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# The Write Tools Can Make a Difference Considerations Packet

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# The “Write” Tools Can Make a Difference

## Technology Supports for Students Struggling With the Task of Writing

Writing is one of the most necessary skills students are asked to learn. From the moment they begin their educational experience, students are faced with the tasks of not only learning how to hold a writing instrument correctly so as to produce letters accurately, but also using letters to form words, sentences and, eventually, paragraphs. At some point during this process, an additional element is added—students are asked to organize their thoughts to produce writing that is clear, concise, and free of misspelled words and grammatical errors. For some students, this is not only a challenge but, without supplemental supports, an impossibility.

The art of writing is a complex process, requiring appropriate fine motor responses and engaging sophisticated cognitive processes. Therefore, writing can basically be thought of as consisting of two distinct activities: *mechanics*, or letter formation tasks, and *process*, or composition tasks.

This information packet is designed to offer ideas to the classroom teacher who is looking for effective ways to support students who are struggling with one or more aspects of the writing process. The following topics are addressed:

- How to identify students struggling with the *mechanics* of writing;
- How to identify students struggling with various aspects of the writing process;
- The continuum of support: “No” or “low-tech” solutions to more advanced technology supports for the *mechanics* of writing;
- The continuum of support: “No” or “low-tech” solutions to more advanced technology supports for the *process* of writing;
- The decision-making process: Determining a “best fit” from the myriad choices available; and
- Facilitating success: Supporting student technology use, productivity, and independence.

## Identifying the Student Struggling With the Mechanics of Writing

Teachers may see a number of signs that suggest a student is struggling with the mechanics of writing. Unfortunately, many educators are under the impression that, unless a student has a physical disability that limits hand functioning, a referral is inappropriate. Frequently, students with writing difficulties are considered unmotivated, sloppy, or lazy. The tragedy is that these students are suffering from very real, but perhaps undiagnosed, issues and could benefit tremendously from technology.

So, how do we as educators determine which students to refer? At what age should we consider additional supports? The following indicators suggest the need for intervention.

### Indicators That a Student Is Struggling With the Mechanics of Writing

- The student is unable to copy work either from the board or from other sources, or to take notes within a given period of time, which interferes with his or her ability to move on to other assignments.

- The student expends so much energy trying to form letters correctly that his or her ability to express thoughts in written form is significantly diminished.
- The student's writing is illegible, sometimes even to the student.
- After attempting a writing assignment, the student is so fatigued that to move on to another activity requiring the use of a writing instrument is too demanding.
- The student is applying so much pressure when using a pencil that the lead often breaks.
- The student's papers often have a smeared appearance due to the number of erasure marks.

Given these indicators, at what age should we consider possible interventions? We begin at the age when we would like to begin seeing an improvement in the student's performance! Considering other options doesn't mean that we abandon efforts to improve fine-motor abilities. However, waiting for motor skills to catch up with the student's intellectual abilities without providing a way for the student to keep up with assignments automatically guarantees that the student will fall behind academically.

### **A Continuum of Options for Students Struggling With the Mechanics of Writing**

When trying to determine how best to support a student, it is usually most appropriate to start with "low-tech" or "no-tech" options. The tools listed below are options to consider for supporting a student struggling with the mechanics of writing.

- Pencil grips or writing instruments with "grip" support
- Raised-line or differently spaced lined paper
- "Dycem" or other non-slip surface material to secure clipboards
- Hand splints, wrist guards, or other ergonomic supports
- Slant boards
- Tape recorders
- Portable note-takers
- Standard keyboards with or without utilizing built-in access features
- Word prediction software programs
- Keyguards
- Voice recognition
- Alternative keyboard (smaller or larger than standard)
- Onscreen keyboards used with alternative input devices (e.g., touch window, track ball, joystick, head mouse, switch)

### **Identifying the Student Struggling With the Process of Writing**

Students who are struggling with the *process* of writing are "breaking down" in one or more of the following four areas: brainstorming, drafting, revising, and/or editing. Students who consistently exhibit one or more of the following deficits can typically benefit from additional supports.

### **Indicators That a Student Is Struggling With the Process of Writing**

- Difficulty generating content
- Difficulty organizing thoughts/writing
- Sequencing issues
- Poor sentence structure
- Incorrect grammar usage
- Non-existent or inconsistent use of punctuation
- Deficient spelling skills/strategies
- Difficulty editing/revising work independently

If you have incorporated the previously suggested strategies and the student is still struggling, consider the additional technology supports below.

### **Strategies That Support Students Who Struggle With the Process of Writing**

- Model the process of writing. Illustrate the four phases of the writing process and the strategies that are used by having the class assist you during a group (class) writing project.
- Show examples of exemplary and poor writing and have students identify the aspects that contribute to both. With student input, identify and revise the inadequate piece of writing.
- Use writing prompts, webs, KWL charts DEFINE??., storyboards, etc., to help students plan and organize their writing.
- Use word walls, word banks, or cards to help poor spellers.

### **A Continuum of Technology Supports for Students Struggling With the Process of Writing**

- Electronic spell checker/dictionary/thesaurus
- Word processor with spell checker
- Organizational/webbing-based software for prewriting and drafting
- Word processor with word prediction
- Talking word processor
- Multimedia software/word processor with “libraries” of graphic support for more challenging or content-related words
- Picture word processor used with or without premade grids
- Multimedia/hypermedia software for creating electronic presentations/books/projects
- Interactive white boards

For more information on matching instruction and strategies to student needs in writing, please see Appendix D of the Instructional Assessment: An Essential Tool for Designing Effective Instruction Considerations Packet.

### **The Decision-Making Process: Determining a “Best-Fit”**

Before employing technology, *identify how you would like technology to make a difference*. A myriad solutions are available to assist your student; pinpointing the task(s) that he or she is currently unable to perform is usually helpful in guiding this process.

Once the task(s) has been pinpointed, *identify student strengths and weaknesses* in physical, cognitive, sensory, communication, and behavioral (social/emotional) areas, as they relate to the task at hand.

Allowing the information gathered from these tasks to guide you, decide where you would like to start on your “options” list. Begin with an option that allows the student maximum use of his or her existing skills, yet provides compensation or support for areas of weakness. As the first option is explored, you may find that the student needs additional related support, or you may see that another option on the list is more appropriate. Let the student’s success, or lack thereof, be your guide as you continue exploring supports.

### **Facilitating Success: Supporting Student Technology Use, Productivity, and Independence**

In order to facilitate success, consider the following:

1. Often success is not immediate. Remember that technology, like any other new idea or strategy, takes time and practice. Sometimes it takes as long as 4-6 weeks before a solution begins to make a noticeable difference in the student’s performance. However, if problems arise during this period, don’t wait until the end of the trial to attend to them. These issues need to be addressed while the student is trying out the device/strategy, so that a fair assessment of its effectiveness can be made. This is the time to voice your concerns and observations to related professionals regarding any needed changes to the equipment or for additional training in order to better support the student.
2. Adequate training of *all* individuals who support the student is essential to get an accurate assessment of how beneficial a given technology could be. Do not expect a student to be successful or even comfortable with the technology or proposed solution if you are not. Also, do not expect success if you cannot *model* how the device is to be used in given activities. Furthermore, once a solution is identified, training should be ongoing and change with the needs of the student and the staff supporting the student.
3. Failure to consider a student’s input regarding a potential technology solution can be an instant formula for disaster. Not only can the student provide invaluable information about the strengths and weaknesses of a potential solution, he or she may actually prefer a less obtrusive (and oftentimes less expensive) one. A student may refuse to use a device, or never receive its intended benefits, if using it makes him or her feel ostracized or “different” from peers.
4. Technology should never be just “dropped off” or dumped into a teacher’s classroom without support staff in place to address issues that may arise. What happens if the technology fails, or if the teacher cannot remember how to assist the student in performing a given task? What if it becomes apparent that the student needs additional modifications to the equipment in

order to use it successfully? And finally, what if the teacher just needs some practical strategies for integrating the technology across the curriculum? Whether support comes from the T/TAC specialist who loaned the software/hardware or other IEP team members, the classroom teacher should never feel alone during this process.

5. Even though technology has become much more user friendly, a number of potentially powerful technological solutions require curricular modifications in order to provide truly meaningful access to the curriculum. Ready-made templates (e.g., communication overlays, writing overlays for alternative keyboards) should be available during the trial period to free the teacher from the additional burden of initially having to make them. If additional templates or adaptations are required during the course of the trial, the person(s) responsible for making these templates should be identified and/or the teacher and support staff should be shown time-saving short cuts for materials preparation. As noted earlier, training should be available once a selection has been made.

The process of assessment should not be viewed as a quick, one-time activity, nor should its success rely on the efforts of one person. The input and support of everyone who works with each student are critical to ensure the positive impact that can be realized with technology use. In Virginia, we are fortunate that the Department of Education has incorporated technology training, technical assistance, and a loan program through the T/TACs so that teachers and IEP teams are not alone as they consider the technology needs of the students they serve. For more information on the assessment process, technical support, or training regarding technology for students with disabilities, please contact Fritz Geissler, M.Ed., project specialist, at 757-253-4862, or e-mail her at [fdgeis@wm.edu](mailto:fdgeis@wm.edu).

### **Companion Documents**

The following *Considerations Packets* are available through the [T/TAC website](#) at

- Instructional Assessment: An Essential Tool for Designing Effective Instruction
- The Writing Process: A Scaffolding Approach

The following article from *T/TAC Link Lines* is available at

<http://education.wm.edu/centers/ttac/resources/articles/teachtechnique/writeinstruction/index.php>

- Writing Instruction: A Way of Life for Teachers and Students

### **Recommended Reading**

Alliance for Technology Access. (1996). *Computer resources for people with disabilities*. Alameda, CA: Hunter House.

Bierly, D. R., & McCloskey-Dale, S. R. (1999). The tasks, the tools: Needs assessment for meeting writing demands in the school curriculum. *Closing the Gap*, 18(3), 1, 24-25.

Higgins, K., & Boone, R. (Eds.). (1997). *Technology for students with learning disabilities: Educational applications*. Austin, TX: PRO-ED.

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Reed, P. (Ed.). (1998). *Assessing students' need for assistive technology*. Oshkosh: Wisconsin Assistive Technology Initiative.

### **Additional Resources**

Resources are available for loan through the T/TAC W&M library. Visit our [website](#) for a complete listing of all our materials. Select the Library link off the home page.

This *Considerations Packet* was updated by Fritz Geissler, June 2009.