BUSTING BARRIERS TO USING AT IN SCHOOL IMPROVEMENT

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BARRIERS TO AT USE

1. Lack of knowledge about what AT is
2. Lack of administrative directive or support to learn about AT
3. Lack of vision of the value of AT and how it can fit into school improvement
4. Fear of change

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Lack of Knowledge of what AT is

- Cannot do what we do not understand
- Term "AT" is not well known or understood
- Misconceptions
- $$$$$$$

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Classroom Evaluation

Bugaj, C.R. & Norton-Darr, S. (2010)

Suggest:

- Looking at the entire classroom
- Noting supports and strategies already being used
- Recommending tools that multiple students can use
- Think about principles of UDL

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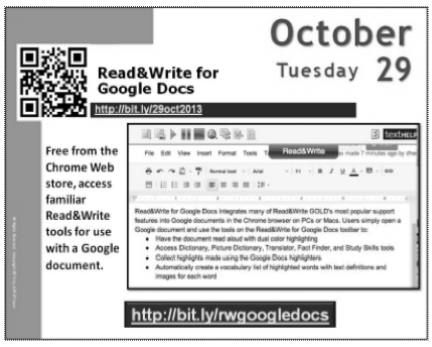

http://lcps.org/at

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OTHER RESOURCES ABOUT TECH TOOLS

- Maryland Learning Links _ Match Up Tool
  - http://marylandlearninglinks.org/3815
- Virginia AT Resource Guide
  - http://ttaconline.org/atsdp/
- You Tube videos – search for Assistive Technology
  - Assistive Tools for Reading from iCATOR

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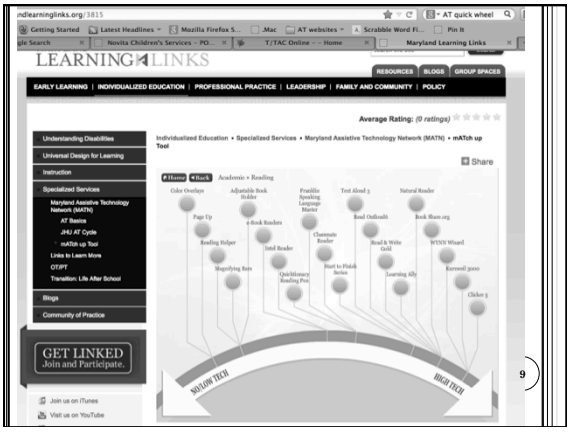

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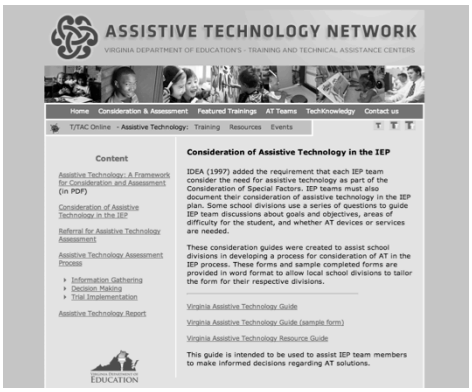

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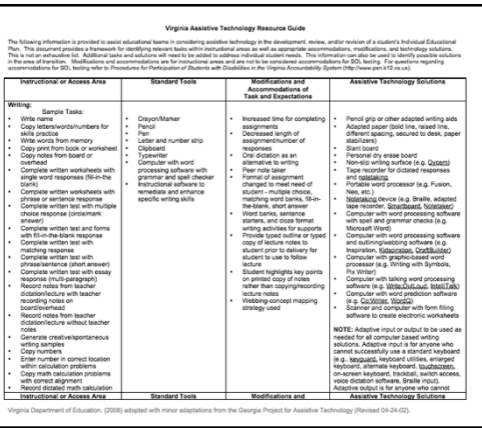

Virginia Assistive Technology Resource Guide

The following information is provided to assist educational teams in considering assistive technology in the development, review, and/or revision of a student's Individual Educational Plan. This document provides a framework for identifying relevant tasks within instructional areas as well as appropriate accommodations, modifications, and technology solutions. This is not an exhaustive list. Additional tasks and solutions will need to be added to address individual student needs. This information can also be used to identify possible solutions in the area of transition. Modifications and accommodations are for instructional areas and are not to be considered accommodations for SOL testing. For questions regarding accommodations for SOL testing refer to *Procedures for Participation of Students with Disabilities in the Virginia Accountability System* (http://www.pen.k12.va.us).

Instructional or Access Area	Standard Tools	Modifications and Accommodations of Task and Expectations	Assistive Technology Solutions
Writing: Sample Tasks: • Write name • Copy letters/words/numbers for skills practice • Write words from memory • Copy print from book or worksheet • Copy notes from board or overhead • Complete written worksheets with single word responses (fill-in-the blank) • Complete written worksheets with phrase or sentence response • Complete written test with multiple choice response (circle/mark answer) • Complete written test and forms with fill-in-the-blank response • Complete written test with matching response • Complete written test with phrase/sentence (short answer) • Complete written test with essay response (multi-paragraph) • Record notes from teacher dictation/lecture with teacher recording notes on board/overhead • Record notes from teacher dictation/lecture without teacher notes • Generate creative/spontaneous writing samples • Copy numbers • Enter number in correct location within calculation problems • Copy math calculation problems with correct alignment • Record dictated math calculation	• Crayon/Marker • Pencil • Pen • Letter and number strip • Clipboard • Typewriter • Computer with word processing software with grammar and spell checker • Instructional software to remediate and enhance specific writing skills	• Increased time for completing assignments • Decreased length of assignment/number of responses • Oral dictation as an alternative to writing • Peer note taker • Format of assignment changed to meet need of student - multiple choice, matching word banks, fill-in-the-blank, short answer • Word banks, sentence starters, and cloze format writing activities for supports • Provide typed outline or typed copy of lecture notes to student prior to delivery for student to use to follow lecture • Student highlights key points on printed copy of notes rather than copying/recording lecture notes • Webbing-concept mapping strategy used	• Pencil grip or other adapted writing aids • Adapted paper (bold line, raised line, different spacing, secured to desk, paper stabilizers) • Slant board • Personal dry erase board • Non-slip writing surface (e.g. Dycem) • Tape recorder for dictated responses and notetaking • Portable word processor (e.g. Fusion, Neo, etc.) • Notetaking device (e.g. Braille, adapted tape recorder, Smartboard, Notetaker) • Computer with word processing software with spell and grammar checks (e.g. Microsoft Word) • Computer with word processing software and outlining/webbing software (e.g. Inspiration, Kidspiration, Draft:Builder) • Computer with graphic-based word processor (e.g. Writing with Symbols, Pix Writer) • Computer with talking word processing software (e.g. WriteOutLoud, IntelliTalk) • Computer with word prediction software (e.g. CoWriter, Word Q) • Scanner and computer with form filling software to create electronic worksheets **NOTE:** Adaptive input or output to be used as needed for all computer based writing solutions. Adaptive input is for anyone who cannot successfully use a standard keyboard (e.g., keyguard, keyboard utilities, enlarged keyboard, alternate keyboard, touchscreen, on-screen keyboard, trackball, switch access, voice dictation software, Braille input). Adaptive output is for anyone who cannot
Instructional or Access Area	**Standard Tools**	**Modifications and**	**Assistive Technology Solutions**

Virginia Department of Education. (2008) adopted with minor adaptations from the Georgia Project for Assistive Technology (Revised 04-24-02).

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LACK OF ADMINISTRATIVE DIRECTIVE OR SUPPORT TO LEARN ABOUT AT

Administrators are the Key to Successful AT Use

- Leadership
- Management
- Supervision
- Program Development

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Enlist aid of Administrators/Supervisors

- Special Education Directors
- Knowledgeable principal at each level
- Immediate supervisor is key to implementation of new ideas
  - Reinforcement
  - Monitoring of progress
  - Access to Resources

Broad & Newstrom (1992)
O'dwyer, Russell & Bebell (2004)

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Share Research on AT

AT can improve outcomes:

- Math (Maccini & Gagnon, 2005)
- Writing (Sitko, Laine, & Sitko, 2005, Behrman, 2006)
- Reading (Strangman & Dalton, 2005)
- Achievement of IEP goals (Watson, Ito, Smith & Anderson, 2010)
- Students with physical disabilities (Johnson, Dudgeon, Kuehn, & Walker, 2007)

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Lack of vision of the value of AT and how it can fit into School Improvement

We must change the *vision* of AT and the *vision* of AT's inherent value. To do that we must address it directly.

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Law of the Few

- Connectors
- Mavens
- Salesman

- Gladwell, 2002

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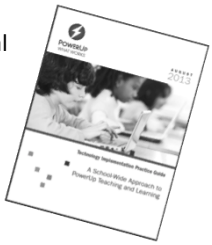
Work with Instructional Technology

- Become involved in general technology initiatives
- Download Technology Implementation Practice Guide

www.powerupwhatworks.org



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Massachusetts School Technology and Readiness Chart (STaR Chart)

Row	Focus Areas	Levels of Progress			
		Early Tech	Developing Tech	Proficient Tech	Advanced Tech
(K)	**Universal Access: Integration of Universal Design and Assistive Technology**	Emerging awareness of universal design and assistive technologies (hardware/software) limited to special educators; few examples across the district of universal design strategies or assistive technology used to promote access to the general curriculum.	Awareness of universal design and assistive technologies (hardware/software) by special educators & some general educators; universal design strategies or assistive technology used to promote access to the general curriculum demonstrated across all grade levels.	Awareness of universal design and assistive technologies (hardware/software) by special educators & most general educators; universal design strategies or assistive technology used to promote access to the general curriculum demonstrated across all grade levels; staff are designated to provide AT assessment, procurement, support (training) and maintenance.	Systemic adoption of universal design strategies throughout the curriculum and the seamless integration of assistive technology to promote access to the general curriculum for all students; staff are designated to provide AT assessment, procurement, support (training), and maintenance.

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KNOW THE MARKERS FOR SCHOOL SUCCESS

- Come in to Kindergarten ready to learn
- Reading on grade level at Grade 3
- Good attendance in Grade 6
- Passing score on math tests in Grade 8
- On track in Grade 9 with Six credits high school credits
- 12th grade, 9 college credits

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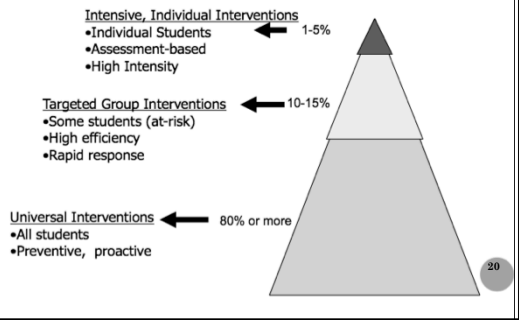
Relating to School Improvement Efforts - RTI



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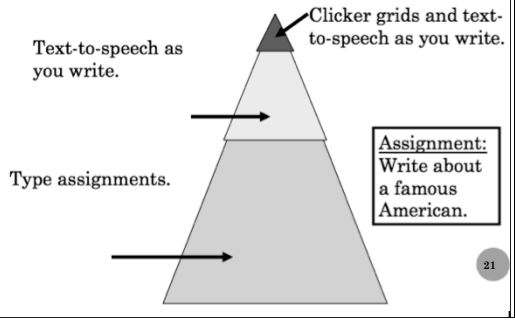
TECHNOLOGY IN THE TIERS

AN EXAMPLE: CLICKER 5



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ALTERABLE VARIABLES CHART

Alterable Components	Potential Adjustments				
Opportunities to Learn (Time/ concentration of instruction)	Increase attendance	Provide instruction daily	Increase opportunities to respond. *Use clicker response system*	Vary schedule of easy/hard tasks/skills	Add another instructional period (double dose
Program Efficacy	Pre-teach Components of core program	Use extensions of core program	Supplement core with appropriate materials *Use video clips to provide background information*	Replace current core program	Implement specially designed program
Program Implementation	Model lesson delivery *using video*	Monitor implementation frequently	Provide coaching and ongoing support	*Video teachers to check fidelity of implementation,* then provide additional staff development	Vary program/lesson schedule
Grouping for Instruction	Check group placement	Reduce group size	Increase teacher-led instruction	Provide individual instruction	Change instructor
Coordination of Instruction	Clarify instructional priorities	Establish concurrent reading periods	Provide complementary reading instruction across periods	Establish communication across instructors	Meet frequently to examine progress
Use of Technology	*Use software provided with reading program to expand instruction*	*Increase access to computers for practice and research*	*Provide spell checking and electronic dictionary*	*Add reading software to classroom computers*	*Provide text-to-speech to supplement decoding*

Bowser & Reed (2008) Adapted from: http://oregonreadingfirst.uoregon.edu/downloads/Alt_Var_Chart_2.pdf

PBS Intensive, Individual Supports

What rule is being broken and in what routine? What is the behavior?	What is the possible cause?	How can it be decreased or prevented?	What supports might be provided or skills taught?
Respectful in small group: Jack keeps getting up and leaving small group activity.	He is bored.	• Show him the order of activities visually. • Find out his interests and plan an activity that targets them. • Make sure he has background information to understand topic. • Use a timer to help him extend his attention span. • Give him a more challenging task.	• Visual schedule (with pictures if needed). • Provide timer with needed features (e.g. does it need to be silent?).
	He doesn't know what to do.	• Prior to activity use the visual schedule to explain to him what will happen in small group time. • Pre-teach the task. • Make a visual poster of the rules for group activities. • Make reminders available if he forgets the steps of a task.	• Visual Schedule/digital schedule • Visual poster • Recorded directions/reminders
	He is not able to do the assigned task.	• Identify the part of the activity that is too difficult for him and eliminate or substitute. • Give him a specific job that you know he can do. • Provide several alternatives to do the task	• Provide alternative way to access information from text. • Provide alternative way to document his knowledge. • Alternatives (e.g. materials to make art project, recorder to tell facts, software to make slide show, text-to-speech, etc.)

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FEAR OF CHANGE

A + B + C > X = Change

- A = shared dissatisfaction with current state by a critical mass
- B = shared vision of desired state by a critical mass
- C = Practical steps of moving from current state to desired state
- X = Cost of change

-Garmston

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IT IS IMPORTANT TO KNOW:

- That people have real concerns about any new idea or innovation,
- That those concerns cannot be ignored, and
- What those concerns are, in order to respond to them appropriately!

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CREATE GROUPS

- Especially important for women
- Need to "tend and befriend" when under stress
  - Taylor, et.al.

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USE INSTRUCTIONAL COACHING

Instructional Coaching – http://www.instructionalcoach.org/

Without Coaching -- the ideas either never occur or die away as the excitement fades and no new learning or movement occurs.

- Schwartz & Begley (2002), *The Mind and the Brain*

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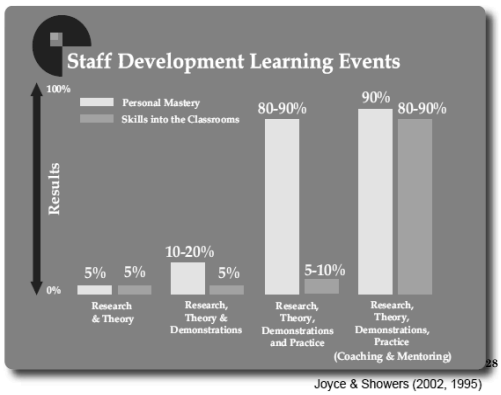

Joyce & Showers (2002, 1995)

COACHING IS DIFFERENT FROM CONSULTING OR COLLABORATING

- **Goal** (transform vs. work together or inform)
- **Focus** (person vs. content)
- **Communication style** (asking vs. telling)
- **Accountability** (teacher vs. team or AT Specialist)
- **Role** (partner and mediator of thinking vs. colleague or expert)

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A VISION WITHOUT A TASK IS BUT A DREAM. A TASK WITHOUT A VISION IS DRUDGERY. A VISION WITH A TASK IS THE HOPE OF THE WORLD.

INSCRIPTION IN A CHURCH SUSSEX, ENGLAND, 1730

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