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St. Paul Public Schools  
Independent District #625  
360 Colborne Street 55102

## Assistive Technology Newsletter

# Tech Talk

### Helping children learn to their full potential

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## Writing Challenges and Your Child

### The Writing Process:

Writing is a process that involves both motor and cognitive skills. Motor skills for writing (often referred to as handwriting skills) involve the actual physical or motor tasks required. The motor tasks of writing encompass legibility, eye-hand coordination, ability to use a writing tool (pencil, keyboard, etc.), spacing, letter formation, and letter size. The cognitive skills of writing involve thinking, planning, organization and decision making. Spelling, mechanics (punctuation and capitalization), grammar and reading skills are also important.

3. Proof reading, editing and evaluating

### AT & Writing:

To support students with all of the skills required for effective writing, an assistive technology (AT) toolbox of writing supports can be put in place that includes tools that range from simple to complex. With advancements in technology, more writing tasks are being completed electronically, which presents the struggling writer with a wide variety of available electronic writing tools.

Many parents and teachers wonder when assistive supports for writing should begin to be used for students whose handwriting is illegible. Low-tech solutions, such as pencil grips and wide-lined paper, are appropriate for many beginning writers. However, when children have a lot of ideas to communicate and are unsuccessful writing words legibly on paper due to what appear to be physical limitations, the IEP team should consider additional AT options, including higher-tech options. These options should be considered before the struggling writer starts to avoid writing, shuts down or has a need for an adult scribe.

AT tools that support the physical and cognitive skills of writing or provide a manageable sensory environment greatly reduce the stress levels for struggling writers. These tools allow student writers to place primary focus on what is being written rather than how or where it is written.

*To learn more about how your child might benefit from AT tools that support writing, contact your child's IEP team leader.*



### Using AT at Home

#### Adapted Writing Tools



Adapted writing utensils help children develop independence with the motor process of writing

#### Voice/Video Recorder



Support note taking in class on iPad or other device

#### Portable Word Processor



Type notes, answers to worksheets or papers if handwriting is difficult.

Sensory factors can impact one's ability to complete the writing process. These factors include hypersensitivity or hyposensitivity to stimuli such as visual clutter, fluorescent lighting, background noise and tactile stimulation. Sensory factors are typically taken into account as part of environmental considerations when doing planning that supports the process of writing.

### Writing Tasks in School:

In school, the most common writing tasks include:

- Completion of worksheets;
- Writing words, sentences, paragraphs or pages;
- Note taking;
- Projects; and
- Tests

Completion of these tasks involves writing composition, the ability to express ideas in a way that is meaningful to others. Steps in the process of composition include:

1. Pre-writing, brainstorming and planning;
2. Drafting; and



## Parent Question

### How can I help my child with writing at home?

Provide authentic writing opportunities for your child by integrating writing into part of everyday home life:

- Use a dry erase board for messaging
- Encourage your child to add to a grocery list
- Make letters with wiki-sticks, play dough or a Magnadoodle
- Provide a 'writing' place
- Encourage your child to keep a reflective journal
- Be a writing role model
- Start a vocabulary notebook
- Help your child 'publish' writing in places around the house

For more ideas, check out Wendy Miller's article, "The Best Ways to Support Writing at Home: Draw or talk about a real life experience" <http://www.greatschools.org/student/s/homework-help/341-tips-to-support-writing-at-home.gs>

### Apps that Support Writing

#### Handwriting Practice:

- Alphabet Trace (Web Team Corp)
- Little Writer (Alligator Apps)

#### Writing Productivity:

- iPad Built-in Word Prediction
- iPad Built-in Siri Voice Dictation
- CoWriter (Don Johnston)
- Dragon Dictate (Nuance)
- Pages (Apple)
- Book Creator Free (Red Jumper Ltd)
- Haiku Deck

#### Mind Mapping/Graphic Organizer:

- Popplet (Notion)
- Kidspiration (Inspiration Software)
- Inspiration Maps (Inspiration Software)

#### Dictionary/Thesaurus:

- Merriam Webster Dictionary
- WordWeb Dictionary (WordWeb)

## Parent Question

### What factors do you consider before trying voice recognition?

If your child's language skills far surpass the ability to produce text with pencil and paper (or computer for word processing), voice recognition might be a good option. Before jumping to voice recognition, standard word processing, and word processing with word prediction should be considered as they are less restrictive supports and could provide the right amount of help to promote independence. Unlike voice recognition, which requires a quiet environment, these tools can be used successfully in a classroom setting.

Several skills are positive indicators for voice recognition.

1. Fairly good speech enunciation so that the computer accurately recognizes spoken words;
2. Ability to formulate sentences ahead of time in a clear, concise manner (without filler words: "like", and, "um").
3. Ability to read or recognize incorrect words for self-correction of text.

### AT to Support Handwriting Difficulties

- Pencil grips
- Slant boards
- Adapted paper (raised lines)
- Intellikeys alternate keyboard
- Portable word processors (Neo)
- Predictive word processors (CoWriter, Read and Write Gold)
- Smart Recording Pens
- Digital recorders and auditory notetakers
- Speech recognition software
- Google Chrome Voice Recorder app
- Built-in Siri Voice Recognition

### AT to Support Cognitive Writing Difficulties

- Writing prompts
- Word webs
- Spell checkers (Franklin, Word)
- Talking word processor (Write:Outloud, ClaroRead)
- Talking dictionary and thesaurus
- Graphic organizers
- Popplet/Inspiration/Kidspiration
- Built-In Siri Voice Recognition
- Built-In iPad Speak Selection for editing
- Built-In iPad Speak Display for editing

### Resources

- Technology Supports for Struggling Writers (Texas Assistive Technology Network) [http://www.texasat.net/default.aspx?name=trainmod\\_writing](http://www.texasat.net/default.aspx?name=trainmod_writing)
- AT Writing Tools – Great Schools <http://www.greatschools.org/special-education/assistive-technology/960-writing-tools.gs>
- Apps to Help Students with Dysgraphia and Writing Difficulties <http://www.nclld.org>