# ALS & Assistive Technology

# Voice Banking

- When a PAL still has the ability to be understood, it is important to create sound files of him or her saying the words and phrases they most commonly use. The recordings can then be used within an AAC device or other communication solution.
  - Voice banking can be done using a computer and a microphone.
  - http://dynavoxsys.custhelp.com/ci/fattach/get/663/1214413437
  - Training Module on www.StarTraining.org
- o Recorded Children's Books
  - Hallmark/Walmart
  - http://record-a-story.com
- Model Talker http://www.modeltalker.com/
  - Creates a "synthetic" voice in order to be able to communicate new messages.
  - Use voice with AAC device or computer.
  - Inflection is created and may not sound natural.
  - \*\*Requires good voice quality, 4-6 hours of recording\*\*

#### Communication

- Low Tech Solutions
  - Notepad—individual writes what they would like to say.
  - Communication Board/flip books—phrases, words, or alphabet are used to choose message to communicate.
    - \*\*Should always have one in case of emergency/hospitalization\*\* (Free one on www.StarTraining.org)
  - Eye Gaze Frame—individual looks at certain area to communicate yes/no, choice, or specific letters trying to spell.
  - MP 3 Player—Individual uses pre-recorded phrases and finds the phrase on MP 3 Player to play.
  - Static AAC Device- Limited amount of pre-recorded choices to communicate (number of messages) and may not be able to access with limited motor control
    - Lingo Communicator (http://www.ablenetinc.com/)(8)
    - Go Talk Pocket (<a href="http://www.attainmentcompany.com">http://www.attainmentcompany.com</a>) (30)
    - Chat Box, Hummingbird, Cardinal (http://www.saltillo.com/)



### Telephone Access

- Text Messaging
  - Easy to communicate with lots of people, but very few cities allow 9-1-1 text messaging.
  - Free Texting apps on iPad/Android
    - o textPlus
    - o textNow
    - o Viber
- 7-1-1 Relay / http://www.alabamarelay.com/
  - Hearing Carryover (HCO) allows speech-disabled users with hearing to listen to the person they are calling. The HCO user types his/her conversation for the CA to read to the standard telephone user.
  - Relay Speech-to-Speech (STS) operator training helps speechdisabled users to be heard and understood. There may be instances where an STS user will be asked to repeat his/her message to ensure that it is conveyed correctly.
- TTY (teletypewriters) Telephones
  - Using relay, a person types what they want to say and an operator reads it to the listener.
  - Alabama Telecommunication Access Program (ATAP) is available through AIDB, but there are income restrictions.
  - Weitbrecht is one vendor of TTY telephones. http://www.weitbrecht.com
- Computer Speech—Use a computer with a speaker phone and type on the computer the message wanting to be spoken and use a free text-to-speech program to speak the message.
  - Natural Reader http://www.naturalreaders.com/
  - Word Talk http://www.wordtalk.org.uk/Home/



- iPad & Android Apps (visit <u>www.StarTraining.org</u> for additional recommendations)
  - Speak It!
  - Verbally
  - Aphasia (Small Talk)
- High Tech/Dynamic AAC Devices Maybe available through ALS loan closet
  - Augmentative and Alternative Communication Devices (AAC) enable a person to communicate using pre-programmed messages as well as create new messages through typing.
  - AAC devices vary greatly and it is important to have the opportunity to try several devices prior to making a decision.
    - Dynavox-- http://www.dynavoxtech.com
    - Prentke Romich -- http://www.prentrom.com/
    - Words+ <a href="http://www.words-plus.com">http://www.words-plus.com</a>
    - Forbes Rehab Services- http://www.frs-solutions.com/
    - Tobii- http://www.tobii.com/
  - The High Tech/Dynamic AAC devices are basically computers and many have the ability to learn infrared in order to control the environment like the television or stereo.
  - Individuals can access or use the devices in different ways:
    - Typing
    - Mouse/Joystick
    - Direct Selecting on Touch Screen
    - Switches and Scanning
    - Eye Gaze (Move eyes, move cursor)
  - Funding an AAC device
    - Medicare and most private insurance will fund AAC devices but there are specific requirements that must be met:
      - AAC Evaluation by a Speech Therapist who has continuing education in AAC
      - Individual must not currently be served in a skill nursing care facility or hospice
      - Insurance will only fund a device every 5-7 years, so it important to chose a device that will work for many years.
      - Insurance will fund the purchase of switches, head mouse, eye gaze, or mounting devices if there is a change in medical condition making it impossible to continue to use an AAC device.
      - Federal Blue Cross/Blue Shield only provides minimal funding for AAC devices (July 2011).



#### Computer Access

- Microsoft Accessibility Wizard
  - On all Windows computers there is an easy Accessibility Wizard to help identify tools within the operating system to make it easier to use.
  - Start>All Programs>Accessories>Accessibility>Accessibility Wizard
- Alternative Mouse
  - Point-n-click—if you can move mouse but clicking is difficult. http://www.polital.com/pnc/
  - Trackball/Marble mouse—mouse stays stationary, move ball around. Can be used with other body parts like the foot, elbow, chin, etc.
  - Touch Pad—Standard with most laptops, can be purchased as USB for computer. Less movement required to move mouse.
  - Foot Mouse-Mouse operated by pushing pedals with the foot.
  - Camera Mouse (free: http://cameramouse.org/)
  - Joystick Mouse/Tetra Mouse
  - Head Mouse—Infrared dot used on head, nose, chin, etc. and camera on computer tracks the movement of the dot.
  - Switch Access Mouse Utility—Software program that provides menu for person to use switch to select which way mouse moves.
    - Cross Scanner-- <a href="http://www.imgpresents.com">http://www.rjcooper.com</a>
    - Scan Buddy- http://www.ahf-net.com
  - Eye Gaze—Mouse controlled by eye movement.
- Alternative Keyboards
  - One handed typing-http://www.aboutonehandtyping.com/
  - On-screen keyboard-provides a way to type using an application that runs within most Windows' program.
    - Windows free version in Accessories Folder
    - Click-N-Type http://www.lakefolks.org/cnt/
- E-Books- access to books in electronic format
  - Bookshare.org; Kindle; Ebooks.com
  - I-Pad/I-Phone Applications
  - Calibre (convert text into E-book)



#### Environmental Control

- o Infrared Controlled light switches (X-10)
- Simple Solutions
  - As Seen On TV
    - Light with String
    - Light Switch Anywhere
  - Oversized TV Remote
  - Wireless Doorbell (call button)
- o iPad App with Infrared Sender (ex: Unity Remote)
- Vendors of Home Adaptation
  - http://www.broadenedhorizons.com/
  - http://www.saje-tech.com/
  - http://www.breakboundaries.com/
  - http://www.smarthomesolutions.com

## Where to find AT support:

- o Employer
  - Provide Accommodations in Workplace
  - Federal Employees have access to CAP (Computer/Electronics Accommodations Program). http://www.tricare.mil/CAP/index.cfm
  - Job Accommodation Network (http://www.jan.wvu.edu/)
- Local ALS chapters
  - Offer lending library
  - Grants available to fund Assistive Technology
- o Technology Assistance for Special Consumers (T.A.S.C.)
  - Assistive Technology Evaluations
  - AAC Evaluations
  - Lending library
  - www.ucptasc.org
  - **(256)** 859-8300
- o STAR centers (Alabama's Assistive Technology Resource)
  - Centers throughout the state
  - Provide reutilization of durable medical equipment at no cost (walkers, lifts, shower chairs)
  - Alternative Finance Program (loan program for helping finance AT)
  - http://www.rehab.state.al.us
- Alabama Institute for Deaf and Blind (AIDB)
  - ATAP program to receive TTY telephone in home (income requirements)
  - Kathi Arnould (256) 539-7881
- Assistive Technology Websites
  - http://www.ataccess.org/
  - http://www.microsoft.com/enable/
  - http://www.abledata.com/

