

USING ASSISTIVE TECHNOLOGY TO ENHANCE OCCUPATION

SHANNON LAVEY, MS, OTR
MARLA ROLL, MS, OTR

Yamagata Prefectural University of Health and Sciences
March 24th, 2015

Assistive Technology Resource Center (ATRC)



Marla Roll, MS, OTR
Director – Assistive Technology Resource Center
Assistant Professor, Department of Occupational
Therapy



Shannon Lavey, MS, OTR
Service Coordinator and
Provider



Allison Kidd
Assistive Technology IT Coordinator
Accessibility Specialist and Trainer

Definition of Assistive Technology

- A broad range of devices, services, strategies and practices that aid in assisting individuals with disabilities.
- An AT device is any item, piece of equipment, or product system that is used to increase, maintain or improve functional capabilities of individuals with disabilities.

-Cook & Hussey

Assistive Technology Resource Center



- ▶ **Mission of ATRC is to ensure equal access to technology and electronic information for CSU students and employees with disabilities.**
- ▶ **Disability groups served**
 - ▶ Physical (congenital & acquired)
 - ▶ Sensory (vision & hearing)
 - ▶ Non-Apparent impairments (TBI, LD, ADD, ADHD, Mental health)

ATRC Services

- **Services**
 - **Direct (Students & Employees) :**
 - Assessments, Training, Equipment Loans, Resources, Accommodations
 - **Consultation and Education (faculty & campus units):**
 - regarding ergonomic, ADA, and universal design considerations in technology environments
 - Assistance with making programs, information and course material accessible for students
 - Assistance with making web content accessible
- **Experiential learning of AT for OT Students**
 - ATRC hires OT students to work in the center
 - Provides assistive technology content/ labs in the overall curriculum
 - Provides Level I and II fieldwork opportunities

ATRC and Occupation

- The ATRC's goal is:
- to increase student **participation** in school-related activities and enhance academic **performance**.
- to increase employee **participation** in work related tasks and enhance work related **performance**.

Student Services

- Occupations Addressed:
 - Reading
 - Writing
 - Note-taking
 - Test-taking
 - Accessing computers and technology

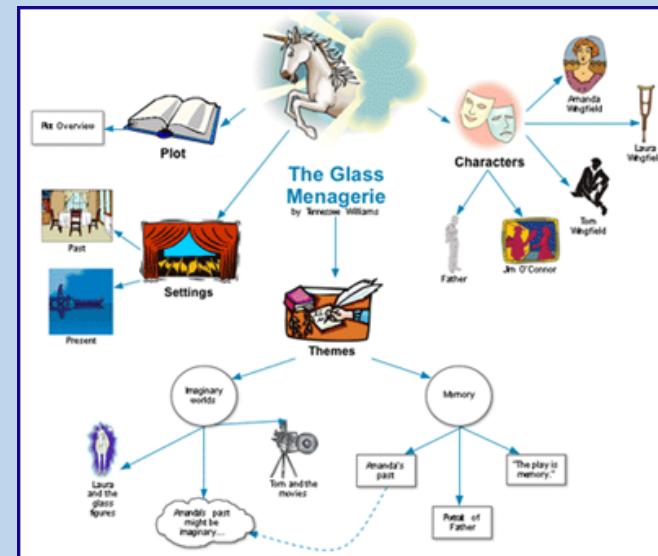
AT for Reading

- **Text to Speech**
- **Visual Adjustments**
- **Speed Reading Software**
- **Digital Format/Book Players**
- **Braille – paper or refreshable**
- **Magnifiers**
 - Hardware: video magnifiers (demo)
 - Software
- **Built-Ins**
 - Windows and Mac



AT for Writing

- Speech Recognition Software
- Mind Mapping
- Literacy Support Software
 - Spell and grammar check
 - Text to speech
 - Word prediction and completion



AT for Note-Taking and Classroom Participation

- Digital Recorders
- Livescribe Pen
- FM System
- Captioning
- Communication Access Realtime Translation (CART)
- Portable Video Magnifiers



AT for Accessing Computer

- ▶ Screen Readers
- ▶ Screen Magnification
- ▶ Alternative Pointing Devices
- ▶ Alternative Keyboard
- ▶ Switch Access
- ▶ Ergonomic Equipment
- ▶ Positioning



AT for Organizing Assignments

▶ Low Tech

- Checklists
- Day planners
- Task sequencing lists
- Alarms and timers on watches and cell phones



▶ High Tech

- Devices: Computers, tablets, smartphones, PDAs
- Software or Apps:
 - Calendars
 - Alarms, reminders
 - To do lists
 - Notes and voice memos



Mainstream Apps

- Apps to support students in school activities
 - Reading
 - Writing
 - Note taking
 - Studying
 - Organization



Questions?

Thank you!

- Feel free to explore the technology!