

Developmentally
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Practice



A reading from the CD accompanying
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Early Childhood Programs Serving Children
from Birth through Age 8, Third Edition.*

READING #5

Assistive Technology: Supporting the Participation of Children with Disabilities



Sarah A. Mulligan

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CATEGORIES:

Curriculum: Technology
Inclusion
All Ages

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Assistive Technology

Supporting the Participation of Children with Disabilities

Sarah A. Mulligan

Technology can engage, entertain, and delight young children in ways unheard of as recently as a few years ago. Assistive technology opens the door to learning for many children with disabilities and other special needs. When a child has significant developmental challenges, technology may be the only avenue to express ideas, play with

a toy, or demonstrate understanding of developmental concepts. Technology is a powerful tool that can help children be more independent, participate in games and other activities with peers, and communicate preferences. But it is not magic.

Assistive technology refers to both high- and low-tech tools that allow people of all ages to be more independent.

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Beyond the Journal. This article also appears on NAEYC's Website, www.naeyc.org. To find it, click on *Young Children*.



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dent. For young children with disabilities, technology offers a wide range of equipment to support participation and learning.

Some devices—voice synthesizers, Braille readers, switch-activated toys, and computers—are truly high tech, but many simple, low-tech tools are equally valuable in the early childhood classroom. For example, special handles on utensils and paint

brushes, or a handle attached to a stuffed animal, allow a child to grasp without help. Pillows and bolsters make it easy to interact with peers during circle time. Even spoons and forks with short handles or a stool to help a child reach the sink are examples of assistive technology because they do in fact enable the child to do something that would be harder (if not impossible) without help. Such low-tech aids help children with special needs navigate the early childhood environment.

Using technology to help a child with a disability may not be as simple as placing a stool in front of the sink, however. We must consider the level of technology necessary for the child to fully participate, what technology is best suited to the child's needs and

Some Things to Consider



The Division for Early Childhood (DEC) of the Council for Exceptional Children is an international organization for those who work with young children with special needs from infancy through age eight. The practices listed below are highlights from *DEC's Recommended Practices in Early Intervention/Early Childhood Special Education* (available from NAEYC), which includes specific recommendations for using assistive technology to enhance and improve the lives of children and their families.

Use technology to

- help all children develop independence in
 - communicating with others
 - accessing the environment
 - developing social and adaptive skills
 - moving throughout the environment
 - engaging in daily life skills
 - interacting with others
 - promoting health and safety
 - finding a position that makes it easy to play
- increase a child's ability to participate in routines and activities in different environments—including early childhood programs, after-school programs, recreational activities, transportation, and social environments
- facilitate the child's participation in age-appropriate and developmentally appropriate activities
- assess the child's development, understanding of concepts, and ability to participate in typical routines and activities

Visit www.dec-spced.org or call 406-243-5814 to find out more about resources for young children with disabilities.

abilities, and what can reasonably be used in the environment given available space and resources. Before investing in sophisticated, high-tech devices, we should explore less intrusive yet effective low-tech alternatives. For example, before purchasing an electronic communication board, try using photos of common objects mounted on a board to encourage a child to make choices and requests.

Equally important, we must match the technology to the needs and abilities of the child. With so many options available, it is essential that those adults most

familiar with the child work closely with professionals who have special expertise in assistive technology. This collaborative process can ensure that the supports used will help the child achieve independence and that the technology benefits everyone.

Assistive technology options are exciting and full of promise, but not every device fits in every environment. Some might be too expensive or cumbersome to transport between home and school or too specialized to be used in multiple environments. Carefully analyze each environment to determine what equipment or technological device is needed to support the child's participation. Equipment used in a therapy setting might be different from that used in an early childhood program, or devices not needed in one setting might be crucial in another that offers the child different opportunities.

Even the most sophisticated device won't help unless it matches the child's abilities *and* the demands of the environment. The challenge for early childhood professionals and families is to find the device that helps a young child with a disability take part in every routine and activity. The right match of assistive technology can create magic when it allows a child to be more independent and expressive.

More Resources

The Tots 'n' Tech Research Institute—<http://tnt.asu.edu>—offers ideas for equipment and materials that can help children with special needs be more independent in caring for themselves, making friends, communicating, and doing the things that other young children do in child care and community activity settings.

The National Early Childhood Technical Assistance Center—<http://nectas.unc.edu/topics/atech/atech.asp>—provides information on various types of assistive technology, funding resources, and current legislation.

Child Care plus+: The Center on Inclusion in Early Childhood—www.ccplus.org—offers a number of free and inexpensive resources, including an Adapting Toys Tool Kit that contains materials and instructions for adapting toys, adding sensory input, and promoting independent play.

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5-Assistive Technology: supporting the Participation of Children with Disabilities.

Technology is a powerful tool that can help children be more independent, participate in games and other activities with peers, and communicate preferences. But it is not magic.

Use the Table Below to Fill in the Blank

1. Pillows and bolsters make it easy to _____ with peers during circle time.
2. Assistive _____ options are exciting and full of promise, but not every device fits in every environment.
3. Even the most sophisticated _____ won't help unless it matches the child's abilities and the demands of the environment.
4. For young children with disabilities, technology _____ a wide range of equipment to support participation and learning.
5. Even spoons and forks with short handles or a stool to help a child reach the sink are _____ of assistive technology because they do in fact _____ the child to do something that would be harder (if not impossible) without help. Such low-tech aids help children with special needs navigate the early childhood environment.
6. Carefully analyze each environment to _____ what equipment or technological device is needed to support the child's participation.
7. Before investing in _____ high-tech devices, we should explore less intrusive yet effective low-tech alternatives.

1	device	2	enable
3	offers	4	interact
5	technology	6	sophisticated
7	examples	8	determine

List three ways you will use this information:

- 1 _____
- 2 _____
- 3 _____

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The presentation consisted of hands on training, questions and answers, and lecture.	1 2 3 4 5
Overall effectiveness of training (I feel the training was clear and easy to understand)	1 2 3 4 5
The interactive classroom and homework assignments were helpful learning materials	1 2 3 4 5
This subject was useful and I have incorporated the information into my childcare environment	1 2 3 4 5
Overall effectiveness of training	1 2 3 4 5
The method used to present this information was in step with my learning style	1 2 3 4 5
I would recommend other providers to attend this training	1 2 3 4 5
The materials used in this training were valuable and relevant (i.e. handouts, books, homework assignments, etc.)	1 2 3 4 5

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What did you like least about this training session/topic?

How can this training be improved?

- My learning style is: (please check one)
- Visual Learner- You learn by seeing and looking.
 - Auditory Learners - You learn by hearing and listening.
 - Kinesthetic Learners - You learn by touching and doing.

What class/topics would you like for us to present as it relates to this training session?

Was the information presented difficult to understand? Yes No

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I received the materials in a timely fashion? Yes No

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