# Helping Preschoolers Use Technology Throughout the Daily Routine

BY MOLLY JOURDEN, HIGHSCOPE DEMONSTRATION PRESCHOOL TEACHER

As educators, we know that children learn best with open-ended and real materials that they can manipulate and explore with all their senses. We also feel pressure from society, the media, and families to use, and teach the functions of, current technology in the classroom.

However, while electronic media can be used in interactive and open-ended ways, many times the latest fad or trend in technology does not lend itself to use in a developmentally appropriate fashion, either because it provides a narrow range of sensory input (just sight and sound) or offers limited choices for inventive play and problem solving. So, how can we incorporate technology in the classroom in a way that promotes active learning and hands-on experiences for children? This article illustrates how teachers can appropriately incorporate use of technology during the major parts of the HighScope daily routine.
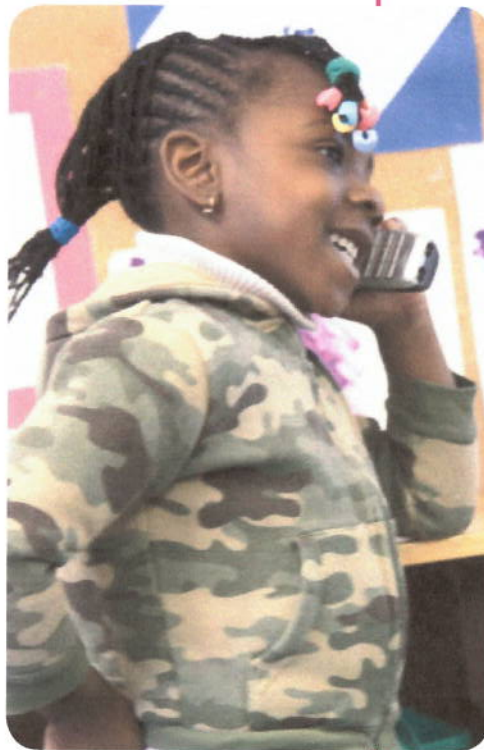
example would be to have the children use a keyboard to type out or e-mail their plan for work time (e.g., those at an earlier level of development might type *A* or *ART* for the art area; those at a later level might — with help — type *paint* or *clay* for the material they want to use). In doing this, you do not need to have a working keyboard — children will still learn that a keyboard is designed to write messages that communicate information to others. While pretending to type, the children have the opportunity to identify letters and authentically explore the way it feels to press the keys. Teachers also have the opportunity to introduce relevant vocabulary words such as *keyboard, keys, type,* and *letter,* and the names of numerals, and particular keys, using words like *arrow, up* and *down,* and so on.

Working items may also be used — by children and/or adults — when the children are in need of a concrete or simple planning or recall strategy. For example, at planning time, a child could use a working digital camera to take a picture of a material he or she intends to use during work time. A teacher could use a tablet to take pictures, videos, or audio clips of children engaged in activities at work time and then share those at recall time as a prompt for conversation. (For guidelines on which working technologies are appropriate for children and/or adults to use, see the feature article in this issue of *Extensions.*)

Planning and Recall Time

Many of the technology items that are used to help children plan and recall are disabled or nonworking equipment; this is similar to the way dial or push-button telephones and film cameras were used in HighScope classrooms in the nondigital past. Examples include, but are not limited to, microphones, cell phones, telephone headsets, walkie talkies, keyboards, and digital cameras. When using a piece of disabled or nonworking technology with children, use it for its intended function and provide the corresponding vocabulary support to aid children's understanding of that piece of technology. An

Work time

Work time is an equally valuable part of the daily routine for providing children with the opportunity to use technology in the classroom at their own pace and developmental level. A common way of providing this exposure to technology is adding computers to the classroom. The key is to have software available that is open-ended and interactive, not programs that only allow for a right or wrong choice or that do everything for the user except a few mouse clicks. Some programs that work well for children are drawing programs that allow children to create and color shapes, or word processing

programs that allow children to type letters, words, and stories in addition to having the option to print what they wrote. Other items of technology that could be made available to children at work time include cameras, cell phones, calculators, cash registers, handheld scanners (to use with the cash register), tablets, keyboards, computer mice, GPS units, and voice recorders. These need to be real items, but they can be working or nonworking, depending on the children's ability to use them without risk of harm to themselves or damage to the equipment. Another way to expose children to the parts and features of technology is to create a take-apart area where children can use tools to take apart and explore nonworking items. This exploration

will help children discover how items are put together, how they function, and what is used to make them (*Note*: Be sure to remove hazardous parts first, such as batteries.)

Small- and Large-Group Time

Small- and large-group times are effective parts of the daily routine for helping children practice skills that can later be applied to use of technology. These times of the day are also helpful for introducing new hardware or software to the children before it is added to the classroom for use at work time.

For a small-group time, the children could work with pencils, paper, and envelopes to write letters to family members. Children could engage in this small-group activity before computers with a word processing program are added to the classroom, as a way of supporting the children's understanding of various methods for documenting ideas and communicating with one another. Then, when the computers and appropriate writing programs are introduced, children will see the technology as another tool for achieving the same purpose.

At a large-group time, the class could sing songs that are also used in a music program on the computer. Learning songs at large-group time allows teachers to slow the songs down so children can learn the words as well as incorporate choices of actions or movements to go with the songs. Once children know the songs, and are used to introducing their own variations, they will recognize and be able to manipulate them when the computer program is later introduced. By already having had the chance to practice writing and singing with their own hands and voices, the children will be able to

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devote more focus to learning how to use the computer or other items of technology when they become available in the classroom.

Technology has a regular presence in the world around us and in our everyday lives; as educators, we need to responsibly and thoughtfully find an appropriate way to introduce and educate preschool-aged children about the items of technology that will be in the classroom, which they will also encounter as tools for learning when they enter grade school. The above examples offer suggestions for how to introduce and use technology in the classroom while also supporting preschool children's developmental needs and active, hands-on learning.

Molly Jourden is a teacher at the HighScope Demonstration Preschool. She has been working with young children for the past eight years and enjoys watching her young students learn and grow throughout the year. In her free time, she enjoys reading, dancing, traveling, and spending time with her husband and son.

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