

# Tools for Life: Your Assistive Technology Act Program

***Presented by:*** Gina Gelinas and Sam Peters  
| Tools for Life | Center for Inclusive  
Design and Innovation | College of Design |  
Georgia Tech

CREATING THE NEXT®

# Goals for This Session

The world around us is evolving at an astounding rate. Assistive Technology (AT) developments have been foundational in this evolution and a catalyst for producing positive life-changing results for individuals with disabilities.

This session will take a closer look at:

- Tools for Life Core Activities
- Accessing the TFL Network and Community Partners
- Review Funding Resources
- Understanding Assistive Technology
- Defining “Low/Light Tech” to “Mid/High Tech Solutions”
- Research on AT and Transition

# The Center for Inclusive Design and Innovation (CIDI)



**Center for Inclusive Design and Innovation** creates practical solutions that work, with a focus on utility, ease of use, and high quality.

- **Accessibility Consulting** focuses on organizational accessibility needs with evaluation, technical assistance, customer support, and website accessibility solutions.
- **Braille Services** produces customized projects from both print materials and electronic text including partial books and chapters or graphics only using cutting-edge technology.
- **Captioning Services** makes classrooms, meetings, labs and other audio environments fully accessible for deaf or hard-of-hearing.
- **Professional E-Text Producers** provide high-quality e-text in many formats such as PDF, DOC, DAISY, and HTML.
- **Certified Assistive Technology team** provides on-site and remote assessments, demonstrations, training and technical assistance for education, work, and daily living environments.

# Tools for Life

Tools for Life (TFL), Georgia's Assistive Technology Act Program, provides Georgians of all ages and disabilities the opportunity to 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.



# Tools for Life Core Services



As the Assistive Technology Program in Georgia, we are charged with core activities:

1. Information and Assistance
2. AT Assessments
3. AT Demonstrations
4. AT Equipment Lending
5. Training (Individuals and Groups)
6. Funding Education and Solutions
7. AT Reuse

# Tools for Life Website

**Georgia Tech** **TOOLS for LIFE**  
Georgia's Assistive Technology Act Program

HOME ASSISTIVE TECHNOLOGY TFL NETWORK CALENDAR OF EVENTS YouTube f Search our Site Go

TRAINING  
FUNDING  
PUBLICATIONS  
TFL WIKI  
MEET THE TFL TEAM  
MEET THE ADVISORY COUNCIL  
DIRECTIONS/MAP  
JOIN OUR MAILING LIST  
HOW CAN WE HELP?  
AT REFERRALS

Welcome AT Services Try AT Get AT AT Guides Research

  
Learn More about AT So You Can Make Informed Decisions

• • • • •

**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

**GATE 2018 ATTENDEE REGISTRATION**  
DEC 7 Georgia Tech Student Center

**GATE 2018 EXHIBITOR REGISTRATION**  
DEC 7 Georgia Tech Student Center

**WEBINARS**  
• Current Webinar Schedule  
• Webinar Archives

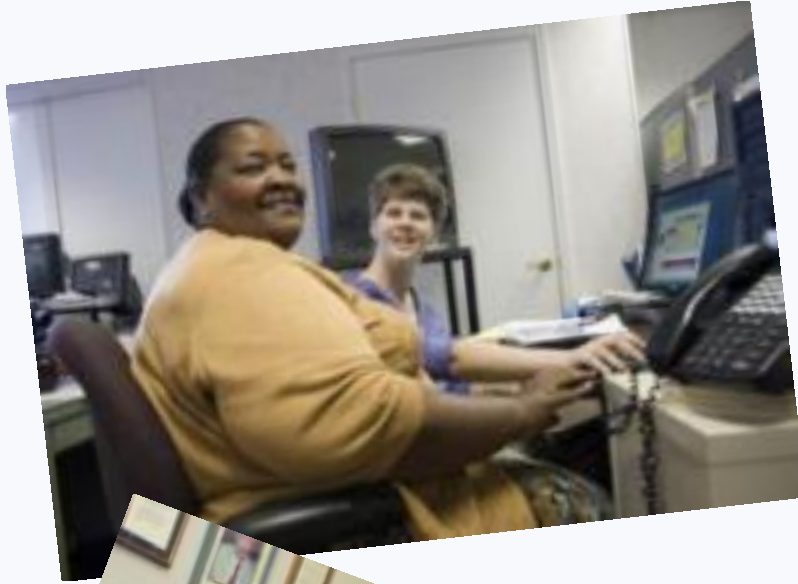
**TOOLS FOR LIFE APPFINDER**  
  
...for Living, Learning, Working, and Playing.

**AT ONLINE EXCHANGE**  


**AT FUNDING GUIDE**  
DOLLARS & SENSE



# Who Are We Serving? Every 1 in 5



People with disabilities are the largest minority group in America

This group cuts across racial, ethnic, religious, gender and age boundaries

Anyone can become a member of this minority group at any time

# Guiding Principle and Public Law



Disability is a natural part of the human experience and in no way diminishes the right of individuals to:

- A. live independently;
- B. enjoy self-determination and make choices;
- C. benefit from an education;
- D. pursue meaningful careers; and
- E. enjoy full inclusion and integration in the economic, political, social, cultural, and educational mainstream of society in the United States.



# Assistive Technology Services and Strategies

# What is Assistive Technology?

- Assistive Technology (AT) is any item or piece of equipment that is used to increase, maintain or improve the functional capabilities of individuals with disabilities in all aspects of life, including at school, at work, at home and in the community.
- Assistive Technology ranges from no/low/light tech to high tech devices or equipment.



# Team Approach

**Person with the disability**

Circle of support/Family of choice

Teachers

Technologist

Occupational Therapist

Speech-Language Pathologist

Physical Therapist

Engineer

Neighbors

Bus drivers



# Assistive Technology Services



Assistive Technology Services are any services that directly assists an individual with a disability in the selection, acquisition, or use of an assistive technology device. These services include:

- Evaluating
- Providing devices
- Selecting, Designing, Customizing
- Maintaining, Repairing
- Coordinating
- Training/Technical Assistance – student, family, and school service providers

# AT Assessments

- Comprehensive AT assessment
- Certified AT team
- \$450
  - Written report and recommendations

## Area of focus:

- Workplace
- Ergonomics
- Hardware/Software
- Strategies



# AT Demonstrations

- Free of charge!
- Learn about devices
- What will work best?
  - Assist in making informed choices
  - Consumer's choice in devices



# AT Lending Library

- Try before you buy!
- Loans are usually for 3 to 4 weeks
- Training on items before borrowed, if needed



# TFL AT Solution and Access Labs

- Tablets
- Vision items
- Durable Medical Equipment (DME)
- Communication devices
- Gaming solutions
- Software
- Switches and Keyboards
- Aids for daily living
- Environmental Control/Internet of Things
- 3D printed technology



# Your TFL AppFinder: What Can I Find?



Search by:

- ✓ App Name
- ✓ Categories
  - Books/Reading
  - Education
  - Environmental Adaptations
  - Hearing
  - Vision
  - Navigation
  - Cognition, Learning, and Development
  - Personal Care and Safety
  - Productivity
  - Communication
  - Therapeutic Aids



# Funding Solutions and Resources



# Credit-Able



Georgia's alternative financing  
program for assistive technology  
(AT)

Thanks to a partnership between  
Center for Financial  
Independence and Innovation  
(CFII) and Tools for Life



# Why Credit-Able?



Flexibility

Personal

More accessible

Build/re-build credit

You save money



# Eligibility Criteria



**Be a resident of Georgia**

**AND**

**A person with  
a disability**

**or**

**A family  
member/  
guardian of a  
person with a  
disability**

**or**

**An employer of a  
person with a  
disability**

**Able to pay back the  
loan**

**AND**

**Using the loan for AT**

# First \$TEP Program



For Georgians with disabilities

Small low interest loans to establish  
or repair credit

Can be used for anything

4% interest

\$1,000 max

Max term of 18 months



The collage features a book and an open magazine. The book, 'Georgia's Assistive Technology and Funding Guide', is a Financial Educational Services Resource from the Credit-Able Program at Tools for Life. The magazine, 'Online Resources', lists several organizations: dollars & sense, G-Trade, Pass It On, iHra, The National Veterans Foundation, AV Applevis, Friends of Disabled Adults and Children, and fodac. Each entry provides contact information and a brief description of the organization's services.

- Centers for Independent Living (CIL)
- Aging & Disability Resource Centers (ADRC)
- Area Agencies on Aging (AAA)



# Training and Outreach

# Info and Assistance

## Phone

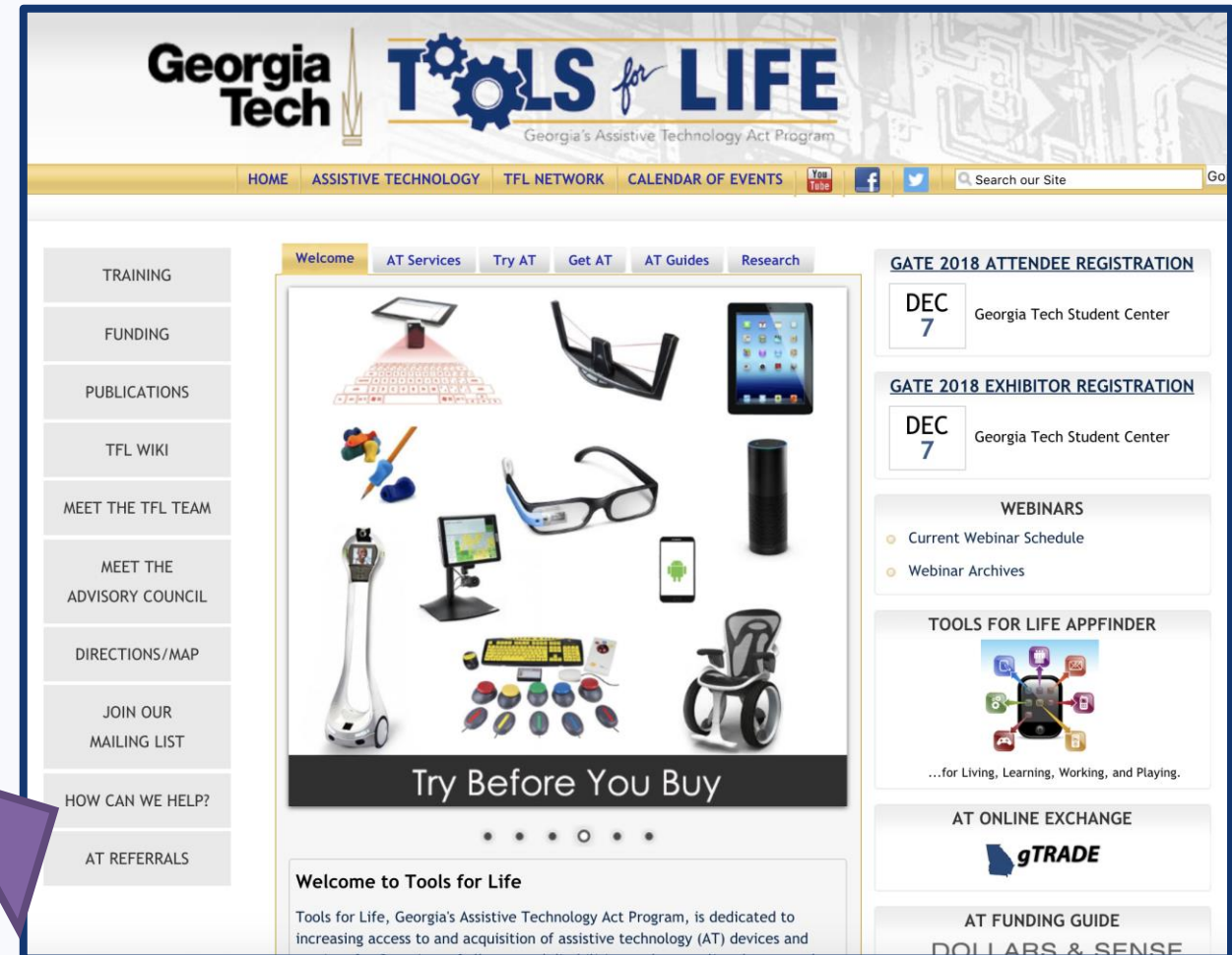
- 404-894-0541

## Email

- [info@gatfl.gatech.edu](mailto:info@gatfl.gatech.edu)

## How Can We Help?

- Online form
- Gives us information on what kind of assistance is requested



# Outreach Materials



## Take-home information

- Services
- Resources
- Contact

## Useful swag

- Parking violation
- Jar gripper

★ We think about accessibility on all levels



# Smart and Accessible Design

## Simple Accessibility Tips:

### Typeface

- *Use Sans-Serif*
- *Letters are clearer*

### Grid

- *Align text and images to a grid*
- *Reading order is simpler, no jumbled layout*

### Contrast

- *Light on dark, or Dark on light*
- *Benefit those with low vision, color blindness, or other visual disabilities*

### 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  
AT Training (Individual)  
AT Training (Groups)

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# Social Media



Relevant news

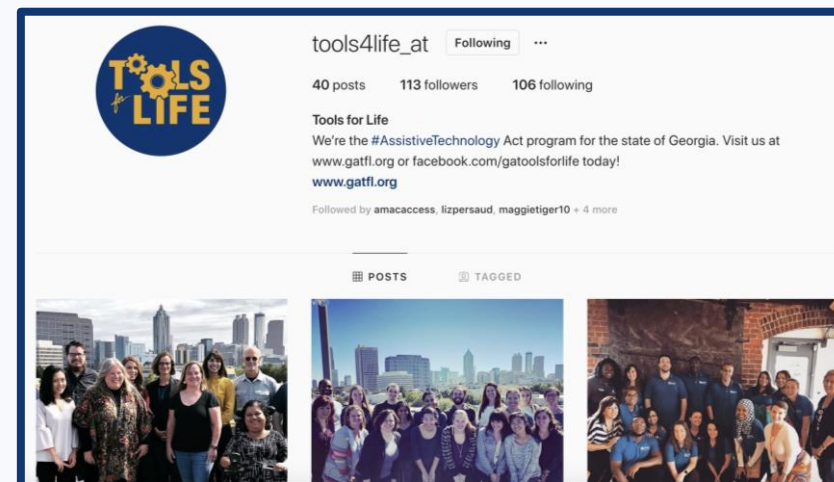
Emerging AT

Conference and webinar announcements

Photos of events and group visits

☆ Accessibility is important

- Alt text now available across all platforms!



# Training

Training activities include but are not limited to:

- In person or virtual trainings
- Webinars
- Internal and external partner trainings

Variety of Topics:

- Assistive Technology (specific for disabilities)
- Funding
- Emerging Tech/Trends
- Disability awareness

More!



# Tours

All tours are scheduled

Small or large (up to 60) groups

What you see:

- AT Solutions and Access Labs
- Braille production
- Captioning & Described Media Services
- E-text
- 3D Printing

Variety of groups visiting:

- Disability service organizations
- Government agencies
- FEMA
- Office of Civil Rights
- Statewide assistive technology programs
- School Systems



# TFL AT Labs on the go!

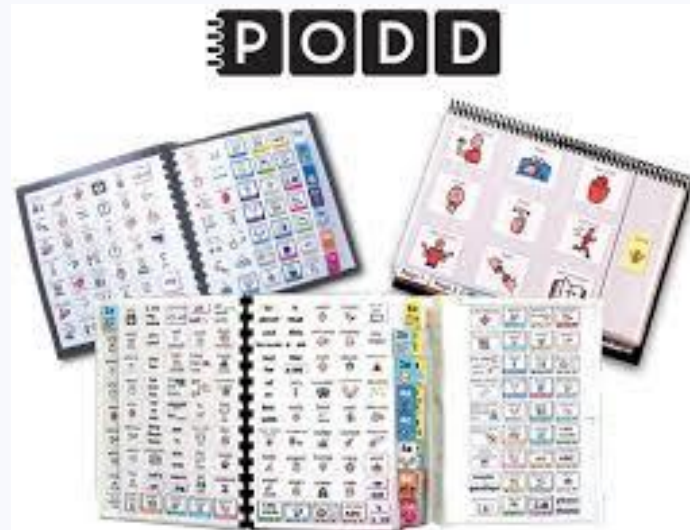


Tools for Life hosted 17 AT Labs in Georgia and across the country in 2018!

- AT Labs provide an on-site experience for event participants
- On site, one on one demonstrations of equipment
- Provide presentations in the Lab
- Learning Disabilities Association of America (LDA)
- Coalition On Adult Basic Education (COABE)
- Abilities Expo
- Institute Designed for Educating All Students (IDEAS)
- HCBS



# Tools for Life Training: Face to Face



# Statewide AT Conferences: GATE 2019



## Georgia Assistive Technology in Education (GATE) Annual Seminar

- Friday, December 6, 2019
- Georgia Tech Student Center
- This event is open to all Georgia educators, parents, students with disabilities, family members and anyone else interested in learning more about assistive technology in education!



# Statewide AT Conferences: IDEAS 2019

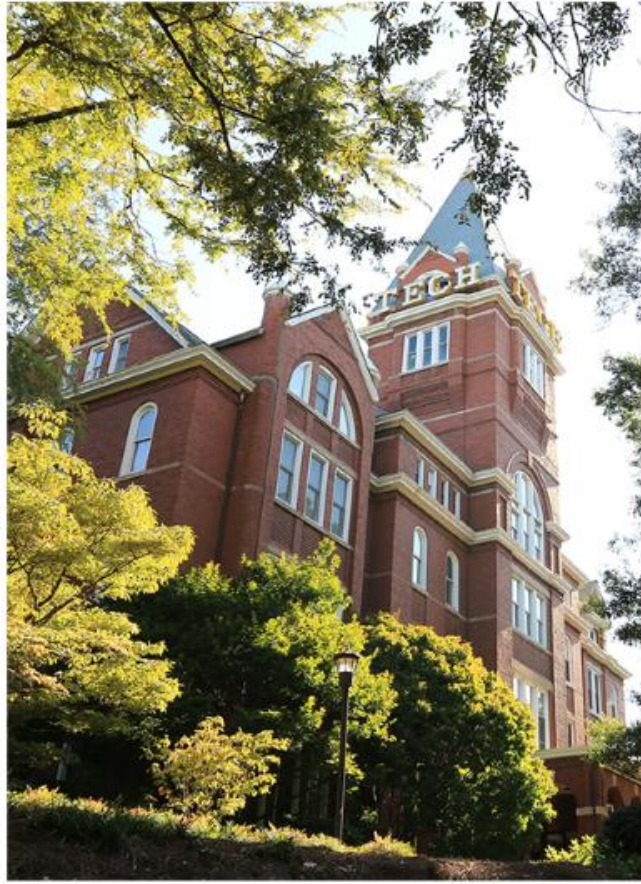


**Institute Designed for Educating All Students (IDEAS)**

**Week of June 4-7, 2019**

**St. Simons Island: Epworth**

Georgia's only teacher conference supporting the education of students with disabilities.



# Assistive Technology Research

According to the *National Longitudinal Transition Study(NLTS2) - 2012*:

- 99.8% of the students who received AT graduated
  - Only 79.6% of those who did not receive AT graduated.
- 80.9% of students who received AT attended a post-secondary institution
  - Only 40.1% of students who did not receive AT attended a post-secondary institution.
- 80% of those who received AT had a paying job after high school
  - Only 50.8% of those who did not receive AT had a paying job.

## Background

- Assistive technology (AT) is proving to be a staple tool that students with disabilities are using to achieve success in post-secondary settings.
- Students who qualify have access to textbooks in electronic format. Students use computer and tablet-based software to help them read their textbooks and gain comprehension.
- It has been assumed that students who have learned to use these AT tools while still in high school may have a distinct advantage over students who come to college without having experience with these tools.
- However there is little evidence to confirm this assumption.

## Research Questions

In order to examine this assumption and to gain insight into the use of AT by college students, we propose to invite students who have made use of the CIDI services since 2014 to take part in a survey to determine the following:

- What percentage of students with disabilities who are referred to CIDI are coming prepared to use AT?
- How successful are these students in college?
- How does the success of these students who come prepared to use AT compare to the success level of students who are not prepared to use AT?
- Have the AT services provided by CIDI been effective and helpful to these students?

# What percentage of students referred to CIDI are coming prepared to use AT?

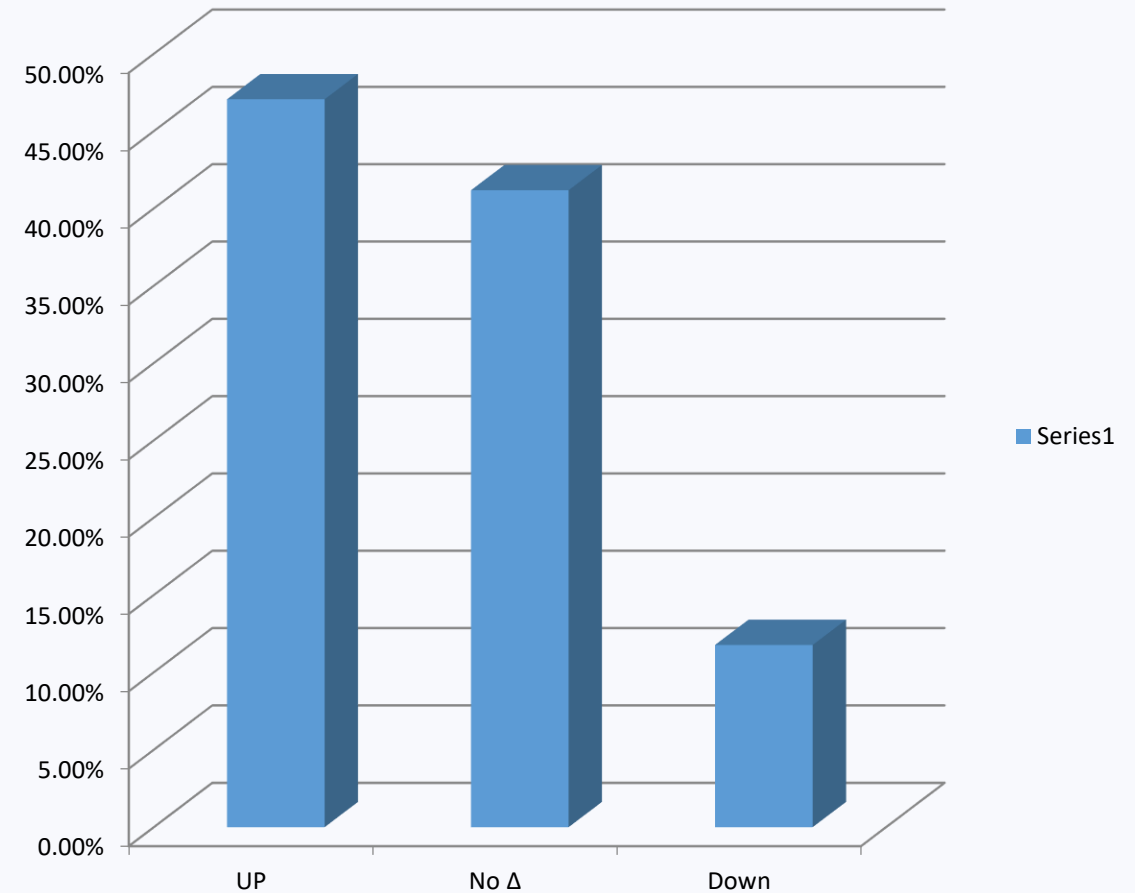
In the CIDI study:

- 57% coming to post-secondary education expressed a level of mastery of their AT.
- 43% coming to post-secondary education did not report mastery of their AT.

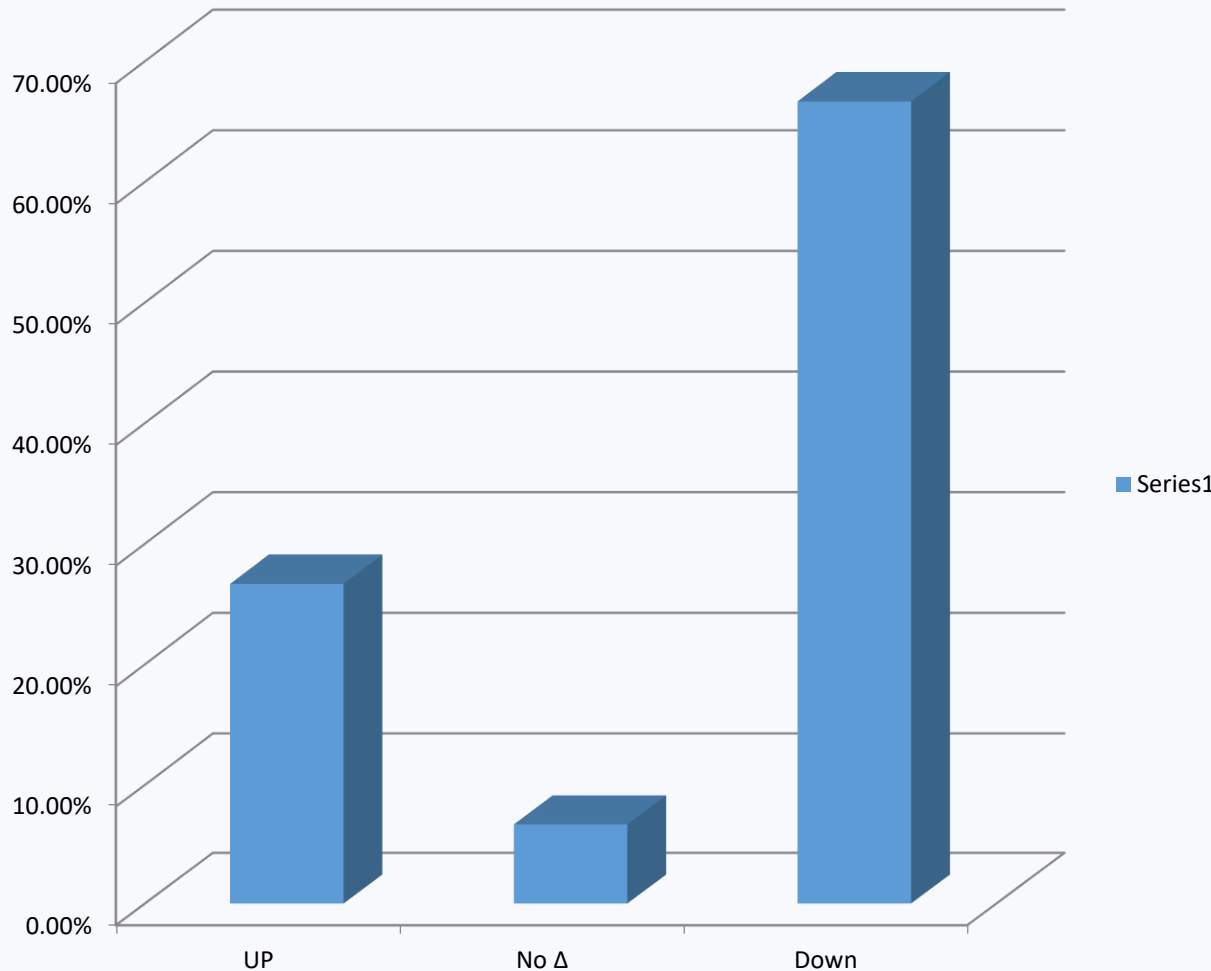
# Research: Mastery of AT in High School

Change in GPA from High School to Post-Secondary among students who mastered AT in high school:

- GPA went up: 47%,
- GPA showed no change: 41%,
- GPA went down: 11%



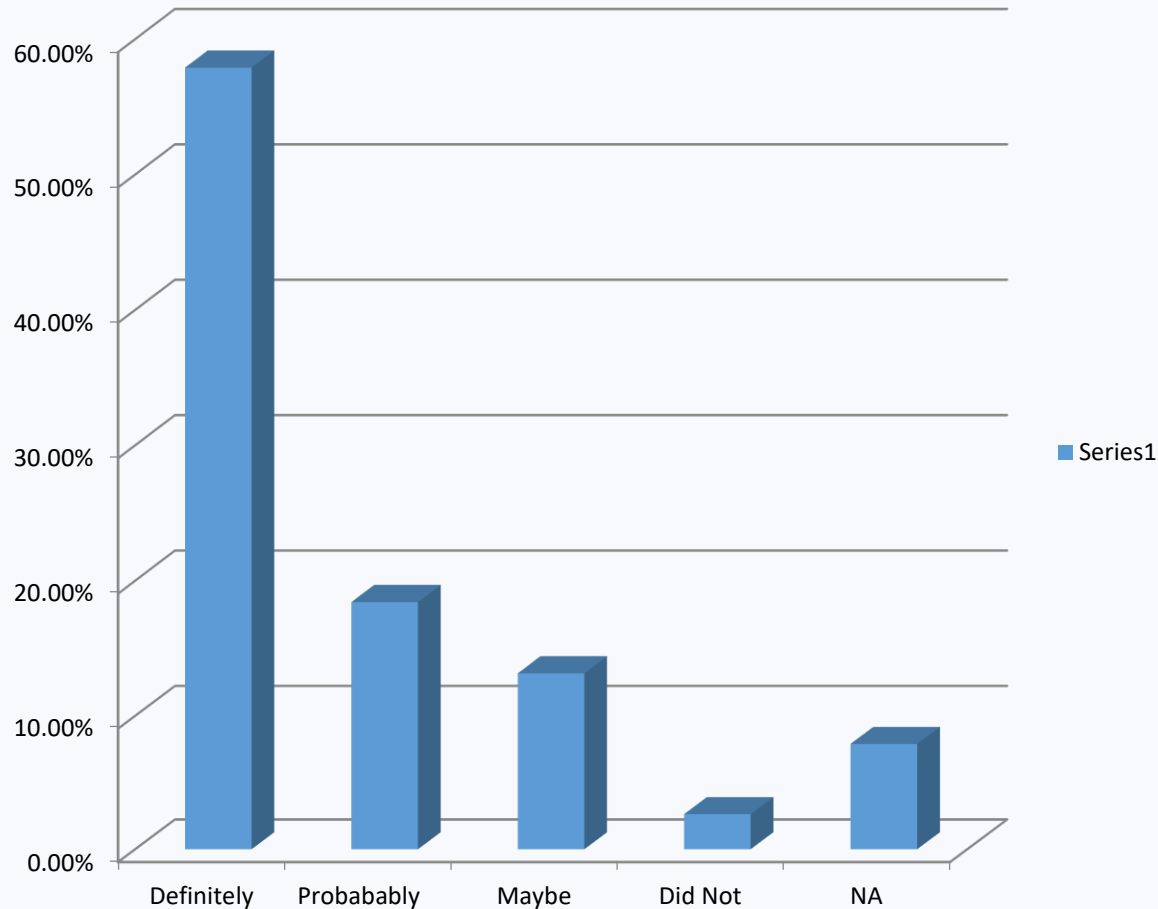
# Research: Mastery of AT in High School (2)



Change in GPA from High School to Post-Secondary among students who had not mastered AT in high school:

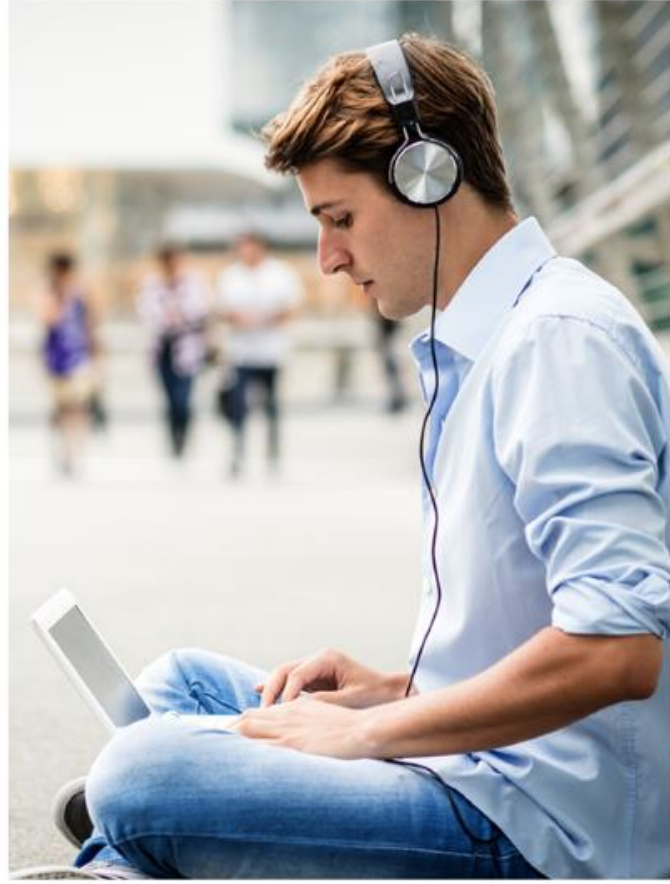
- GPA went Up: 27%
- GPA showed no Change: 7%
- GPA went down: 67%

# Did Students Feel AT Made a Difference? (students with high incidence disabilities)



Among students with high incidence disabilities :

- Definitely 58%,
- Probably 18%,
- Maybe 13%,
- Not 3%,
- No Answer 8%

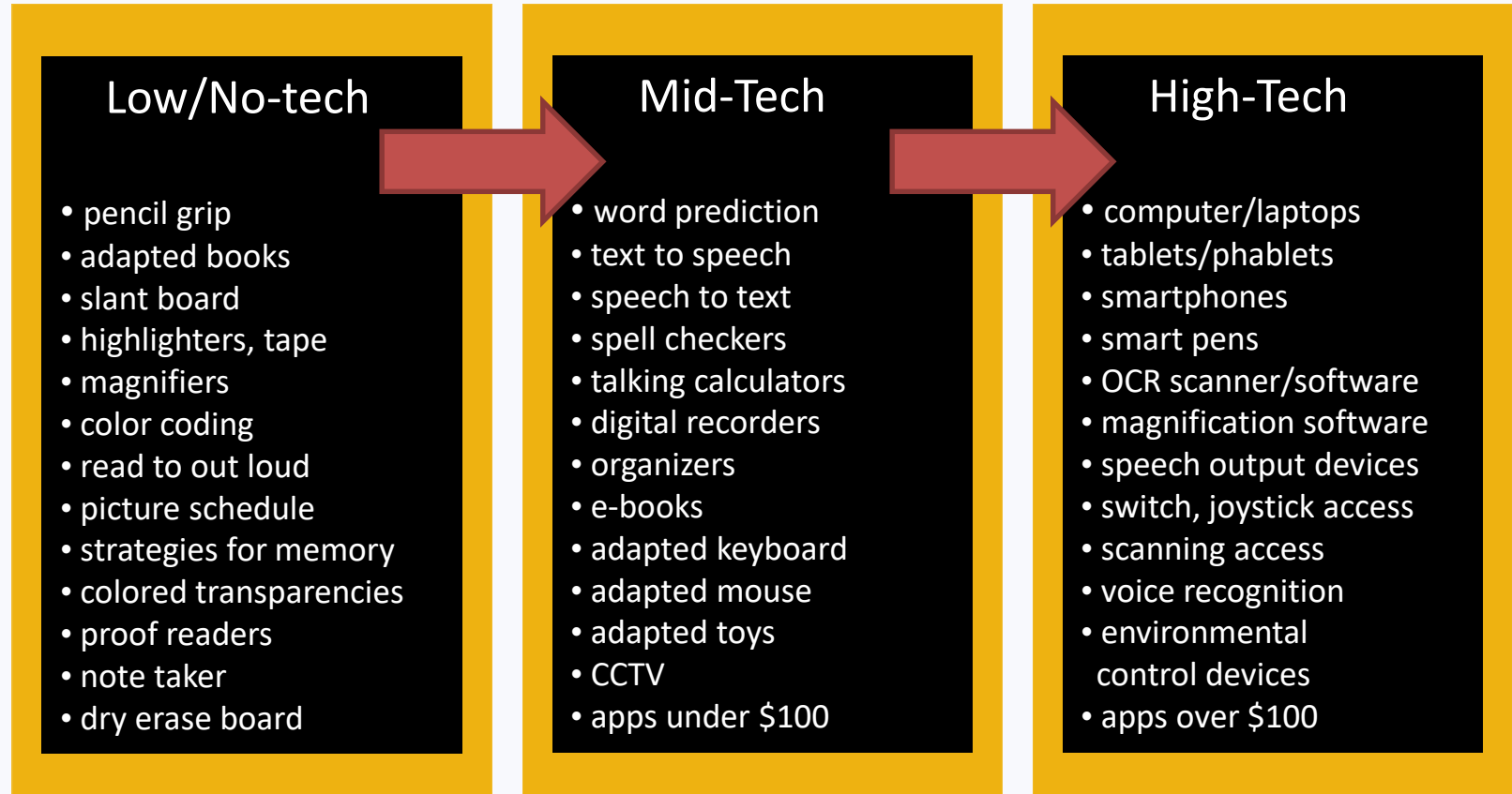


# What AT is the Right AT?

# Assistive Technology Continuum

## Observations and “Hanging out with Intent”

Assistive Technology is a ***continuum of tools, strategies, and services*** that match a person's needs, abilities, and tasks.



# It's Not About You

- Ask!
- Environmental factors
- Placement
- Low tech options are just as important as mid/high tech (also more affordable)
- Spatial considerations
- What has the student already used?



# Asking Avoids Abandonment

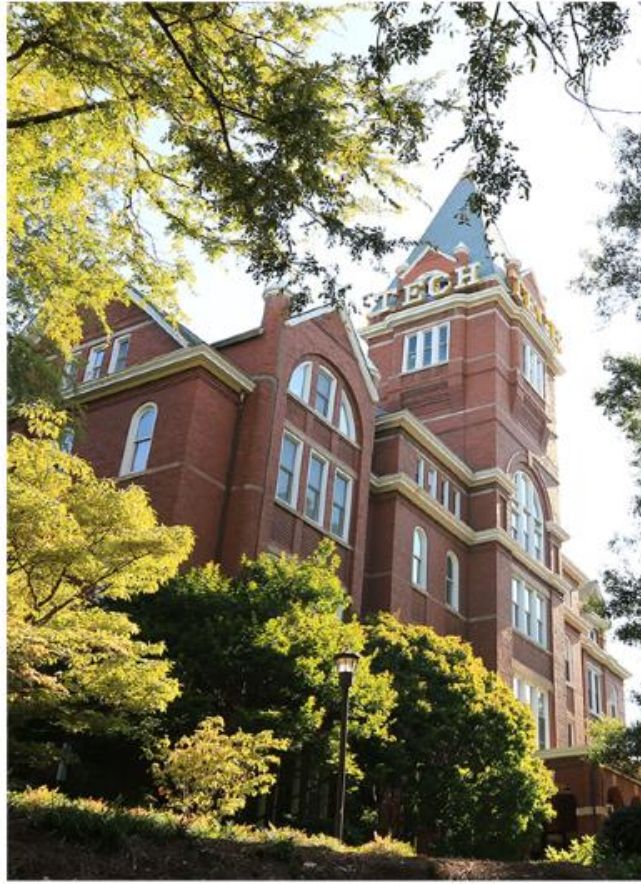


# Predictors of Assistive Technology Abandonment



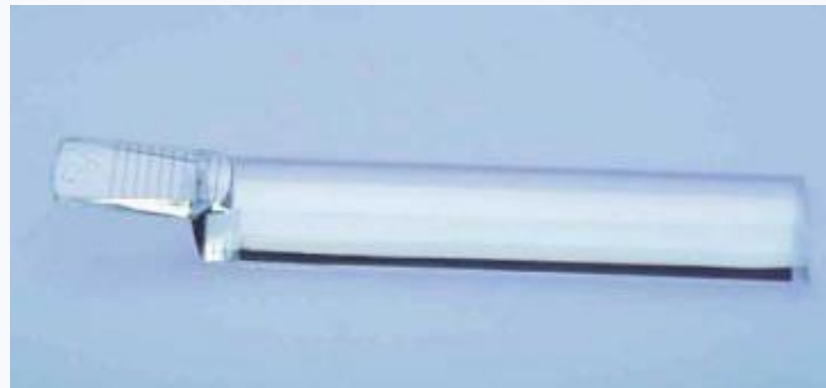
- Two hundred twenty-seven adults with various disabilities responded to a survey on device selection, acquisition, performance, and use.
- Results showed that 29.3% of all devices were completely abandoned.
- Mobility aids were more frequently abandoned than other categories of devices, and
- Abandonment rates were highest during the first year and after 5 years of use.
- Four factors were significantly related to abandonment—lack of consideration of user opinion in selection, easy device procurement, poor device performance, and change in user needs or priorities.

*Study by B. Phillips and H. Zhao*



## Examples of Assistive Technology!

# Inexpensive and Reliable Options



# Learning Aids - Spelling

- Spelling
  - Personal spelling list
  - Hand-held spellchecker
    - Franklin Talking Dictionary
  - Word processing program with built-in spell checker
    - Microsoft Word



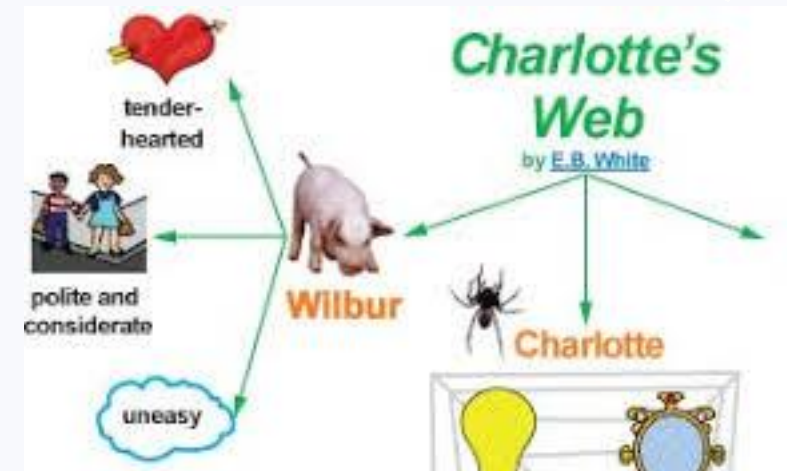
# Learning Aids - Writing

- Learning Aids (continued)
  - Writing
    - Graph paper
    - Pencil grips
    - Adapted tape recorder
    - Talking word processor
    - Word prediction software



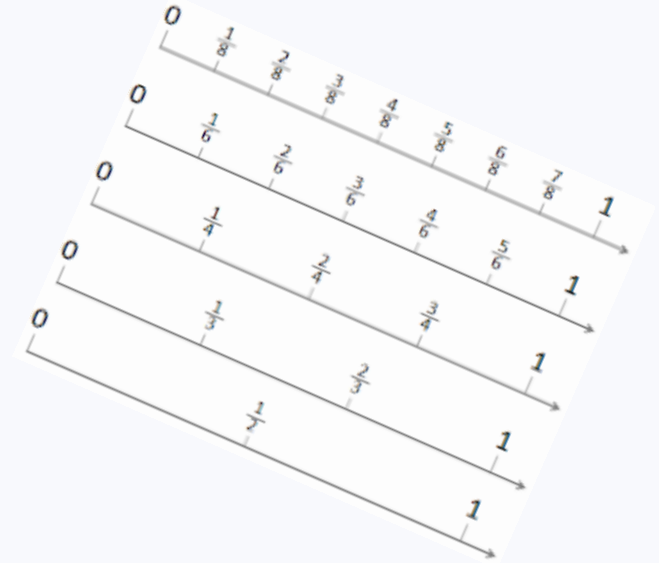
# Learning Aids – Writing (2)

- Learning Aids (continued)
  - Writing
    - Outlining and webbing software
    - Online Grammar Checkers
      - Grammarly
      - Ginger Software
    - Voice recognition software
      - Dragon Naturally Speaking
      - Microsoft Word 2000 or later



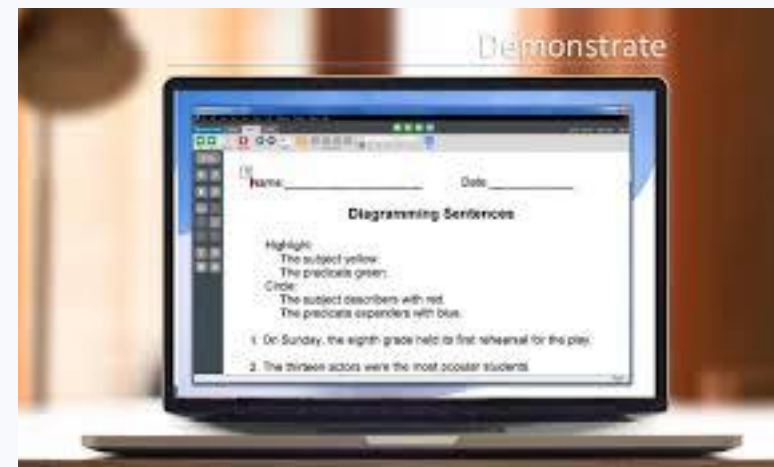
# Learning Aids - Math

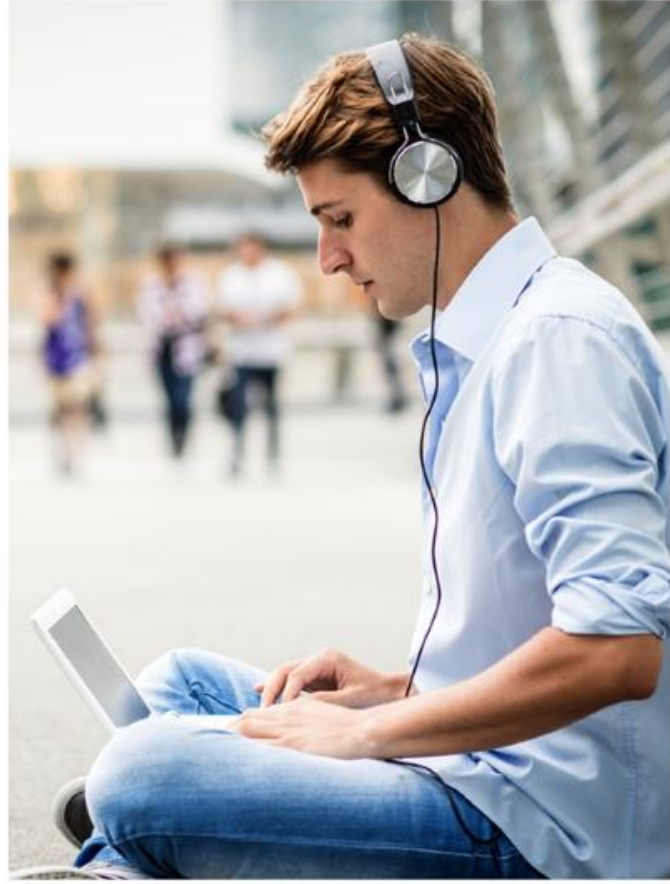
- Learning Aids (continued)
  - Math
    - Number lines
    - Graph paper
    - Calculator
    - On-screen electronic worksheet
    - Equatio by Texthelp



# Learning Aids - Reading

- Learning Aids (continued)
  - Reading
    - Personal word list
    - Colored overlay
    - Hand-held spell checker/ talking dictionary
    - Audio-taped textbooks
    - Talking word processing program
    - Advanced Reading Aid





# Access

# Computer Access

- Computer Access: Input
  - Keyboard adaptations
    - Keyguard
  - Adaptive pointing devices
    - Hand-held pointer
  - Keyboard alternatives
    - Enlarged keyboards
      - Big Keys Keyboard
    - On Screen keyboards
      - Windows 10



# Computer Access (2)

- Computer Access:  
Input (continued)
  - Mouse Alternatives
    - Trackball
    - Joystick
    - Switch Access
    - Voice Recognition



# Ergonomics

- Humans present with unique physical characteristics and abilities
- Goal is to fit the task, equipment and environment to the person
  - Design tasks
  - Work spaces
  - Tools/Equipment
  - Lighting



# Contributing factors for poor positioning (Classroom)

- Non-adjustable desks; the layout of the desk does not fit the user
- Lack of knowledge on how to set up the desk properly according to the user's needs ( both physical needs and job tasks)
- Poor working habits that remain uncorrected
- Fatigue and vision issues

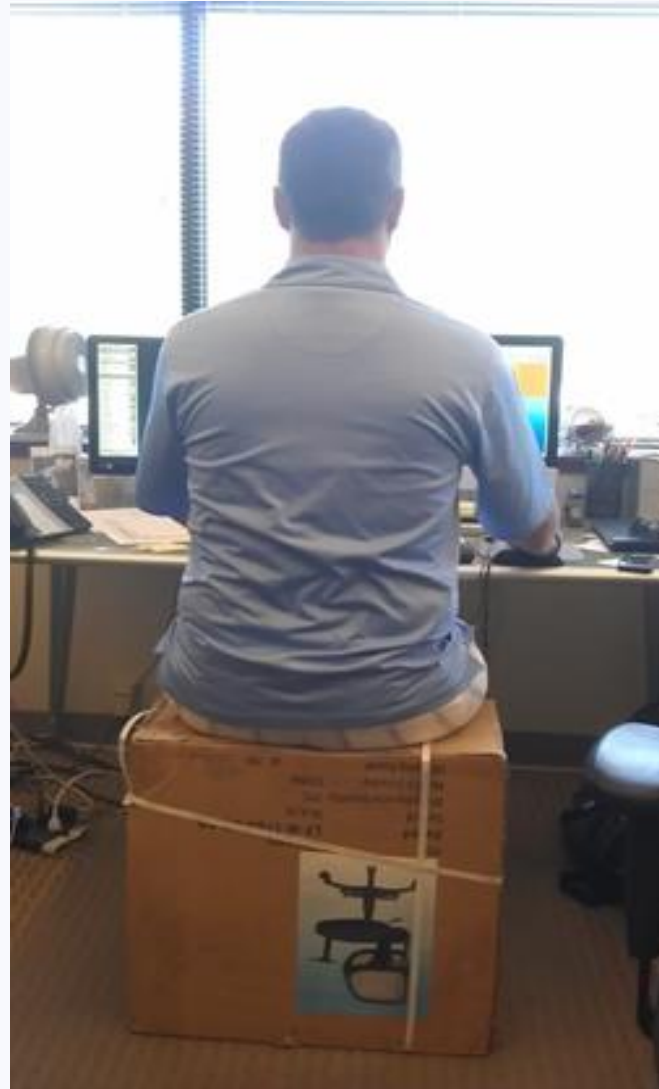


# Poor Sitting Posture

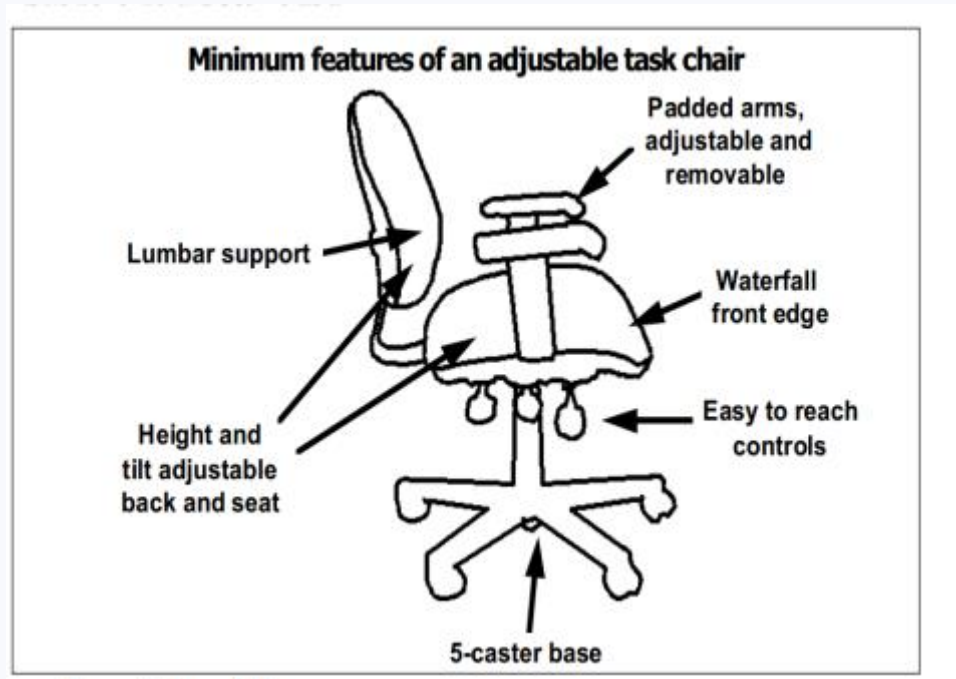
- Inhibits blood flow
- Creates muscle shortening
- Stresses back muscles and compresses spine
- Can inhibit focus
- Compresses diaphragm
  - Affects breathing
  - Voice quality



# Solutions: Chairs



# Solutions: Guidelines



[www.lni.wa.gov](http://www.lni.wa.gov)



# Recreational AT

- Recreation is a necessity
- Numerous benefits – Cognitive, Mood, Physical, etc.
- Recreation comes in many forms – Video Games, Card Games, Board Games, Playing Music, Sports, Exercising, Crafts, etc.
- There are options and technologies to make each of these activities accessible.



# Gaming Myths

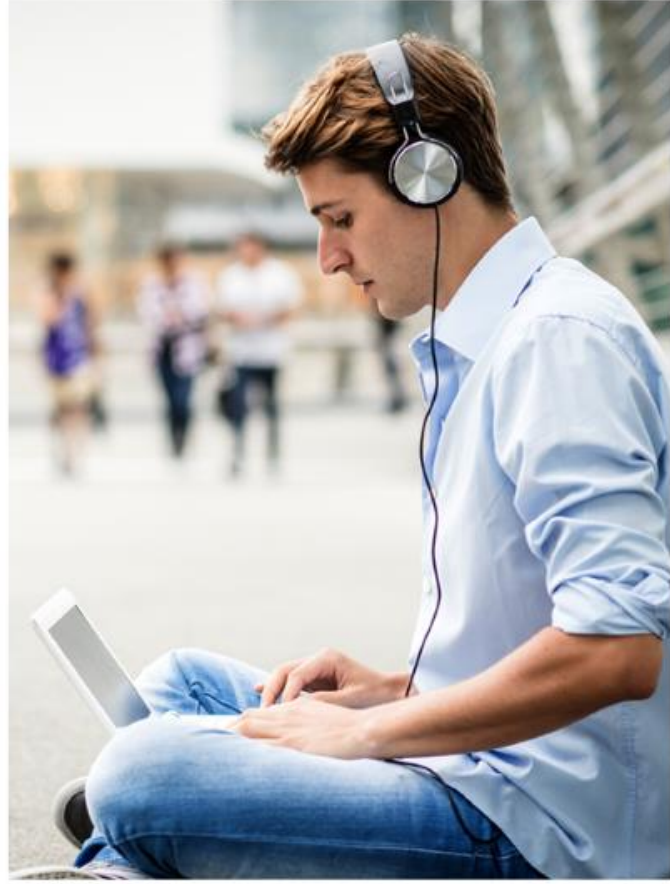


Playing video games is a wasteful past time with no real benefits and is detrimental to one's health and mental well being.

# Why is Gaming Important?



- Increased Cognitive Function
- Pain Management
- Stress Reduction
- Hand-eye coordination
- Memory
- Attention
- Mood
- Decision Making
- Social Connectedness



# Transition

# Transition: What's Next?

- Work
- College
- Technical school
- Home



# What are the tasks?



- Reading and comprehension
- Writing
  - Capturing thoughts
  - Spelling
  - Organization
- Note taking
- Getting Organized



# Know Yourself?

What are your strengths?

What are your weaknesses?

What strategies do you use  
to help you be successful?



# Questions



# The Tools for Life Team



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## Tools for Life, Georgia's Assistive Technology Act Program

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@tools4life\_at

Disclaimer: Produced by Tools for Life (TFL), which is a result of the Assistive Technology Act of 1998, as amended in 2004. TFL is a program of the Georgia Institute of Technology, College of Design, Center for Inclusive Design and Innovation (formerly AMAC Accessibility) and was made possible by Grant Number H224C030009 from the Administration for Community Living. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of HHS.