The New Guidelines on Screen Time for Preschool-Aged Children:
The Importance of Interaction in Early Language Acquisition

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What is “Screen Time”?

- “Screen Time” means all screen-based media

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV</td>
<td>Apps</td>
</tr>
<tr>
<td>Videos</td>
<td>Mobile devices</td>
</tr>
<tr>
<td>Tablets</td>
<td>Digital media</td>
</tr>
<tr>
<td>Smart phones</td>
<td>Touch screens</td>
</tr>
<tr>
<td>Video games</td>
<td>Computers</td>
</tr>
</tbody>
</table>
New Media: Benefits and Risks

Benefits

Research has suggested some possible benefits of screen time:

- Opportunities for some learning
- Exposure to new ideas
- Increased opportunities for contact and support
- Access to information

Risks

- Irregular sleep
- Obesity
- Depression
- Attention difficulties
- Exposure to inappropriate content
- Bullying
- Lower math and school achievement
- Language deficits
Media Use Estimates

- In 1970: children started to watch TV regularly at 4-years-old

- Today: digital media is introduced as young as 4-months-old


Children’s total screen time has increased drastically

- In 80s:
  - Average TV watching time per week: 15:44/week

- In 2009:
  - 31:20/week
  - PLUS
  - 8:30 playing video games
  - TOTAL SCREEN TIME
  - over 50 hours/week

Media Use Estimates

- In 2015
  - 0 to 4-year-olds:
    - 96% had access to mobile devices
    - 75% owned a mobile device
  - 1-year-olds: 92% had used a mobile device
    - Half of children under 1 used a mobile device daily
  - 2-year-olds: 76% used mobile devices daily

Kabali et al. (2015), Exposure and Use of Mobile Media Devices by Young Children

Ownership of Mobile Devices

In 2015
- Household tablet ownership has doubled since 2013
- Parents report that half or more of the apps they download are for their children.
- Most 3- and 4-year-olds were able to use mobile devices without help
  - And 1 out of 3 were media multitasking*
  - *In young adults and adults: Media multitasking has been associated with task inefficiency, lapses in attentiveness, and safety hazards

Kabali et al. (2015), Exposure and Use of Mobile Media Devices by Young Children

Media Use Estimates
Habit Forming

The more time children engage with screens, the harder time they have turning them off as they become older.

Circumstances In Which Parents Let Their Children Use Mobile Media

- To do chores (70%)
- Keep their child calm in public places (65%)
- To run errands (58%)
- To get their child to sleep (28%)

“This suggests that mobile devices are used as "digital pacifiers" to placate or distract children or as means to manage children's behavior.”

Educational?

- 56% of parents of young children believe that baby videos are good for child development.

  There are no known empirical studies to substantiate the educational efficacy of apps targeted toward young children.

  (Goodwin, K., & Hightﬁeld, K. (2012). Touch and Learn: An examination of educational apps.)
Apps are Big Business

- Over $10 Billion was spent in the Apple App Store in 2013 (Apple, 2014)
- In a 2012 analysis of educational apps, Schuler predicted this to triple to $38 Billion in 2015.
  - The actual number: $69.7 Billion
  - Predicted $88.3 billion in 2017 and $188.9 billion in 2020
    (Statistica, 2017)

How is increased time on digital media impacting our children?

HOW IS IT IMPACTING THEIR LANGUAGE DEVELOPMENT?

How do children learn language?

“Toddlers learn language in the context of meaningful interactions with those around them.”
(Stanford Report)
From birth, children communicate using sounds, actions, eye gaze, and facial expressions. Babies don’t realize that these sounds have meaning until caregivers consistently respond to them.

When an adult responds to a child’s message, the child responds back and an interaction has started. These back and forth interactions are the foundation for all of the child’s future conversations.
When children interact with others, they learn how to:

- **Initiate** interactions with another person
- **Respond** when another person initiates with them
- **Take a turn** at the appropriate time
- **Wait** for the other person to take a turn
- **Pay attention** to the speaker
- **Send messages**

**Impacts of Screen Time on Language Learning**

- **No evidence** that children can learn language from a screen under the age of 2

- Associations between infant television exposure and delayed language development
  - Less parent-child interactions*
  - Slower to learn vocabulary*
  - Less infant vocalizations and sounds*
  - Less adult words*
  - Inattentive/hyperactive behaviours

*Similar results found for background television and noisy toys.
The more time babies and preschool children spend with screens

The less time they spend:
- Engaged in creative play (the foundation of learning)
- Problem solving
- Creativity
- Interacting with parents
- Talking with parents (even with co-viewing)

Most recent findings...

Each additional 30 minutes of handheld screen time is linked to a 49% increased risk in expressive speech delay in children 6-24 months.


“Before 2 years of age, children are still developing cognitive, language, sensorimotor, and social-emotional skills, which require social interaction with trusted caregivers for successful maturation.”

(Y. Reid Chassiakos, J. Radesky, D. Christakis, M. A. Moreno, C. Cross. Children and Adolescents and Digital Media. PEDIATRICS, 2016; 138 (5))
INTERACTION

Adult Interaction is **CRUCIAL** to learning

Children learn faster and retain information better from a human interaction than from a video.

Patricia Kuhl, et al., 2003
Children exposed to Mandarin – Live Exposure

Early learning is easier, more enriching and developmentally more efficient when experienced live, interactively, and in real time and space, and with real people.

(Canadian Paediatric Society, 2017)
Are Touch Screens More Educational?

- Research is sparse
- Starting at 15-months-old, toddlers can learn new words, but they have trouble using this knowledge in the real world

Adult Interaction is CRUCIAL to learning from digital media (18-36 months)

- 12 to 24 months:
  - Toddlers learn some new words, but only if parents watch with them and re-teach the words.

- One study showed that 15-month-olds learned signs after watching a video 4 times a week. But kids with a book and parent retained more knowledge of the meaning of the signs and for a longer period of time.
What about “educational apps”? 

- Most apps show low educational potential and target only rote academic skills.
- Many apps claim to have educational benefits, but very few have proven to be educational.
- Many features of apps and e-books (e.g., bells, dings, etc.) may decrease a child’s comprehension and distract from attempted parent interaction.

But my child learned their ABC’s and 123’s from a screen! 

- These are simply memorized skills

Is this functional at 2? 

- Language is about interaction
  - Sharing ideas
  - Connecting
  - Having conversations
  - Answering questions
  - Fostering relationships and attachment*

Remember this slide? 

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- Initiate interactions with another person
- Respond when another person initiates with them
- Take a turn at the appropriate time
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Over 3 Years Old

- High quality programs such as Sesame Street can teach kids new ideas
- A few apps have been shown to promote literacy (PBS, Sesame Street) and math skills (Bedtime Math).
- All require interaction with others for true functional learning

• Consult Common Sense Media guide for high-quality media choices

Communication and conversation are learned through... INTERACTION with others

- These skills are essential to learning and social skills. Social skills should precede “scholastic” skills

Language cannot be learned from a screen

“Children need time to play, sleep, learn to handle emotions, and build relationships. Excessive media use can get in the way of these important activities.”

Jenny Radesky, M.D., co-author of AAP statement on media guidelines
Think of screen time like cookies

Parent Media Use is Also Getting in the Way

- Parents play an important role in modeling behavior
- More than 70% of adults use social media
- 27% feel “addicted”
- Research has shown that parents' TV viewing distracts from parent-child interactions

Parent Media Use (cont.)

- "Parent use of mobile devices is associated with fewer verbal and nonverbal interactions between parents and children." (Y. Reid Chassiakos, et. al., 2016)
- Media use is also associated with more parent-child conflict
“Because parent-child interactions are an important opportunity for emotional connection [...] and are the primary driver of early childhood development of language, cognition, social skills, and emotional regulation, it is important to preserve them.”

(Y. Reid Chassiakos, et. al., 2016)

What are the new guidelines?

For Parents of Children 0-5 years old

- Screen time for children under 2 years old is not recommended.
- For 2- to 5-year-olds:
  - Limit screen time to 1 hour/day of high-quality programming
  - Watch with your child and help them understand what they are seeing
Things to Avoid

• Avoid using media as a way to calm your child
  • This could lead to problems with their ability to regulate emotions.
• Test apps before your child uses them.
• Keep bedrooms, mealtimes and parent-child playtimes screen free.
  • Parents can set their phones to “do not disturb”
• No screen time 1 hour before bed

Things to Avoid (cont.)

• Avoid fast-paced programs and apps with lots of distracting content or violence
• Turn off TVs and other devices when not in use
• Do not feel pressured to introduce technology early
  • Devices are so intuitive that children figure them out quickly (there is no evidence to support introducing technology at an early age.)

Be Mindful

Model healthy screen habits.
  • Children should not have to compete with screens for parental attention.
Positive Ways to Use Media

- Video chatting with relatives
- Watching a movie together - Family movie night
- Taking pictures and watching home videos
- Searching for crafts, recipes, etc.
- Consult the American Academy of Pediatrics Family Media Use Plan

https://www.healthychildren.org/MediaUsePlan

REMEMBER

The most powerful “toy” your child can play with is YOU!

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