<u>More than Cues</u>: Using Visual Supports to Facilitate Engagement & Self-Regulation





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## Session Objectives

- Participants will contrast "between activity" and "within activity" visual schedules, as well as describe how they work together to support engagement. (4.2)
- Participants will identify the purpose and describe the process for implementing a token economy tool with fidelity. (4.3)
- Participants will identify the components of a framework described in the research for supporting emotional competence, and describe how the components can be supported with visual supports (4.3)



## Building Autonomy

<u>Self-Determination</u>: the process by which a person controls their own life.



<u>Self- Actualization</u>: the realization or fulfillment of one's talents and potentialities, especially considered as a drive or need present in everyone.





## Why Do We Use Visual Tools

It is well documented that students with autism process visual information better than auditory information (Quill, 1995, 2000)

Duh, right!







## What visual & organization tools do you use?

- Planner
- Calendar
- Reminders / Alerts
- Post-It Notes
- To-Do List
- Grocery List
- can find them.Files & Folders

Routines with Objects (putting keys,

wallet, phone) in the same place so you

- Color-Coding
- Mail Sorting System

# Purposes of Visual Supports:

### Visual Supports provide NECESSARY:

cues,

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•

- ...to allow individuals to: • manage time,
- structure, permanence, and predictability of process ....
- navigate tasks and environments,
  - demonstrate increased engagement,
  - improve self-awareness and self-regulation,
  - initiate and sustain tasks,
  - gain information receptively, and
  - communicate expressively.

## Visual and Environmental Supports Defined!

Effective visual and environmental supports...

highlight salient information related to the purpose and process of the activity/expectation,

(to foster attention, engagement, independence, task-initiation/completion, participation & learning,)

AND minimize distractions related to the use of the tool(s).

## Environmental Supports

Physical structures, equipment, and spatial arrangements that enhance the ability of an individual to function and participate effectively and independently within particular environments.

- Organization of space
- Movement of people and materials within an environment
- Routines
- Proximity, Orientation & Positioning
- Lighting and Sound
- High-contrast background

## Environmental Supports

Physical structures, equipment, and spatial arrangements that enhance the ability of an individual to function and participate effectively and independently within particular environments.

- Upright / angle presentation
- Noise-cancelling headphones
- Quiet spaces
- Access to fidgets
- Timers
- Alternative seating or supportive seating
- Alternative activities (compatible in purpose)

## What the research says:

Researchers have determined that visual supports help create independence and are beneficial when mainstreaming a child with special needs, specifically autism (Rao and Gagie, 2006).

These authors indicated that visual supports help by:

- Allowing students to focus •
- Making abstract concepts more visually concrete • Allowing students to express their thoughts
- Bringing routine, structure, and sequence
- Reducing anxiety ٠
- Serving as a tool to assist with transitions.

http://www.friendshipcircle.org/blog/2012/01/12/5-visual-support-tools-for-the-special-education-classroom/







Implementing Visual Supports with Fidelity:

- Clear purpose
- Provide labels
- Keep it simple
- Provide a clear and accessible path for manipulating tool
- Provide time / pause and cue to reference visual schedules
- Tool should be responsive to child's need and learning characteristics
- Teach child to manage tool "in real time"
- Visual schedules and other "real life tools"...fade the support, not the tool.

# Barriers to Implementing Visual Supports (with fidelity):

Personnel:

- Staff Turnover
- Lack of effective training on the purpose and process of implementing visuals
- supports Belief Systems:
- Perception that an individual "doesn't need it...he just needs to (listen to me, pay attention, stay
- awake, stop being lazy, etc)"
   Assuming it won't work, because it didn't the first time.

## Barriers to Implementing Visual Supports (with fidelity):

Structure of Environment:

- Lack of structure or routines
- Routines and transitions that inhibit use
- Insufficient flexibility to reflect change or unpredictable factors
- Balancing activities AND materials AND visual supports within and across tasks.

## Barriers to Implementing Visual Supports (with fidelity):

Resources:

- Time
- Materials (color printing, Velcro \*, laminate, binding)
- Funds (for time and materials)
- Access to and training on use of symbol libraries

## Visual & Environmental Tools as Learning Supports:

Executive Functioning:

Foster development of executive functioning skills...even in young children.

#### Sensory Considerations:

Customize tools to support a child's sensory and learning needs. Customization may include use of materials (strong velcro<sup>6</sup> s. wipe off), organization of time (embedded breaks), or other tools and strategies to meet a child's physiological readiness for learning, and behavior regulation.

#### Motivation:

Structure and predictability can lay the foundation for eliciting engagement and attending to individual learning needs..

# Executive Function Defined! ...The executive functions are a set of processes that all have to do with managing oneself and one's resources in order to achieve a goal. It is an umbrella term for the <u>neurologically-based skills involving mental control and</u> <u>self-regulation</u>.

www.ldonline.org







## Sensory Considerations: What the Research Says

Jane Ayres (OT) seminal work (1979) with sensory integration theory emphasizes the impact of sensory experiences and environmental inputs on the ability of one's body to function effectively within the environment to demonstrate learning as well as regulate emotions and behavior.

In a systematic review of the literature reviewing the effectiveness of sensory integration approach May-Benson & Koomar (2010) noted positive outcomes for short to moderate durations when compared to no-treatment, in areas such as motor planning; socialization, attention, and behavioral regulation; reading-related skills; participation in active play; and achievement of individualized goals.

## Sensory Considerations

Sensory input can:

- · Enliven, or
- Calm

By...engaging a person's nervous system with input that allows the individual to stay focused and organized.

\*\*Sensory needs are driven by physiology, NOT behavioral compliance

## Motivation

Motivation is the KEY to engagement across life's activities:

- Communication
- Learning .
- Motor Access ٠
- Attention
- Organization of time, space, tasks and responsibilities
- Seeking of opportunities and experiences

## Motivation

Motivation may be:



- Extrinsic: praise, reward, money, fame
- Inherent in readiness: comfort with routines or predictable structure that provides understanding of expectations, and the ability to anticipate "what's next"

### Motivation

Lack of motivation results in reduced quality experiences:

- Less learning
- Dis-interest in participating (communicating)... participation / use of communication tools becomes a compliance task
- Increased negative behaviors
- Learned helplessness...dependent upon others to do for him.



**Otiv**ation

## Motivation

Routines

Different kids need different things:

- Affirmation
- Purpose (classroom jobs/chores)
- Social Reinforcement • Structure / Routine
- To feel safe and protected

Control

• Freedom to explore/try

• Choices (for control or for focus)

**Notiv**ation

Understanding what makes a student tick is fundamental to respecting their learning style and meeting their learning needs.

Creates a foundation for participating or

interacting with automaticity based on expectation.

This creates an organized and predictable experience. An experience which is conducive to learning and understanding.

available for learning.



## Benefits of Routines

- Establish how time will be used
- Identify how people and items with move within and across spaces
- Cues (Verbal, Visual) are embedded (Time for dinner)
- Expectations are clear and predictable
- Develop Automaticity
- Grow Independence. Tasks become easier when part of a routine because many opportunities for practice are provided.

## Routines happen when...

- Natural Cues are in place.
  - Hand towel next to sink to dry hands.
  - · Coat hooks and cubbies outside classroom. Teacher pauses in front of door to give students time to unpack before entering the classroom.
- Consistent; repeated practice is offered
- Predictable
- Anticipated

# Routines

## Routines are most effective when...

...when they offer consistency with variety!!!

## Routines provide the structure Content provides the variety

Variety is necessary to maintain interest, motivation and engagement for learning and participating!

## From Routines to Visuals

A visual support system embedded in an environment functions as a second language...

... as such, it must also be a common language among all communicators in that setting.

Think of the tools as a metaphor for the process!

## What we know:

Humans are visual creatures and children with disabilities often rely primarily on visual cues to gather information. A major function of communication is to give information. In the typical school or home environment:

- a majority of the information is given verbally.
- it is frequently assumed that the student already knows or remembers specific information.

Linda Hodgen (1995)

# Visual Schedules

## What the Research Says:

Individuals with ASD have greater difficulties coping with unstructured time than neurotypical people and benefit from increased structure in their lives

--Van Bourgondien et al., 2003

## Goal of this Tool:

- Create independence
- Teach time management
- Facilitate flexibility
- Provide structure
- Establish expectations
- Inform the student of the activities of the day
- Decrease downtime
- Permanence of process

# How to do it! What to Consider.

- Consider vertical or horizontal presentation.
- Left to right and top to bottom teaches emergent literacy skills.
- Make it interactive to develop student ownership.
- Consider symbol representation (photos, PCS, words)
- Make it portable
- Keep it simple
- Fade support...promote independence (but don't fade the tool...that's what creates the independence)







# <image>



# Facilitate Ownership: It is a dynamic process

- Introduce
- Model
- Adjust and tweak, as needed, to make the schedule work better
- Model
- Provide MAINTENANCE supports and strategies...your student will need them!
- And Finally....Fade Support as appropriate
   (but don't fade the tool...that's what creates the independence)

## Facilitate Ownership

### Personalize

- Make sure it fits the student's needs
- Personalize with stickers or other items of interest
- Why is personalization necessary:
  - Access
  - Motivation
  - RelevanceOwnership
  - Level of Functioning

## Facilitate Ownership

- Meet them where they are with regard to
  - How many symbols are provided
  - Symbol representation
  - Sensory needs
- Use Key Phrases to cue students to their schedules:
  - "Check your schedule"
  - "What's next"
  - Use a bell



## FINISHED Position

- Expressing "finished" is an important concept for:
  - Facilitating motivation
     Maintaining attention to task
  - Teaching independence
  - Shaping Time Management skills
- A "finished" position can be:
  - Envelope, pouch or pocket
     Basket, bucket or tub
  - Storage location
  - Gum or mint container
  - Moving an item such as a bead or block from a left position/container to a right position/container



# Task Analysis "mini schedules"

## What the Research Says:

Child(ren) with autism can successfully acquire the skills necessary to independently follow activity schedules and generalize these skills to other settings with minimal training. --Massey & Wheeler, 2000

Use of activity schedules facilitated independence and self-management that has generalized across activities, people and environments --McClannahan & Krantz, 2010

## What the Research Says:

Activity schedules enabled individuals with ASD and CCN to demonstrate long response chains, independently transition to other activities and generalize those skills across environments without prompts or supports --MacOuff, Krant & McClannahan, 1993

Activity schedules can be a useful tool in promoting independence and, possibly, self-determination of individuals with significant cognitive challenges. Activity schedule does not limit its use to a specific age range, diagnosis, or intellectual functioning, but can be adapted to accommodate a variety of types of individuals. --Kovama & Wane. 2011

http://www.northwestaba.com/uploads/7/5/5/1/7551608/kovama11\_a\_review\_of\_activity\_schedule.pdf

## What the Research Says:

Activity schedules have helped with:

- transitions (Dooley, Wilczenski & Torem, 2001)
- play skills (Hampshire, Butera & Bellini 2016)
- self-monitoring (Dunlap, Dunlap, Koegel, & Koegel, 1991)
- Challenging behaviors (Krantz, MacDuff & McClannahan, 1993; Lequia, Machalicek, & Rispoli, 2012)
- social skills (Parker & Kamps, 2011; Betz, Higbee & Reagon, 2008)
- independence (Duttlinger, Ayres, Bevill-Davis & Douglas, 2013)

## Who Benefits:

## You Benefit!

If you've repeated yourself so many times it feels like it's Groundhog Day...your child may need a visual schedule or a task analysis checklist.



## Goal of this Tool:

- Facilitate independence with work / task completion
- Teach students how to break tasks into manageable chunks
- Help students maintain attention to task
- Establish reasonable expectations for what can be accomplished in a given period of time
- Concretely represent changes to a process
- Teach the beginning, middle and end of tasks.

## How to do it! What to Consider.

- Break tasks into manageable chunks
- Assemble in order
- Establish method for indicating when a task is completed.
- Determine cue for what happens when the sequence is completed: next activity, finished, break, reward, back to class, etc.
- Implement monitoring strategies as needed: move clip, use timer

## Task Analysis in Action: Write and Erase















Make and Take

"On the Fly" Visuals







LATER	Utraning	Tanosan	TODAY	DONE
And State		And States	Carl Part Regional Carl Carl Carl Carl Carl Regional Carl	

Creating Flexibility

## Who Benefits:

Students with...

- Rigid behavior
  Students who struggle with transitions
- Students who have a NEED to finish what they have started
   Students who require cues for self-monitoring and maintaining attention to task

Teachers with...

• Limited time and resources!

## Goal of this Tool:

- To create a clear and predictable "plan" for addressing exceptions to the routine
- Tangible means to explain non-routine changes in activities
- To decrease transition time and increase positive behavior during unpredictable events

## How to do it! What to Consider.

- Be prepared! Have your on the fly tools handy such as mini white-boards and post-its.
- For students using picture schedules, have generic picture symbols of "special activity" ready to insert.
- Consider having corresponding Social Stories that relate to exceptions in the schedule. These are teaching tools that would need to be reviewed ahead of time. For example, a fire drill, assembly, or substitute teacher.















## Communication is Power!

Visual Tools provide a common language for communicating about intangible events, activities, expectations, and changes in routines. This can shift the communicative paradigm away from the relationship, and onto the cue.

The flip side of being emPOWERed with communication...



...learned helplessness, acting out behaviors, and prompt dependence.

## All Behavior is Communication

Reaching = I want / I'm curious about that

Moving away / Throwing = I don't want / I'm finished

Leaning in = Tell me more / I like this

Looking away= I'm not interested / I don't care

Sharing a favored item = I like you / I want to be friends / I care about you

Vocalizing loudly / Pushing over furniture = I need your attention / I'm not coping well

Leaving environment / Covering heard = Too much (noise, people, activity)



## All Behavior is Communication

Compliance is NOT the same thing as communication OR participation.

- Non-compliance may be a way to control an interaction.
- Statements such as "He's lazy", "She doesn't know", or "He is ignoring you" does not recognize the purpose of the behavior and does not provide the necessary support to shape an alternative behavior.

## Give Language: to students and adults

What happens to our brain chemistry when dealing with negative behavior

Our physical reactions ...

The language we use...

Visual tools provide a model for effectively using language when supporting children who demonstrate acting-out behaviors by shifting the "it's personal" reaction (for both students and communication partners) away for the person and onto the (neutral) cue, and ...

- teaches the student an alternative / better response
- shapes our own reactions to the student
- provides consistent feedback from all staff working with a student
- shows student how behavior can be within his/her control

## Emotional Competence

Def.: the emotion-related abilities an individual needs to cope with a changing (real or perceived) environment.

A review of the research looked at how Language Skills impact Emotional Competence and Implications for use with AAC (including Visual Tools)

- Developing emotional competence is key for promoting readiness for learning.
  Expressive vocabulary skills in young children can be predictive of
- self-regulation skills.
  In a study of children 7-9 y.o. a close relationship emerged between language
- In a study of children 7-9 y.o. a close relationship emerged between language competence and emotional competence.

Na, J.Y., Wilkinson, K., Karny, M., Blackstone, S., & Stifler, C. (2016). A Synthesis of Relevant Literature on the Development of Emotional Competence: Implications for Design of Augmentative and Alternative Communication Systems. American Journal of Speech Language Pathology, 25 (1):442-452



# Shaping Emotional Competence

### Shaping emotional competence:

When communication is difficult (developmentally or due to delay or disability) understanding, expressing and processing emotive events is challenging!



# Shaping Emotional Competence



As with all aspects of language development, kids need modeling to learn how to use language to work through difficult emotions:

- 1. Identify the emotion (not a question): "You look (sad, mad, frustrated)."
- 2. Determine why. "Tell me about it." (child may or may not respond).
  - a. Reflect on what you saw or know about the situation.b. Ask specific questions: who, what, where?
    - c. Make a best guest. It is important to validate the child's
    - experience, even if we don't understand it.

3. Process the situation. Talk about what can make it better.

## Shaping Emotional Competence

It can be difficult to process emotional events "in the moment":

- Learning to process and cope with difficult moments is its own process. Difficult situations WILL recur.
- Non-compliance often requires compassion, not discipline.



## Supporting Behavior with Visual Tools A Continuum of Supports: 1. Cue Desired Behaviors a. Review and Post Rules / Expectations b. Provide Timely Feedback c. Super Symbols d. Power Cards e. Environment or Context specific cues f. Social Stories g. Video Modeling



# Define Expectations





## Video Modeling



Video Modeling is a visual teaching method that occurs by watching a video of someone modeling a targeted behavior or skill and then imitating the behavior/skill watched.

Video Models may be from 3 different perspectives:

- Video of Others
- Video of Self
- Video from the perspective of the task being performed by self

http://www.watchmelearn.com/video-modeling/what-is-video-modeling

## Video Modeling



FREE Training Webinar presented by edWeb.net: <u>Practical Application for Using Video Models with Students</u>

Examples from YouTube:

- Brush Teeth: <u>https://www.youtube.com/watch?v=maklgB4X3q8</u>
- Introductions & Greetings: <u>https://www.youtube.com/watch?v=RBDWrQs6Ou8</u>
- Montage: <a href="https://www.youtube.com/playlist?list=PLDCAACE2C2BF5733F">https://www.youtube.com/playlist?list=PLDCAACE2C2BF5733F</a>





nsure motivators are meani	ngful <u>in that m</u>	oment!		
		Reward Menu		
	5 Minute Choice Break	Prize Box	5 Minute Reading Break	
	Woo Hoo Note to Parents	5 Minute Computer Break	Candy Box	

Toke	n / Reward System in Ac-	tion
ſ	I am working for	0 .













# Supporting Behavior with Visual Tools

A Continuum of Supports:

- 1. Cue Desired Behaviors
- 2. Reinforce Desired Behaviors
- 3. Self-Monitor Emotional States (with support, as needed)
  - a. Zones of Regulation (emotional state)
  - Incredible 5-point scale (assign progressive value and definition to a variety of challenging or misunderstood behaviors)



#### Incredible 5-point scale cands for 5 A numerical, graduated, 1-5 tool, that assigns a number to a variety of social-emotional situations, A "5" 4 Could Make Me making the abstract quality of social-emotional Lose 3 situations more concrete Control! (Dunn Buron & Curtis, 2012) 2 d for evaluating porting highly 1









# Identify Emotions













# Make and Take

# Technology Options

## Technology Options

First Then Visual Schedule HD

FTVS HD lets you easily and quickly create and use ALL these visual supports in just one app: First Then boards, Visual schedules, Task analyses, Social stories, Choice boards and Video models. www.goodkarmaapplications.com



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## Technology Options

Our Story App / Book Creator

- Digital story telling apps that are very easy to use.
- Utilize photos, screenshots, images, and videos.
   Consider for task analysis, social stories, sequencing, first/then, and more.



## Technology Options

Tiny Tap App

- Create interactive lessons ranging using visual scenes
  Offers an alternative presentation to a typical schedule
- Use of recorded speech to pair auditory information
   With visual information

Album in photo library

Organize photos into albums to create a sequence





# RESOURCES

http://www.visualaidsforlearning.com/

http://lessonpix.com/

https://www.sensorysmarts.com/sensory\_diet\_activities.html

http://www.oneplaceforspecialneeds.com/main/library\_social\_stories.html

https://www.autismspeaks.org/family-services/personalized-stories

http://www.autismadventures.com/2015/04/calm-down-kit-2nd-edition.html





