Visual Supports: From Theory to Technology

Karen M. Waddill, M.A. CCC-SLP ATP

Director of Cotting Consulting

Cotting School

What are Visual Supports?

- Visual supports are a way to take what a student hears and put it into picture/word form.

- Key features
    - Target a specific concern, behavior or skills
    - Offer more information about positive/desired behaviors than negative
    - Include a plan for reinforcement
    - Be portable and durable
    - Fit the environment
    - Be customized for each learner

Visual Supports are an effective instructional tool…

- *"Visual supports organize a sequence of events, enhancing the student's ability to understand, anticipate and participate in those events.*

- *Visual supports supplement verbal instruction, clarifying the information for the student and increasing comprehension.*

- *Visual supports can be used to cue communication, providing reminders of what to do and say in a situation."*

  Quill, 1995

Overlap Between Evidence-Based Practices Identified by the National Professional Development Center (NPDC) on ASD and the National Standards Project (NSP)

Evidence-Based Practices Identified by the National Professional Development Center (NPDC) on ASD	Established Treatments Identified by the National Standards Project (NSP)									Comprehensive Behavioral Treatment for Young Children	Joint Attention Intervention
	Antecedent Package	Behavioral Package	Story-based Intervention Package	Modeling	Naturalistic Teaching Strategies	Peer Training Package	Pivotal Response Treatment	Schedules	Self-Management		
Prompting	X			X						The NPDC on ASD did not review comprehensive treatment models. Components of The Comprehensive Behavioral Treatment of Young Children overlap with many NPDC-identified practices.	The NPDC on ASD considers joint attention to be an outcome rather than an intervention. Components of joint attention interventions overlap with many NPDC-identified practices.
Antecedent-Based Intervention	X										
Time delay	X										
Reinforcement		X									
Task analysis		X									
Discrete Trial Training		X									
Functional Behavior Analysis		X									
Functional Communication Training		X									
Response Interruption/Redirection		X									
Differential Reinforcement		X									
Social Narratives			X								
Video Modeling				X							
Naturalistic Interventions					X						
Peer Mediated Intervention						X					
Pivotal Response Training							X				
Visual Supports								X			
Structured Work Systems								X			
Self-Management									X		
Parent Implemented Intervention	The NSP did not consider parent-implemented intervention as a category of evidence-based practice. However, 24 of the studies reviewed by the NSP under other intervention categories involve parents implementing the intervention.										
Social Skills Training Groups	Social Skills Training Groups (Social Skills Package) was identified as an emerging practice by the NSP.										
Speech Generating Devices	Speech Generating Devices (Augmentative and Alternative Communication Device) was identified as an emerging practice by the NSP.										
Computer Aided Instruction	Computer Aided Instruction (Technology-based Treatment) was identified as an emerging practice by the NSP.										
Picture Exchange Communication	Picture Exchange Communication System was identified as an emerging practice by the NSP.										
Extinction	Extinction (Reductive Package) was identified as an emerging practice by the NSP.										

National Standards Project & National Professional Development Center, Odum 2014

Technology and Visual Supports

Odom, et.al. , Dec 2014

- Literature Review of Technology and ASD- What met EBP?

  - Some Computer Aided Instruction

  - Video prompting offered better outcomes than video modeling for step by step task completion

  - Recognition of facial expressions & complex emotions

  - Virtual reality instruction/practice of job interviewing skill

Shane, et.al. , June 2011

- Visual Immersion Program

  - Promotes a highly visual symbol rich environment

- Visual Scenes

  - Dynamic and static visual scenes allow the representation of complex situations visually

- Wide range of graphic symbols (static and animated) available

- Personalization does not require knowledge of complex systems

Selecting and Designing Visual Supports

Before you begin with trial and error...

- Identify the settings, problem behaviors and functional motivations
  - Functional Behavior Assessments
- Create a hierarchy of reinforcement by comparing a students reaction to each reinforcement
  - Interest Inventories for Older Students
  - Preference Assessments for Younger Students
- Consider vision and visual skills when selecting icons

Visual Representations (Symbols)

		Photograph (isolated items/controlled background)
		Photograph within a context/background
		Simple Line Drawings (e.g., Picture Communication Symbols, SymbolStix, ClipArt)
		Complex Line Drawings (e.g., Minspeak icons, Bliss Symbols)
	house	Written Text

Transparency

Bribery versus Reinforcement

| Bribery	Reinforcement
• Offered after problem behavior emerges • Reward provided prior to the completion of the task	• Planned before the problem behavior emerges • Provided to encourage future positive behavior

Types of Visual Supports

Common Types

- Visual Schedules
- Mini Schedules
- First Then Displays
- Choice Boards
- Rule Reminder Cards
- Visual Task Analysis
- Social Stories

Less Common Types

- Contingency Plans
- Contracts
- Visual Scenes
- Countdown Displays
- Calendars
- Video Modeling

iPads as Visual Support Tool
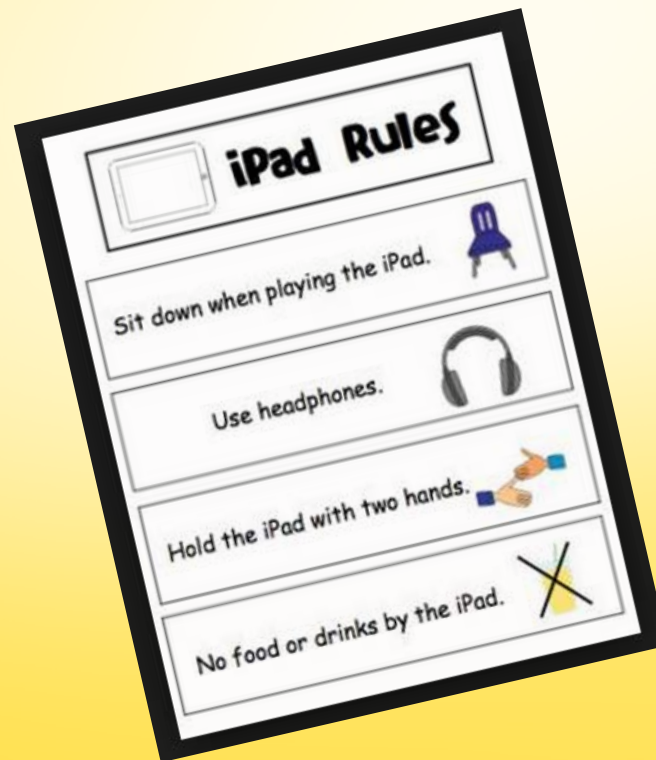
CanPlan

Create step by steps with pictures, text and audio. Schedule and reminder features allow students to see upcoming tasks and get audio reminders of when to start a task. Limited number of tasks can be stored. Supported by a non-profit.

Sounding Board

Use provided symbols or your own photographs to create simple interactive boards. Digitized (recorded) speech for messages. Can link pages for more options and choices. In app purchases of additional pre-made boards.

** As of July 2015, in app purchases are causing the app to crash. Confirm with AbleNet before downloading to ensure the bug has been fixed

Bitsboard

There are multiple versions of this app (Pro, Preschool & Spelling). Allows for the creation of sets and offers a variety of game-like interfaces for learning and practicing sets. In app purchases add games and collections.

The Pro versions adds—

- Multiple users and create classes
- Use of web image search and YouTube videos
- Tracking progress over time
- Backup with Dropbox

Easily Create Your Own Study Sets
Or download sets from other users

Collections

Animal Planet   English Vocab...

can   new

fly   buy

Sight Words   Word Families

Easily Track and Share Progress
Share test results with teachers

<Back   **Scorecard**

Breakfast   Score: **90%**

All time: 10

Bits Studied   All Time   Now

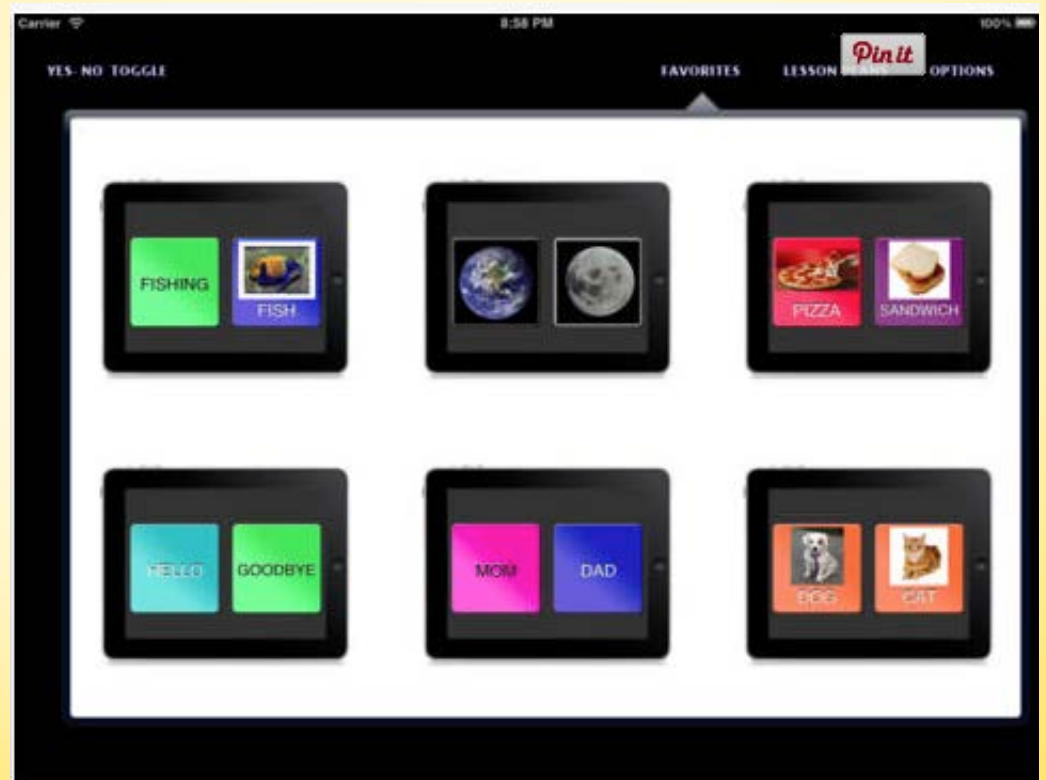butter
muffin
jam
croissant
donut
bread

YesNo Free and HD

Create simple 2 option choice and communication boards. Use text or photos from your library. Recorded speech output. Toggle to YES/NO choice board.
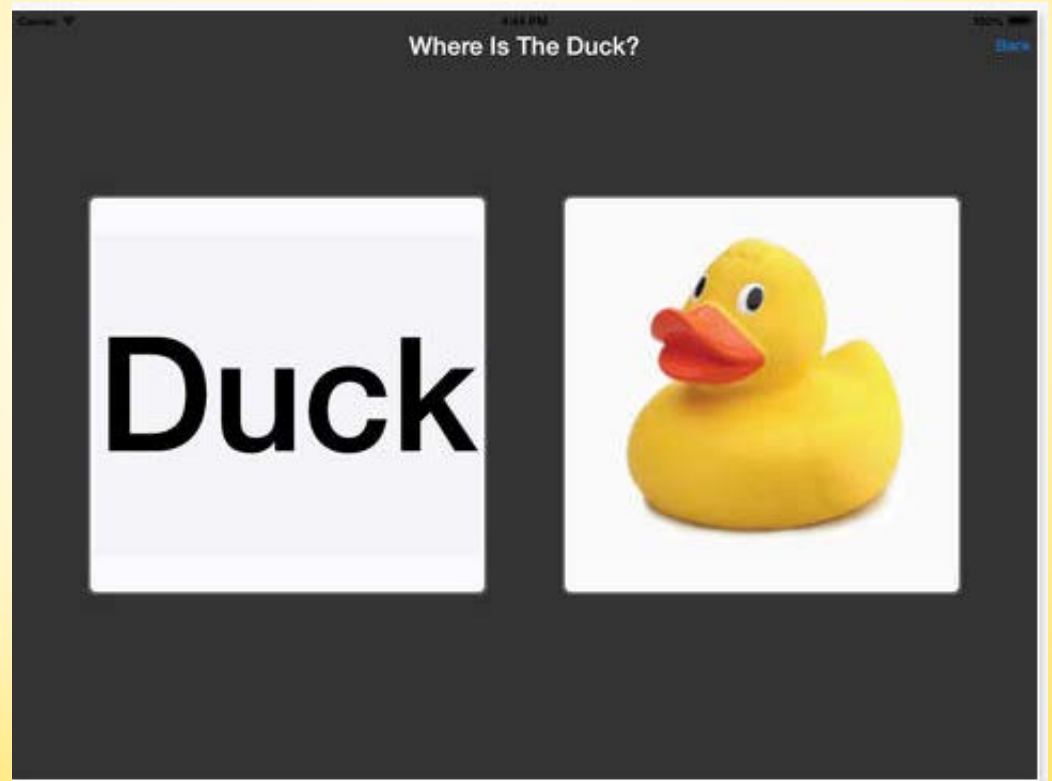
** Developed by a father for his son, support and updates can be inconsistent.
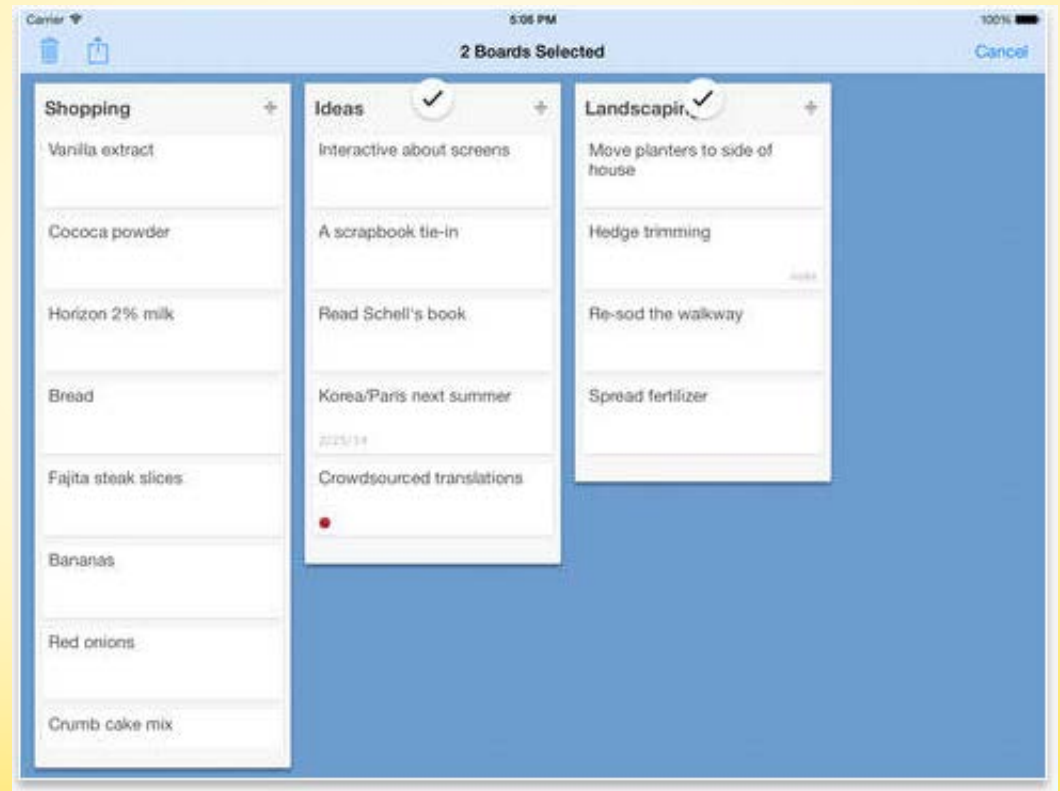
Choice Board Creator

Allows for the creation of boards with 1 to 6 choices. Media options include photo library, camera, music library, record and text.

TaskBoard

Text based list and task manager
with drag and drop organization.

Visual Timers

Run multiple visual timers at one time. Customized the timer names and duration. Each can be started, pauses, stopped and reset individually.

There a **Pin it** 6 timers you can customize. Just tap and hold.

Steak 00:07:00	Rice 00:33:16
Turkey 03:01:17	Vegetables 00:06:30
Pie 00:36:20	Stuffing 00:06:19

FTVS HD- First Then Visual Schedule HD

One of the fullest features and most flexible visual support apps currently available and supported.

Media options: library, camera, internet, stock images or Smarty Ear symbols

Timer for tasks or steps within a task

Add choice boards or videos to any step.

Viewing options: single presentation; two items, checklist, drag and drop column and drag and drop envelope.

Resources for More Ideas and Printables

- Jada94
  - https://www.pinterest.com/jada94/autismvisual-cues/

- The Autism Helper
  - http://theautismhelper.com/explain-intervention-behavior-contingency-maps/

- DoToLearn
  - http://do2learn.com/picturecards/overview.htm

- Boardmaker Share

- SETT BC

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