Best Practices

Media and technology (videos, online games, educational children's television and web programs, applications or "apps," whiteboards, software, tablets, computers, and handheld devices, just to name a few) can be valuable tools in the learning environment. When used intentionally with children, these tools can help extend and support active, hands-on, creative, and authentic engagement—individually, with those around them, and beyond. Media and technology should be used to enhance the curriculum and can be integrated naturally into the learning environment. Today, educators will learn best practices that will help them integrate media and technology into their early learning curriculum. They will learn how to select media and technology carefully, strategies to help guide children's engagement, and ways to help children reflect and make connections between what they view and their own lives—in and out of the learning environment.

Select Media with Intention

As Professor Villegas-Reimers says in the overview video, "Technology today—it's everywhere. And the classroom environment needs to prepare the child to lead in today's world. So bringing media into the classroom in an intentional and controlled way is actually a good thing." Media and technology, when selected and used thoughtfully, are valuable tools educators can use to help support young children's social, emotional, physical and cognitive development.

- **Think about the learning goals**. Use media to enhance the existing curriculum or extend the reach of the teacher. What concepts and content do you want children to learn? What dispositions (e.g., motivation, engagement, attention, self-regulation) do you want to reinforce? How will the media and/or technology support these goals?

- **Preview and evaluate media and/or technology**. Make sure that the content is accurate, that it is developmentally appropriate for young children, and that it is related to the learning goals you have designed.

- **Select media and/or technology that will help children make connections to their peers or to their community**. (e.g., connecting by video chat or e-mail with children in a different area of the world or of the country, taking photos and posting on a classroom blog for families, etc.).

- **Plan ahead**. Consider screen time recommendations. A joint position statement of The National Association for the Education of Young Children (NAEYC) and the Fred Rogers Center for Early Learning and Children's Media at Saint Vincent College in 2012 recommends that children under the age of two have no screen time and that children ages two and older should have their screen time limited to one to two hours a day. (Screen time applies to all media and technology, both in and out of the learning

environment.) Identify media length and setting (e.g., whole segment or clip? home viewing or in class?) Practice with the equipment and cue up the relevant portions you will be viewing.

Why is it important to be intentional when selecting media?

- Media is an educational tool that can be useful in supporting and expanding children's learning, but is only effective when it is selected thoughtfully and intentionally and used appropriately. Educators should never use media or technology to replace active play, exploration, educator instruction, or interactions with other children.

What kinds of questions should educators ask themselves when selecting media?

- Will the media support the learning goals? (e.g., Does it enhance and extend the curriculum? Does it introduce or explain concepts? Will it get children excited about an activity they will be doing?) For example,

  o A unit of study on weather could be enhanced with an online game that teaches about rain, wind, thunder, and lightning, or with an exploration of a local weather map where children can see the radar screen.

  o A time-lapse video showing how a bean plant grows may improve children's understanding of plants and other living things.

- Will the media or technology expose children to things they cannot experience in person (e.g., animals, plants, activities, people, places)? For instance, if children are learning about animals and animal homes, an educator could use a video clip that shows what a rabbit burrow looks like underground.

- Can the technology help children document, revisit, and share their experiences? For example,

  o Educators might record children engaging in a science exploration and then use the video clip to help children reflect on what they learned.

  o A child could use a digital camera, phone, or tablet, to take a picture of what he or she built at the block center and then, with help, upload the photograph and e-mail it to his or her family.

- Does this media help children make connections to their peers or to their community? (e.g., establishing e-mail "pen-pals" with children in another program, taking photographs and e-mailing them to families, etc.).

What other things should educators think about when selecting media?

- Practice using the technology and cue up the media being used.

- Consider the setting. Can the media be sent home for parents and children to view or will the viewing happen only at the program? Will the whole class or a small group of children view it?

- Consider running time. Will children watch an entire show or a brief clip? Make sure the media selection is long enough to inform and engage, but not so long that children get restless or bored. If the selection is too long for one viewing, split it into two and show the second part later in the day or week.

- Consider the content. Is it developmentally appropriate and age appropriate for children? Will it support children's learning or confuse them?

Support Children's Viewing

Media and technology, when used appropriately, can support children's academic learning in many areas, such as in early literacy, language development, mathematics, and science. Adults can maximize the benefits of media by engaging with children while they are viewing.

- **Prepare children before viewing by teaching new concepts or helping them access what they already know**. *(We've been learning about water and how it can change. Yesterday, we noticed that one of the puddles on our sidewalk disappeared! Talk to your partner about what you think happened to that water.)*

- **Set a clear purpose for viewing**. Tell children what you want them to learn from viewing. *(We're going to watch a video about the water cycle. Watch to see what happens to the puddle in the video.)*

- **Promote active viewing**. Leave the lights on when viewing video, engage with what is on the screen by pointing out or asking questions about important objects or events; elaborate or annotate; and allow for questions or discussion. Create a dialogue with children while they are engaging with media or technology. (*There's a puddle on screen just like the one we saw outside yesterday! What do you notice about this puddle that is the same or different from the one we saw yesterday?)*

- **Encourage group discussion**. Break students into small groups for discussion or discuss as a larger group.

- **Facilitate multiple exposures in multiple contexts**. Offer many opportunities to view media (such as at learning centers or during small groups**)** and consider circulating media or sharing links for home viewing.

What can an educator do to prepare before children view media?

- Watch the video in advance. (You may want to watch it several times.) If you know the content, you can better formulate questions to guide children's viewing.

- Prepare children by introducing what they will see. *(Today, we'll see a video of children on an outdoor scavenger hunt. They are looking for things outside. They're doing exactly what you're going to be doing on your outdoor scavenger hunt.)*

- Tell children what you want them to learn from viewing the video and what follow-up activities will take place. *(Today, we're going to watch a video about ramps. I'm going to ask you to tell me which items roll down the ramp.)*

What are some ways to support children's active viewing?

- Keep the lights on to help children actively engage with what they are seeing.

- Pause the video to ask questions about what children are seeing, thinking, and wondering. *(Let's look at this scene a little longer. Did the apple roll or slide down the ramp? Did the heavier ball or the lighter ball roll down the ramp faster?)*

- Invite children to think about ways they can explore similar content in the real world. *(We watched the children in the video race a light ball and a heavy ball down the ramp to see which one went fastest. Would you like to try that?)*

- Encourage partner and group discussion by asking children to talk about what they are thinking and wondering about the video. *(I wonder how long it takes an ice cube to melt. Tell your partner what you're wondering about.)*

- When sharing a video with music, encourage children to sing and dance along.

- When sharing a story, have children think about the characters, the setting, and the plot.

Help Children Reflect and Make Connections

Effective use of media and technology helps children connect what they have seen in the video to experiences they are having in their learning environment or elsewhere. In this way, the media or technology either models or reflects what children are learning.

- **Invite children to answer questions** or elaborate on ideas that were presented before viewing. *(Before we watched, I asked you to tell me which items rolled down the ramp. What did you find out?)*

- **Help children make connections to their own experiences**. Explain and discuss how the ideas they see on screen connect to their own experiences in and out of the learning

environment. *(Did you ever see a building being built? How was it similar to what you saw in the video?)*

- **Choose follow-up activities that connect to a hands-on or real-world experience**. *(In the online game you played, you built a house for a dog. If you were going to build a house for our class pet, what kinds of materials would you use to make sure it was sturdy?)*

Why do children need to reflect and make connections after viewing media?

- Young children learn best when they make connections to their own lives. If they can connect what they are learning to something they already know, it helps the new learning "stick."

What strategies can be used to help children reflect on what they have seen?

- Ask questions that prompt children to reflect, such as:

  o *What did you notice?*

  o *Why do you think that happened?*

  o *How do you think we can do that?*

  o *What do we know now about _____ that we didn't know before?*

  o *What are you still curious about?*

- Model your own reflection so children understand what it sounds like. *(I noticed that the marble rolled all the way into the tube after it rolled down the ramp. I didn't know that the marble would roll so far.)*

How can educators help children make connections between on-screen and off-screen activities?

- Ask children to answer questions or comment on the questions that were asked before viewing. *(What did we learn about ramps? Did we learn anything that might help us figure out what will rolls and what slides?)*

- Help children remember what they saw and then make connections to their own experiences. *(Why did the ice melt in the video? How did we get our frozen paint to melt?)*

- Choose follow-up activities that connect to hands-on experiences. *(We've seen what happens when the children in the video experiment with force and make a bowling game with their ramp. Let's experiment with force and make a bowling game with our ramp to see what happens!)*

Glossary

developmentally appropriate practice: practice that builds on the typical characteristics of development of specific age groups

interactive media: media that facilitates active and creative use by young children and encourages social engagement with other children and adults (includes software programs, applications or "apps," broadcast and streaming media, some children's television programming, e-books, the Internet, and other forms of content)

non-interactive media: media that leads to passive viewing and over-exposure to screen time for young children; is not a substitute for interactive and engaging uses of digital media or for interactions with adults and other children (includes certain television programs, videos, DVDs, and streaming media)

View the self-paced video workshop at http://resourcesforearlylearning.org/educators.