

Using Digital Technology to Create Meaningful Instructional Materials and Supports

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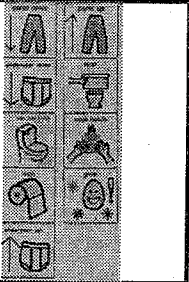
Why use technology?

Years ago, I had a graduate student who was a teacher at the Iowa Braille & Sight Saving School. She used a Braille 'n Speak to create an audio task analysis to assist 2 students to make a simple meal. The students were not Braille users; however, they easily learned to push the button at the end of each step in the task analysis. The device would then read/voice the next step. This simple, yet effective, "misuse" of available technology peaked my interest in continuing to explore alternative means to create instructional materials and support utilizing software and hardware "differently."

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Technology concepts

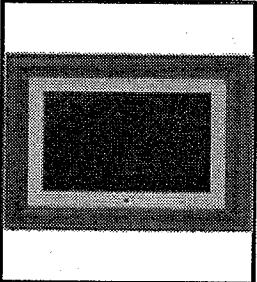
- Picture task analysis
- Visual schedules
- Digital storytelling
- Video modeling
- Video self-modeling



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Available hardware

- Computer
- iPod
- mp3 player
- Smart phone or PDA (Personal Data Assistant)
- Digital Photo Frames
- Digital Key Chains
- DVD players
- Video game systems



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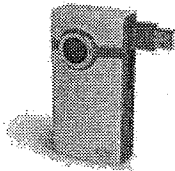
Available Software

- Word processing programs
 - Automator (for advanced users)
- Presentation programs
- Movie making programs
- Audio recording programs
- iTunes
- PDF readers
- Graphics programs
- Online resource sites with pictures/symbols

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Key tools

- Camera
- PDF capability
- Camcorder



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Making PDFs

	<p>My name is Chris Macfarlane.</p>
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PowerPoint ...

<ul style="list-style-type: none"> • Save as Pictures <ul style="list-style-type: none"> - Each slide becomes a picture • Save as Movie <ul style="list-style-type: none"> - Can include sound - Transitions are okay - Animations do not play • Movies can be uploaded to iPod • Movies can be burned to CD/DVD 	<p>It's time to take the dry clothes out of the dryer.</p>
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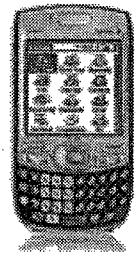
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Using an iPod or mp3 player

<ul style="list-style-type: none"> • Can play audio and picture file as a movie • Can play an audio file • User can start/stop with each step in the task analysis • No one else will hear/see the cues unless you use external speaker

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Using your PDA

<ul style="list-style-type: none"> • Documents to go <ul style="list-style-type: none"> - Slide show to go - Create on/off PDA • Picture slide show <ul style="list-style-type: none"> - Can add audio caption • Adobe Reader • eReader <ul style="list-style-type: none"> - Can create a book using eStudio 	
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Sequence for Toileting Picture Task Analysis

1. Transfer picture files to handheld (Palm PDA)
2. Create Album (select pictures from file)
3. Show as "slideshow"
4. Can add audio caption to each picture.

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Using a digital frame

<ul style="list-style-type: none"> • Transfer pictures from computer or camera • Create slideshow • Adjust timing • Does need electricity • Not portable • Make sure pictures are "framed" • Experiment with background & text

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Photo key chains

- Inexpensive (as compared to PDA or iPod)
- Only works with Windows... so, I couldn't use it on my Mac
 - Would need to create dual platform or virtual PC
 - Would need Windows
- Use for frequent, simple reminders or communication device
- Window is small

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Using a computer

- Many options available
- Large screen
- Is bigger
- If a desktop, can't be moved
- Easiest to update

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Video Games

- Use system with hook up to TV to screen/project movies
 - Can do large group lesson
- Identify appropriate, available learning tools available to teach
 - Cooking

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Video Modeling

- Commercially available
- Create own specific to situation

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Video self-modeling

- Must create your own
- Can do it in segments
- Probably would need some editing capabilities if you needed to provide prompts to get the person to do the skills necessary for the video

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Why use technology?

The use of readily available technology provides users with options for audio & visual, audio only, and/or visual only cues or prompts to increase their independence. The adoption of technology readily available to the general population facilitates quick and easy access and the ability to blend with typical peers.

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