is correct. Apps that decrease the number of available answer choices may help motivate a child who is struggling.

Using tablets for documentation

As the only adult in her program, Nadia uses technology to help her document children's activities and experiences. This allows her to communicate with families and meet accreditation requirements for documentation needed to maintain state licensing and National Association for Family Child Care accreditation. Using the video feature on her tablet, she records Colin, age 2, for two minutes, as he tries to get a baby doll to stay in a toy high chair while putting on the tray.

Nadia later reviews the video on the tablet and dictates comments about Colin's persistence in problem solving into an app on her smartphone that transcribes words into text. Nadia can share the video clips and notes with family members via e-mail. The videos allow families to observe their child, while the notes explain Nadia's interpretation of what is going on and how she will use this information to plan new learning activities.

SUPPORTING DUAL LANGUAGE LEARNERS

One of the benefits of including tablets in your program is they can put language supports at your fingertips. Find translation apps for the home languages spoken by the children in your group. You will be able to find key words in the languages of dual language learners so they can understand the concepts being explored. Find nonverbal supports like pictures and video clips. Use them to make concepts understandable for dual language learners at the moment learning is happening.

Introducing tablets to children

Consider how to introduce the tablet and apps.

- Lead a discussion with children in small or large groups or individually, whichever is most appropriate.
- Use accurate language and words when naming the device and its parts and demonstrating how it works.
- Discuss careful and respectful use of the tool. Create and review poems, chants, and songs about rules and routines as needed to help children remember them.
- Schedule individual support time, practice with a peer, and extra time to explore for children with differing abilities or limited prior experience.

Managing tablet use

Strategies for ensuring safe and effective use of tablets vary depending on the number available and the educational setting. Some considerations to keep in mind:

- Plan how to set up the device (as you would for other kinds of learning). Think about the number of apps and how to organize and display them.

- Promote social interaction by planning pairs or small group activities that lead to peer mentoring, collaboration, and problem solving.
- Help children wait their turn by offering a sign-up list, if appropriate.
- Ensure balance between child choice and teacher choice.
- Carefully monitor the amount of time children are engaged with tablets and how they are using them.
- Remember—more isn't necessarily better. Helping children become thoroughly familiar with a few intentionally selected apps is a good way to start.



Increasing access to learning

Tablets can personalize learning for diverse learners, including dual language learners. The devices can help them learn new skills and become familiar with routines and activities.

- Yiannis is anxious about riding the bus to school, but he is unable to express his thoughts or ask for help in English. His teacher realizes a personal story can help and uses the tablet to take and combine recorded phrases with photos of Yiannis, the bus, and the bus driver. Yiannis then learns what to expect in the morning and how to ask for help.
- At lunchtime, Maryam does not know the names of unfamiliar foods and cannot ask for or discuss them. Using an app with pictures of food, however, she can look at the food item, listen to the English pronunciation of its name, and record herself repeating it. Through this she gains confidence and learns new vocabulary.
- For children with minimal exposure to technology or limited English proficiency, the tablet can help increase comprehension and vocabulary. For example, a teacher can show a photo of a giraffe, explain what a giraffe is, share a video clip of it in its natural habitat, and further explore the topic through educational activity apps.

Assessing understanding

Teachers and administrators can use tablets to evaluate and document learning.

- Teachers can save children's drawings, writing samples, language samples, or media projects, which are created and automatically dated on the tablet, showing progress over time.
- Some apps can track and record an individual child's activity. Based on learning goals, choose apps that can track children's progress.
- When observing children using different apps, such as educational game apps to practice counting, reading with e-books, or creating art, teachers might note something new about their abilities. This information could impact future teaching strategies.
- Digital documentation forms can streamline the data collection process. Forms can include drop down boxes with a number of prepared comments, such as *knows the difference between living and nonliving things*. They are easy to complete and e-mail. In addition, the information is automatically entered into a database the teacher has set up.

Looking for apps? Check out

- App review sites.
- App price-drop notification services.
- App product descriptions. Read them thoroughly and look at the screen shots.
- "Lite" or free versions of apps that offer free trials.
- Recommendations from other users (online or in person).

Consider these questions when evaluating apps

- Is the app easy to use and engaging?
- Does the app connect with and support learning goals?
- Does the app offer levels of difficulty or custom settings?
- Is available feedback corrective and appropriate, rather than negative or loud?
- Are there options to track children's progress?
- Is the information accurate? (For example: do phonics apps speak the letter sounds correctly?)

Add tablets to the toolbox

The unique qualities of tablets can be used to help diverse learners, including children with disabilities. Caleb, who has cerebral palsy, lacks the motor skills to play with blocks, but he can stack digital blocks using an app on a tablet. While the goal remains to use real-world materials, the tablet offers Caleb valuable play experiences not possible before. Pia, a child with autism, cannot tell her parents about her day. Her teacher e-mails photos and videos of the various learning activities throughout her day that she is engaged in. After seeing Pia use a tablet in the classroom, her parent remarked, "I was not originally sold on the tablet idea. In fact, I was highly resistant to it until I saw what it could do for my child. Now I am a believer."

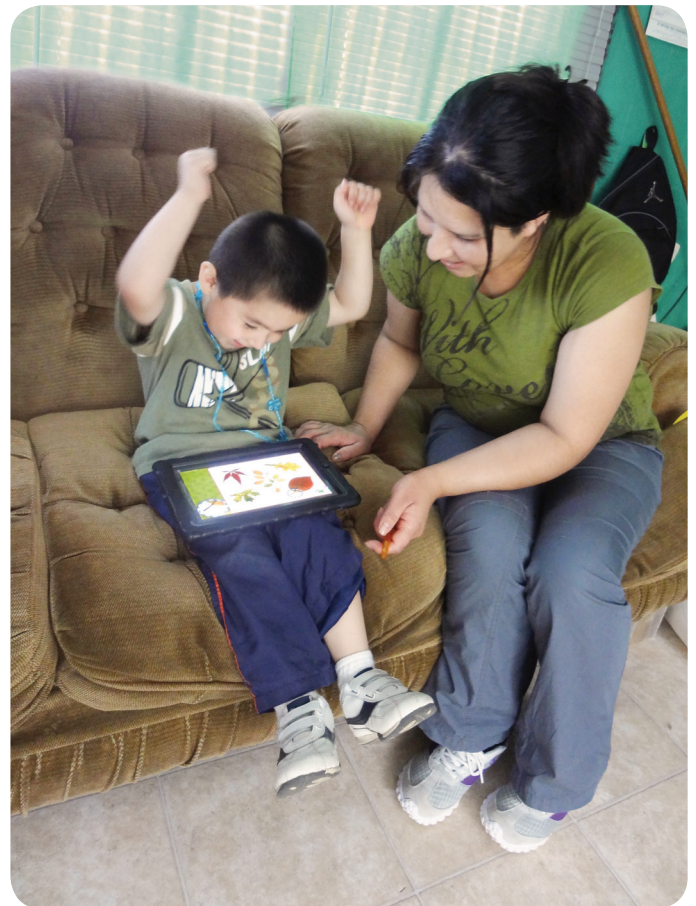
Tablets have the potential to be powerful tools for early learning. The choices we make about how they are used determine whether the technology is helpful or not. We need to develop "digital literacy" skills and decide how to use these new tools in ways that can support every child's healthy development and learning.

Resources about tablets and technology tools:

- Colorado Department of Education. "Results Matter?" Video project. www.cde.state.co.us/resultsmatter/RMVideoSeries_iPadsInEarlyChildhood.htm
- NAEYC Technology and Young Children Interest Forum. www.techandyoungchildren.org
- Puerling, B. 2012. *Teaching in a Digital Age: Smart Tools for Age 3 to Grade 3*. St. Paul, MN: Redleaf.
- Shillady, A., & L. S. Muccio, eds. 2012. *Spotlight on Young Children and Technology*. Washington, DC: NAEYC.
- The TEC (Technology in Early Childhood) Center at Erikson Institute. <http://teccenter.erikson.edu>

To learn more, keep current, and support conversations with families:

- Review NAEYC's joint position statement with the Fred Rogers Center on technology and interactive media, which offers guidance on the use of technology with young children. www.naeyc.org/content/technology-and-young-children
- Participate in ongoing professional development in all areas of early learning, including technology integration.
- Track emerging research on the use of tablets with young children.
- Join professional networks in person and online.
- Take advantage of free webinars to learn from and with others.
- Learn from your colleagues! Share successes and lessons learned.



Families can guide children's technology use. Sign and make copies of the Message in a Backpack™ on page 22 to send home. It's also available online (in English and Spanish) at naeyc.org/tyc.