Assistive Technology and Cognitive Impairments

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Figure 1: Cognitive Disability in the United States

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Comparison of Annual Incidence

Journal of Special Education Technology 19(4) Fall 2004
Learning disabilities are the most common disabilities among children (6 to 21 years) served under IDEA.

Disabilities of children and youth served under IDEA

Autism or related disorders

- Approximately 1 in every 150 children in the United States has autism or a closely related disorder.
- Most rapidly increasing developmental disability

CDC, 2009

The most prevalent cognitive consequences: memory, organization, attention, concentration, initiation, and task completion and processing issues related to neurological disorders – (Gitlow 2010)
April 4, 2010

- Oodles and Oodles of Apps

Outcome Driven

- Reduce reminders that are given by family members or others
- Get to work, or appointments on time
- Increase accuracy in completing tasks through – task or cognitive demand reduction
- Increase independence in self care and work through prompts.
Executive Function Impairment

- Can’t remember what to do next
- Difficulty in initiating a task

Prospective Memory Aids

- Auditory Prompts – Beep Beep
- Auditory Prompts with Verbal Messages
- Auditory Prompts with push button messages
- Auditory Prompts with Visual Messages
- Auditory Prompts with push button text messages
- Reoccurring reminders

Voice Recognition Prompting

- ReQall
  - Push Notification to your Phone
  - Push Notification to your calendar and another person’s calendar through ReQall Sharing
Tactile Prompts
- Vibrating pager
- Vibrating watch reminder
- Vibrating Cellphone

Visual Prompts
- Color Prompts
- Text Prompts
- Icon Prompts
- Picture Prompts
- Video Prompts

Color Coding
Different Systems for Different Environments

- The Bathroom
- The Bedroom
- Downstairs
- Coming and Going
- The workplace

Bookshare; Talking Books; RFB&D

- Readtogo by Bookshare provides Accessible Books and Periodicals for Readers with Print Disabilities
- Talking Books NH
- RFB&D is a national nonprofit with the largest digital textbook library of accessible educational materials.
- RFB&D Audiobooks are Now Accessible on Apple iPhone, iPad, and iPod touch Devices

Assistive Technology for Prospective Memory Impairments

- Lists
- Memory Books
- Daytimer
- Smartphone
- Post it notes
- Color system
- Personal Assistant
- Auditory Prompts
- Visual Prompts
- Tactile Prompts
- Icons
- Associations
- Voice Mail
- MS outlook
- Combo Systems
- Apps
Online Reminder Systems

- www.iping.com
- http://www.rememberhemilk.com
- http://www.reqall.com/

Auto Shut offs

- Stove power controller: equipped to alarm and shut off a stove after 15, 30 or 60 minute intervals.
- Coffee Pots
- Irons
- Timers on Outlets
- Motion Sensors
- Power Link for appliances with a timer set

Locator Devices

- Electronic RF Locators
- StickNFind Bluetooth Tags