

SWEET Assistive Technology Toolkit Guide

for children birth-five years



Supporting Early Education Delivery Systems (SEEDS) Project

www.scoe.net/SEEDS

Purpose of the SWEET AT Toolkit:

The SWEET AT Toolkit was developed to meet the needs for access to low-tech, inexpensive tools designed to assist young children with disabilities to learn, play, grow and participate with peers and family members. As a special initiative of the SEEDS Project, the SEEDS Workgroup on Early Education Technology (SWEET) formed to develop training and resources for providers and families in early childhood programs to increase awareness and use of AT for young children. The AT Toolkit is based on the need to have AT tools readily available for children, families, and providers to apply in daily routines and activities. The SWEET AT Toolkit is actually a guide for the development and use of AT Toolkits in early intervention and early childhood settings.

The contents of the AT Toolkit are based on surveys by several researchers including Judge (2006), Mistrett (2004) and others who have identified a range no-tech, low-tech and high-tech tools that are essential for practitioners to have available in order to determine AT needs for individual children with disabilities.

The SWEET group reviewed current research-based AT Toolkit content in order to provide guidelines, activities, recommended items, and applications of the AT Toolkit with young children. Most items can be obtained inexpensively at Dollar Stores, online companies and discount retailers including clear contact paper, zip-lock baggies, Velcro, sticky-back foam, page protectors, etc. Certain items such as battery-operated toys, Voice Output Communication Aids (VOCAs) may be purchased commercially or teacher-made. The content of the AT Toolkit Guide includes a list of all items needed, sources, cost, directions for assembly (when needed) and applications.

The development and application of the AT Toolkit also requires appropriate containers. Extensive field research conducted by the SWEET members have produced a number of suitable containers that can be found at discount stores such as Wal-Mart or craft and scrap booking supply stores. Containers with wheels and many compartments are advisable. Further, SWEET members have found that 2 containers are needed, one for AT tools and equipment; and one for materials and supplies to create AT tools.

For more information on AT Toolkits for young children, visit the SEEDS website at www.scoe.net/seeds.

What's inside the SWEET Assistive Technology (AT)

Toolkit :

The AT Toolkit Guide includes the following information that can be used to build your toolkit.

- Toolkit list
- Handouts on Toolkit components
- Resource List

What do you put in your AT Toolkit?

The SWEET AT Toolkit includes tools to increase the child's participation in play, communication, literacy, computer technology and interaction with others in the environment. A complete list of items to be included in your AT toolkit is listed under Toolkit List.

- Battery Operated Toy with Switch
- Baggie Book
- Communication Photos & Book
- Voice Output Communication Aid
- Visual Communication Aid
- BoardMaker
- Communication Boards
- Adapted Computer Mouse
- Step-by-Step



As mentioned above, several tools in the AT Toolkit can be made with inexpensive materials while others must be ordered commercially. The development and gathering of tools will provide powerful demonstrations to support young children with complex disabilities to demonstrate potential skills that may not be supported otherwise.

Applications of the SWEET AT Toolkit:

In addition to guidelines for materials and development of the SWEET AT Toolkit, many handouts on toolkit components are provided in pdf format for downloading purposes. Each handout covers descriptions of the item, goals, activities, sources, and further resources to support the item implementation. For example, handouts support the development and use of tools such as: the Communication Photo Book, Battery-Operated Toy, Eye-Gaze Communication Board, and many others. Each handout provides specific instructions for making or purchasing the item and several activities for each.

Handouts can be used for both AT assessment and intervention. For example, the Baggie Book may be used in joint-book reading to observe and assess the child's comprehension through response to photos or pictures in the book. Further, when used as a teaching tool, the Baggie Book can be used to support associations between "prop" pictures that can be detached from each page to the pictures and actions in the book.

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Further Resources for AT Toolkit:

Additional resources for the development of the AT Toolkit are provided in the following pages. Specifically, refer to the following resource:

Campbell, P. H., Milbourne, S., Dugan, & Wilcox, M. J. (2006). A review of evidence on practices for teaching young children to use assistive technology devices. *Topics in Early Childhood Special Education, 26*(1), 3-13.

Dugan, L., Millbourne, S., Campbell, P., & Wilcox, M. (2004). Using assistive technology with infants and toddlers: evidence-based practice. *Research Brief Volume 1, Number 6. Tots n Tech Research Institute*. Retrieved August 16, 2005, from <http://tnt.asu.edu>.

Grant, D. & Singer, G. (2004). Computer assisted instruction for toddlers with disabilities. *Closing the Gap, 23*, 1-3.

Hanline, M. F., Nunes, D. & Worthy, M. B. (2007). Augmentative and alternative communication in the early childhood years. *Beyond the Journal, Young Children on the Web*. National Association for the Education of Young Children. Retrieved April 16, 2006 from www.naeyc.org.

Judge, S. L. (1998). Computer applications in programs for young children with disabilities: current status and future directions. *Journal of Special Education Technology, 16* (1), 1-12. Retrieved August 16, 2005, from <http://jset.unlv.edu/16.1/Judge/html>.

Judge, S. (2002). Family-centered assistive technology assessment and intervention practices for early intervention. *Infants and Young Children, 15*(1), 60-68.

Judge, S. (2006) Constructing an Assistive Technology Toolkit for Young Children: Views from the Field. *Journal of Special Education Technology 21* (4) 17-24.

Mistrett, S. (2004). Assistive Technology helps young children with disabilities participate in daily activities. *Technology in Action, Volume 1*, 1-8.

Sadao, K. C., Robinson, N. B., & Grant, D. (2007). It's all about access: Getting the word out about assistive technology in early intervention. *Closing the Gap, 23*(6), 9-11.

Sawyer, B., Millbourne, S., Dugan L. & Campbell, P. (2005). Report of assistive technology training for providers and families of children in early intervention. *Tots N Tech Research Institute Research Brief 2*(1). Retrieved August 16, 2005 from: <http://tnt.asu.edu>.

Stremel, K. (2005). DEC Recommended Practices: Technology Application. In S. Sandall, M. L. Hemmeter, B. J. Smith, & M. McLean. *DEC Recommended Practices: A comprehensive guide for practical application in early intervention/early childhood special education*. Longmont, CO: Sopris West.

Weintraub, H., Bacon, C., & Wilcox, M. (2004). AT and young children: Confidence, experience and education of early intervention providers. *Tots n Tech Research Institute Research Brief 1*(2). Retrieved August 30, 2005 from <http://tnt.asu.edu>.

Wilcox, M. J., Gulmond, A., Campbell, P. H., & Moore, H. W. (2006). Provider perspectives on the use of assistive technology for infants and toddlers with disabilities. *Topics in Early Childhood Special Education, 26*(1), 33-49.

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