When Low-Tech Solutions are the Right Solutions

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www.gatfl.org

GATE
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Welcome to the Assistive Technology revolution! The world around us is evolving at an astounding rate. Inclusion is no longer just an idea – it is now a reality for many students. Assistive Technology developments and successful strategies to implement AT have been foundational in this evolution and are a catalyst producing positive life-changing results for students with disabilities. Come learn about what's new and what works in AT along with implementation strategies. We will explore where we were, where we are and perhaps, where we are going. We will also discuss possible solutions to expedite inclusion and knowledge transfer into your classroom.

For Handouts: [http://www.gatfl.gatech.edu/tflwiki](http://www.gatfl.gatech.edu/tflwiki)
AMAC Accessibility is a social change organization on a mission to create affordable services for governmental, private and non-profits organization working with individuals with disabilities. Services include e-text, braille, captioning, assistive technology, office management software and consulting.
We’re here to help Georgians with disabilities gain access to and acquisition of assistive technology devices and assistive technology services so they can live, learn, work, and play independently in the communities of their choice.
Services Include:

1. AT Lending Library
2. AT Evaluations & Training
3. AT Demos
4. Resource and Assistance
5. AT Funding Assistance
6. AT & DME Reuse
Welcome to Tools for Life

Tools for Life, Georgia’s Assistive Technology Act Program, is dedicated to increasing access to and acquisition of assistive technology (AT) devices and services for Georgians of all ages and disabilities so they can live, learn, work and play independently and with greater freedom in communities of their choice.

Tools for Life and the TFL Network work collaboratively together to accomplish our mission through:

- AT Demonstration
- AT Evaluations and Assessments
- AT Funding Options & Education
- Access to the TFL AT Lending Libraries
- AT & Durable Medical Equipment Reuse
TFL AppFinder

Search by:

✓ App Name
✓ Categories

- Book
- Education
- Environmental Adaptations
- Hearing
- Cognition, Learning, Developmental
- Navigation
- Personal Care and Safety
- Productivity
- Communication
- Therapeutic Aids
- Vision
Tools for Life AT Demo Lab

- Tablets
- Vision Items
- DME
- Communication
- Games
- Software
- Switches
- Keyboards
Low Tech AT Devices
Low Tech Solutions

• Built up grips
  – Variety
  – Create your own using tennis balls
• Larger / thicker pencils
• Electronic Spellers
  – Franklin Spellers
Low Tech Solutions for Writing

Writing Solutions:

– “The Penagain takes a novel ergonomic approach to ink pen design. The body of the pen is shaped like a "Y" creating a cradle for the index finger to rest in.”
  http://ergonomics.about.com/od/buyingguide/fr/frpenagain.htm

– Wide barrel pens can make it easier for some people to write due to their contoured shape. With a Fat Ergonomic Pen there’s more surface area to grip which makes it easier to write.
Writing Solutions:

- “Stabilo’s” goal is to make writing and drawing easier, so they work closely with ergonomic and fine motor specialists to achieve the optimum ergonomics results. Their products low weight and ergonomic shape, the hand muscles do not tire too quickly, as only a light pressure is required, eliminating the pain of hand cramps. Their pen and pencils even encourage good posture, which can improve academic performance in children and students.”

Live Scribe Pen

- Records what it hears and what you write
- Uses specific paper for playback
- Connects to computer by USB for saving
- Tap on note and playback from there
- Jump forward and back in notes
- Dictionary
- Translation Apps
- Purchase Apps online
- Demo
Speech Recognition Software

- Turn spoken words into text
- Connect with the timing of your thoughts
- Dictation speed 70 to 100 words per minute
Word Q/ Speech Q

• Software that has built-in word prediction
• Suggests words
• Spoken feedback to hear what was written
• Speech Q is a plugin for Speech Recognition

• 30 day free trial
http://www.goqsoftware.com/trial/
Lunchtime Solutions

**Bendable Fork/Spoon**
- Makes it easier to put food on fork/spoon
- Makes it easier to put food into mouth
  - Do not have to twist wrist
  - Built up eating area

**Liftware Spoon**
- Calibrates to tremors from ataxia or other neurological disabilities
- Machine washable
Eating for success

Anti-Slip Placemats
Keep plates or any item stable
Cut to fit

Gripables
Comfortable Cutlery

Freedom dinnerware
- Accommodates many disabilities
- Suction keeps plate from moving
- Helps with getting food on utensils
What is Ergonomics

• Greek word: Laws of Work
• Science that studies work in various environments, and the tools used to perform tasks in those environments
• **Goal:** match the capabilities and “limitations” of the human body
Ergonomics in Educational Environments

- Students present with unique physical characteristics and abilities
- Goal is to fit the task, equipment or environment to the student
When is an evaluation needed

- Proactive/Prevention
- When working posture is affecting performance, attention, and creating pain
- **TIP:** Consider incorporating ergonomic principles into the IEP to support educational goals.
  - Helps with breathing, circulation, attention, concentration & ultimately learning
  - Must consult with a trained professional
  - Educate everyone – student, family, teachers, paraprofs
Ergonomics in the Classroom

Areas to Evaluate

• Equipment that can cause postural issues
  – Chair
  – Monitor
  – Desk
  – Keyboard & mouse
Poor Sitting Posture

- Inhibits blood flow
- Creates muscle shortening
- Stresses back muscles and compresses spine
- Can inhibit learning
- Compresses diaphragm
  - Affects breathing
  - Voice quality
Ergonomics in the Classroom
Ergonomics in the Classroom

• Position will vary depending on individual and the task

Completerehabsolutions.com
Tilt Desks

• Positioning the work closer the student can improve visual access
• Promote upright trunk posture
• Improve head posture
Chairs

• Proper height for desk or height adjustable if possible
  – boost height in a non-adjustable chair

• Thighs should not be in contact with the front edge of the seat
  – 2” to 3” between front edge of chair and back of knees
  – Use firm pillows or cushions to reduce seat depth

• Adjust the chair so feet are flat on the floor and thighs parallel to the floor
  – use foot rest or seat cushions to achieve proper posture

• wheelchair user feet should make good contact with footplates
Other Seating Options

Move Small Ergonomic Stool for Children

Seating Disc

Stay n place ball
BackJoy

- Corrects posture; stabilizes pelvis when sitting
- www.amazon.com ; $25
Unsupported feet; trying to anchor
Low Cost Solutions
Seating

- Feet supported to stabilize trunk and pelvis
- Wheelchair users need to have feet supported on footrests
  - Use Dycem, shelf liner, cork or rug gripper to keep feet from slipping
  - Phonebooks
  - Boxes
  - Yoga blocks (4”)
- Pillows, towels and foam can help with providing trunk support and comfort

http://tnt.asu.edu/ideas/support/inexpensive-bolsters
Footrest Options

$125

$116
Movement Helps Learning!

• 2003 study in American Journal of Occupational Therapy concluded that students with ADHD using ball chairs were able to sit still, focus and write more words legibly

• 2007 Mayo Clinic study concluded that a chair-less classroom increased attention and improved learning

• 2008 University of Central Florida study
  – children need to move to focus during a complicated mental task
  – especially those with attention-deficit/hyperactivity disorder (ADHD)—fidgeted more when a task required them to store and process information rather than just hold it.
Fidget Footrests

- Standing desks can help students who find sitting still difficult
- Use of dynamic footrests can help release energy and improve focus

http://classroomseatingolutions.com/products.html
Mobile devices

Can also contribute to poor posture and repetitive motion injuries

Neck strain, nerve compression
Positioning Matters
Pros and Cons?
My Question to You:
What have You Learned today?
Thank You!
Contact the Tools for Life Team

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