

Child Development 101

In order to effectively support media literacy skills in early childhood, it is critical to understand child development and how young children experience media. This section provides a brief background of child development relevant to media use at four selected stages: 0-2 years, 3-4 years, 5-6 years, and 7-8 years. This section seeks to provide a practical overview of child development from birth to age 8 within the context of media use.



Ages 0-2

Between the ages of birth and 2 years old, children are experiencing rapid brain growth, dramatic changes in physical development, and vast improvements in cognitive and language development. Throughout infancy, children are building their understanding of the world around them through their experiences. Prior to age 1, infant physical development is focused on large motor skills like sitting up, crawling and walking, and basic fine motor skills like pointing and pinching objects. Around age 1, children may have produced a few words (e.g., Momma, Dadda). By age 2, children produce 50-200 words and are using two and three word pairs to communicate. Parent interaction between the ages of 0 and 2 is critical for language comprehension and production. Between 18-24 months, children are able to identify images of themselves and familiar people. By this age, they also enjoy solitary play, begin communicating emotions and causes of emotions, and begin to demonstrate an awareness of others' points of view.

Media Use and Effects

While young infants are not initiating digital media use directly, infants are likely encountering a range of media throughout their day starting as early as birth. Ninety-eight percent of families with a child under the age of 8 own a mobile device (Rideout, 2017). Caregivers are regularly using digital cameras, mobile phones, and tablets to capture images and videos of their children and often show the child the resulting image on their digital device. Adults are regularly using media themselves, thereby modeling the use of these tools for children starting at birth.

Throughout infancy and toddlerhood, children are encountering print media (e.g., books), as well as digital media including music players, television/video, smart home voice assistants, tablets, smartphones, and others. Book reading (with adults reading and children responding) is especially important in infancy and toddlerhood (High & Klass, 2014) and has been shown to be associated with better language skills and increased interest in reading in later years (Payne, Whitehurst, & Angell, 1994). For very young children, understanding the content and messages from a screen can be very hard (Anderson & Pempek, 2008). Features like interactivity, familiar characters, verbal language cues, social contingency (such as a conversation with authentic responses that are contingent on each other), and repetition have been shown to support young children's ability to learn from screen media (e.g., Barr, Muentener, Garcia, Fujimoto, & Chávez, 2007; Barr & Wyss, 2008; Howard Gola, Richards, Lauricella, & Calvert, 2013; Lauricella, Howard, & Calvert, 2011; Roseberry, Hirsh-Pasek, & Golinkoff, 2014). Children under 3 years learn more from computers or interactive touchscreens when they receive contingent responses from the devices (Choi & Kirkorian, 2016; Lauricella, Pempek, Barr, & Calvert, 2010; Kirkorian, Choi, & Pempek, 2016).

Tips for Adults

- Recognize that these early interactions and experiences influence children’s media literacy skills. In infancy and toddlerhood, co-access, co-engagement, and co-viewing of media with young children is paramount to support young children in their mastery and understanding of basic media literacy skills.
- Encourage exploration of sensory materials and hands-on activities. For example, discuss with and model for children how picture books work by showing the cover, pointing out illustrations and turning the pages to support children’s comprehension of the media content and device.
- Play is learning; encourage exploration and discovery.
- Respond to and talk with the child about what you are doing together. Narrate what you’re doing when you engage with the child and ask questions out loud. Notice the child’s non-verbal communication (e.g., smiles, coos, etc) and use that as a moment to narrate.
- Recognize that toddlers’ signs, facial expressions, and the act of pointing are children’s ways of saying what they like and don’t like; this is the first stage of them engaging with and evaluating media.
- Acknowledge and encourage creations. Use language such as, “You did this! You are a painter.”
- Narrate and name the process of creation.
- Enhance social interaction with family members using face-to-face interactions in person and digitally.
- Recognize and reflect on your own media and technology use and how you are modeling use in front of your young children.
- Use media as a tool to support, enhance, and engage in communication, interaction, and inquiry with your very young children. For example, narrate

what you are doing when you go to your phone, “Look, sweet baby, I can use the phone to check the weather before we go outside to we know if it is warm or cold so we can wear the correct clothes to stay comfortable. And it will only take a moment!”



Ages 3-4

Between the ages of 3 through 4 years old, children’s cognitive development, language, and social emotional learning flourish as they enter preschool years. Preschool children still think very concretely about the world around them and struggle with abstract thought and abstract concepts including reality and fantasy distinctions which can make processing fictional storylines sometimes challenging. By the preschool years, they are understanding themselves and understanding those around them in more complex ways. For example, by 3 years old, children have a concrete sense of self such as name, physical attributes, gender, and abilities. Children around age 3 can identify some basic emotion words such as “happy”, “sad”, etc. and comprehend that there’s a connection between thoughts and emotions. During this time, children are also beginning to understand that other people experience thoughts and emotions that differ from their own. By 4 years old, children begin to understand that others can believe or know something contrary to what they know or understand, this is the beginning of theory of mind development.

Media Use and Effects

Preschoolers are frequent media users and since the creation of *Mister Rogers’ Neighborhood* and *Sesame Street*, preschoolers have been heavily researched with regard to media use

and media effects. Parents report that children ages 2 to 4 spend an average of 1 hour and nine minutes watching television, 58 minutes using a mobile device, 30 minutes reading/being read to print media (Rideout, 2017). Teachers are also incorporating digital media for educational purposes (Pila, S., Blackwell, C. K., Lauricella, A. R., & Wartella, E., 2019).

As children enter preschool years, their cognitive ability to process information improves from toddler years, allowing them to process information more efficiently. As a result, preschoolers can and do learn from high quality educational television programs (Anderson, Huston, Schmitt, Linebarger, Wright, 2001; Crawley, Anderson, Wilder, Williams, & Santomero, 1999; Fisch, Truglio, & Cole, 1999; Friedrich & Stein, 1975) and educational apps (Aladé, Lauricella, Beaudoin-Ryan, & Wartella, 2016; Huber et al., 2016; Schroeder & Kirkorian, 2016). Certain digital media programs, such as *Daniel Tiger's Neighborhood*, have been shown to support social emotional learning such as empathy, ability to recognize emotions, and confidence in social situations, but only when their caregiver talks with them about what's on television (Rasmussen, Shafer, Colwell, White, Punyanunt-Carter, Densley, & Wright, 2016). We are beginning to understand the role of interactive technology and games on preschoolers learning and are finding that while their ability to process information is better than toddler years, there may be some cognitive challenges of learning from a screen and interacting with it at the same time (Alade et al., 2016; Anderson & Davidson, 2019).

Tips for Adults

- Due to children's increase in media use in the preschool years and their cognitive development, children continue to benefit from facilitation and guidance by caregivers while using media.
- Children are beginning to understand their emotions so caregivers may focus on the child's body language and help them become aware of what media content makes them happy, sad, angry, and scared.
- Help children differentiate between reality and fantasy when engaging in media, especially when the media is frightening.
- Children are developing curiosities as they engage in print and digital media so caregivers can utilize media to document and follow their curiosities.
- Children may want to read or engage with media repeatedly. This is because they are processing the content and understanding more each time and their requests and choices to read books (or watching shows) over and over is an instance of them having some agency over their own learning.
- While children at this age are using print and digital media as tools to learn, it's important for adults to support their learning about the media. Help children learn and discover that media is constructed by somebody with an intentional purpose for an audience. This can be as simple as mentioning a book author's name and the fact that there are books for adults and books for children.
- Help guide children in accessing and making selections about what media to use. Provide conversations about the benefits and limitations of different media for different purposes.
- Allow and encourage preschoolers to explore and critically question the media they are using.



Ages 5-6

From 5 through 6 years old, children generally begin formal schooling. This means their weekdays are focused more on

academics while being surrounded by peers. During play, they're able to share and take turns most of the time, as well as work together to achieve a common goal such as building a tower. Their play is also more organized; children understand the rules of a game and may even alter the rules. By age 5, children are able to evaluate their own characteristics and accomplishments. Five- and 6-year-olds are beginning to be able to read others' emotions through their actions and facial expressions. Children are also learning new skills such as reading simple picture books on their own and writing simple sentences as well as mastering mathematical concepts.

Media Use and Effects

Children are engaging in media both at home and in the classroom. Children ages 5 to 8 spend a daily average of 2 hours and 56 minutes using screen media (Rideout, 2017), mainly split between television (1 hour and 4 minutes) and mobile device (1 hour and 2 minutes). Children ages 5 to 8 spend a daily average of 26 minutes reading and/or being read to print media (Rideout, 2017). Sixty percent of Kindergarten to 2nd grade teachers report teaching digital citizenship competencies (Vega & Robb, 2019). Children's cognition at these ages enables them to begin to understand more complex aspects of media including correctly labeling the type of message, such as news or a commercial for a product, and comprehending the message content of child-focused commercials and developmentally

appropriate educational content (Blosser & Roberts, 1985). Between ages 5 and 6, children should be able to tell short stories and write, creating their own media. Media impacts a child's attitudes regarding gender stereotypes (Signorielli, 2011), which is important to keep in mind as children are increasingly engaging in media as they grow older.

Tips for Adults

The adult's role becomes more focused on supporting children to understand abstract concepts such as narrative elements, media representation, and authorship.

- Provide children opportunities to reflect on and question media using concrete examples such as, "Do the children in this advertisement look like you or your friends? What toys are they playing with? What type of home do they live in?"
- Explain that every story has a teller and all media content has a maker. Discuss how media is created and that media are a portrayal or one view.
- Provide accurately representative media to combat the impact of media stereotypes on children's understanding of themselves and others and talk openly about the representation and lack of representation in media being used.
- Proactively use multiple types of media such as books, advertisements, and apps to foster conversations to explore cultural diversity.
- Ask children about the media they are using and assess their success at comprehending the storyline and messages. Just like reading literacy and reading comprehension can have a mismatch, children's media processing and comprehension may also not line up.



Ages 7-8

From age 7 through age 8, children are becoming increasingly independent as their cognitive abilities become more sophisticated. Children at this age are now aware that others have different thoughts than them. They are experiencing an increase in concentration, which is very helpful for school and participating in afterschool sports and groups. Children are beginning to develop moral rules and behavior, questioning fairness and equality. They are now able to look at situations from multiple perspectives and consider multiple solutions to problems. By age 8, children typically are able to read simple sentences and longer words. Confidence and belonging is critical during this age.

Media Use and Effects

As children develop their independence and cognitive abilities, their media use increases. Fifty-nine percent of children ages 5 to 8 years old have their own tablet and 7% of their own smartphone (Rideout, 2017). Young children from 5 through 8 years old play video games for an average of 42 minutes per day (Rideout, 2017) and 62% of children ages 8 to 12 report watching TV every day (Rideout, 2015). At 8 years old, children typically are reading to learn and for entertainment as they are reading with more ease. Children are not only using media differently but also understanding and being impacted by their increased media use.

During these ages, children are able to differentiate elements of stories such as the plot and the setting. The majority of children ages 7 and 8 years old can describe advertising intent (Carter, Patterson, Donovan, Ewing, & Roberts, 2011). After viewing clips of women in stereotypical careers, girls ages 6 to 9 years old report interest in stereotypical careers and are less likely to draw women as scientists than girls in a comparison group who viewed clips of women in science, technology, engineering, and math careers (Bond, 2016).

Tips for Adults

The adult's role for children ages 7 and 8 years old is as a facilitator and guide, allowing children to have more independence, more responsibilities, and more opportunities to collaborate with their peers. It's essential to support children as they become independent in their media engagement.

- Guide children in learning how to evaluate and decide what is “good” or “just right” media for them.
- Allow children to investigate and compare media.
- Take the time to discuss topics such as media representation and accuracy, privacy, and safety while using digital media sources.
- Give children control by encouraging them to act as media mentors by helping and teaching others how to engage with and choose media.
- Introduce tools that children can use to express themselves and create their own media.
- Support their creation of media by focusing less on the end product and focusing more on the process, effort, and intentions of the child.