Overview of Assistive Technology (AT) for Writing

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What is Assistive Technology (AT)?

Legal Definition of AT

DEVICE

- Assistive technology device means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability. (Authority: 20 U.S.C. 1401(1))
Increase, maintain or improve functional capabilities of child with disability
Legal Definition of AT Service

Any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device. Such term includes:

(A) the evaluation of needs including a functional evaluation, in the child’s customary environment;

(B) purchasing, leasing or otherwise providing for the acquisition of assistive technology devices;

(C) selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing of assistive technology devices;
• Assessed
• Assistance in acquiring
• Tools are individualized

Legal Definition of AT Service

(D) coordinating and using other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs;

(E) training or technical assistance for a child with disabilities, or where appropriate that child’s family; and

(F) training or technical assistance for professionals (including individuals providing education and rehabilitation services), employers or others(s) who provide services to employ, or are otherwise, substantially involved in the major life functions of the individual with a disability

• Working with other professionals
• Training
What is Assistive Technology (AT)?

Consideration

Staff Support

Provision

Implementation

Monitoring Student Performance

When does technology become AT?

• With regard to students receiving services under IDEA, there is a two-prong test:
  
  When the technology is used as a compensatory intervention.

  When an IEP Team decides that the technology is needed by the student.

When does Technology become Assistive Technology?

• Technology used to help a student complete their academic tasks that they cannot currently complete, due to their disability.

• Increase, improve, or maintain functioning

• Documented in the IEP
A Fine Semantic (and Legal) Line

- Assistive Technology for one student may just be technology for another.
Gathering Information

What is SETT?

- SETT is...
  - A process to help IEP teams gather information and make collaborative decisions about AT.

- SETT is not...
  - An assessment/evaluation
What does SETT stand for?

- Student
- Environments
- Tasks
- Tools

http://www.joyzabala.com/Documents.html

SETT Scaffold for Tool Selection

http://www.joyzabala.com/Documents.html

SETT Scaffold for Data Gathering

http://www.joyzabala.com/Documents.html
Additional Resources on SETT and Assessment

Sharing the SETT Framework
http://www.joyzabala.com/

Assessing Students’ Needs for Assistive Technology - Wisconsin Assistive Technology Initiative
www.wati.org

Assistive Technology Tools for...
• Seating and Mobility
• Electronic Aids for Daily Living
• Students who are Blind/Have Low Vision
• Students who are Deaf/Hard of Hearing
• Computer Access
• Recreation and Leisure
• Organization
• Math
• Reading
• Writing
• Communication
Reading

Standard text

Book adapted for access

Low Tech Modifications to text

Handheld device to read individual words

Use of pictures symbols with text

Modified electronic text

Text reader

Text reader with study skill support

Standard Text

What strategies and supports does the student have to read and comprehend standard text?
Low Tech Modifications to Text

- Modifications made to text
  - Enlargement
  - Increased spacing
  - Change text and/or background
  - Modify vocabulary
  - Changing the ability to manipulate the book

Handheld Devices to Read Individual Words - Mid Tech Supports


Reading Pens
Wizcom – www.wizcomtech.com

Use of Picture Symbols with Text – Mid Tech Supports Software to Create

- Boardmaker Plus/ Boardmaker Online – www.mayer-johnson.com
- Clicker - www.cricksoft.com
- IntelliTools Classroom Suite - www.ablenetinc.com
Electronic Text

- StoryNory – www.storynory.com
- Newsela - https://newsela.com/
- Project Gutenberg - http://www.gutenberg.org/
- Bookshare – www.bookshare.org
Electronic Text · Commercial eBooks

• Start to Finish series – www.donjohnston.com
• Tumblebooks · http://www.tumblebooks.com

Text Readers

Hand Held Readers
• Kindle – www.amazon.com
• iPad/iPod – www.apple.com
• Intel Reader - amazon

Online Resources with Text to Speech Supports
• Literactive (free) – www.literactive.com
• Tarheel Reader (free) – www.tarheelreader.com
• CAST UDL Book Builder (free)– http://bookbuilder.cast.org
Text Readers

Computer Based Text to Speech – FREE Programs

- Acrobat Reader – (built into Adobe Reader) – www.adobe.com/AcrobatReader
- Natural Reader - http://naturalreaders.com
- Chrome extensions: Chrome Speak, Speak It!
- Flame Reader – www.flamereader.findmyssoft.com

Text Readers with Study Skill Support

Text to Speech – Paid Programs

- Kurzweil – www.kurzweiledu.com
- Read and Write – www.texthelp.com
- WYNN – www.freedomscientific.com
- Snap & Read – www.donjohnston.com

Writing – Motor Aspects

Environmental & seating adaptations

- Variety of pencils/pens
- Adapted pencils/pens
- Adapted paper
- Writing templates
- Prewritten words/phrases
- Label maker
- Portable talking dictionary

www.wati.org
Writing – Motor Aspects

- Portable word processor
- Computer with accessibility features
- Computer with word processing software
- Alternative keyboards
- Computer with word prediction
- Computer with speech recognition software

Low Tech – Motor Aspects of Writing

- Variety of pencils/pens
- Pencil/pens with adapted grip
- Adapted paper
- Slant board

Low Tech – Motor Aspects of Writing

- Adapting worksheets/writing templates
- Use of prewritten words/phrases
- Rubber stamps
Mid Tech – Motor Aspects of Writing

- Label Maker
- Portable word processor

High-tech – Motor Aspects of Writing

- Accessibility Features – Windows & Mac
  - Magnifier
  - Onscreen keyboard
  - Narrator
  - High contrast
  - Keyboard options
  - Mouse options
  - Voice recognition

Where to Find More Information about Accessibility Features?

- Microsoft Accessibility –
  www.microsoft.com/enable/products/chartwindows.aspx

- Apple in Education –
  http://www.apple.com/accessibility/
High-tech – Motor Aspects of Writing

- Word processing programs can provide...
  - Formatting options
  - Clean product

High-tech – Motor Aspects of Writing

- Alternative Keyboards
  - Big Keys
  - iDevices
  - Logitech diNovo mini

High-tech – Motor Aspects of Writing

- Word Prediction
- Speech Recognition
Questions

Writing - Composition

- Picture supports
- Pictures with words
- Word cards/word banks/word wall
- Pocket dictionary/thesaurus
- Writing templates
- Portable, talking, spell checkers, dictionary, thesaurus
- Word processing
- Word prediction

Writing - Composition

- Digital templates
- Abbreviation expansion
- Word processing with digital supports
- Talking word processor
- Multimedia software with alternative expression of ideas
- Tools for citations and formats
- Speech recognition software

www.wati.org
Low Tech – Composing Written Materials

- Picture supports
- Pictures with words
- Word Cards/Word Banks/Word Wall

Mid Tech – Composing Written Materials

- Pocket Dictionary Thesaurus
- Portable electronic, pocket dictionary/thesaurus
- Portable word processor

High Tech – Composing Written Materials

Beginning Writers

- Clicker Software - http://www.cricksoft.com/
High Tech – Composing Written Materials

Beginning Writers

- First Author: www.donjohnston.com

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High Tech – Composing Written Materials

- Text to Speech
  - WordTalk (free) – www.wordtalk.org
  - Read & Write for Google – https://rw.texthelp.com
  - Write Outloud - www.donjohnston.com
  - Talking Word Processor - www.readingmadeez.com

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High Tech – Composing Written Materials

- Organization
  - Inspiration - www.inspiration.com
  - DraftBuilder – www.donjohnston.com
  - Bubbl – www.bubbl.us
  - Lucid Charts - https://www.lucidchart.com/
High Tech – Composing Written Materials

- Word Prediction
- Voice Recognition

High Tech – Composing Written Materials

- Programs to assist with grammar
  - Grammarly
  - Ginger
My First Car

For years I've been driving an old used car with a lot of mileage and
I knew it was going to be here I needed to go, but I'm not used to buying new
and spending all the time. By any means every time I tried but
impossible. I finally decided that I would go buy a new car. Unfortunately,
I have a problem. I have no idea what to get. Do I want something
big? Do I want something small? Something meaningful? There are
so many choices that I don't even know where to begin.

I am sure I will be able to make a decision on my own. I don't have
careful in making decisions. I probably don't make many options.

Questions

Resources

ISBE & Infinitec website – www.at4il.org
Wisconsin Assistive Technology Imitative - www.wati.org
Georgia Project for Assistive Technology – www.gpat.org
Infinitec – www.myinfinitec.org
For more information, please contact

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