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# Tools & Apps to Implement a Visual Language Teaching Model

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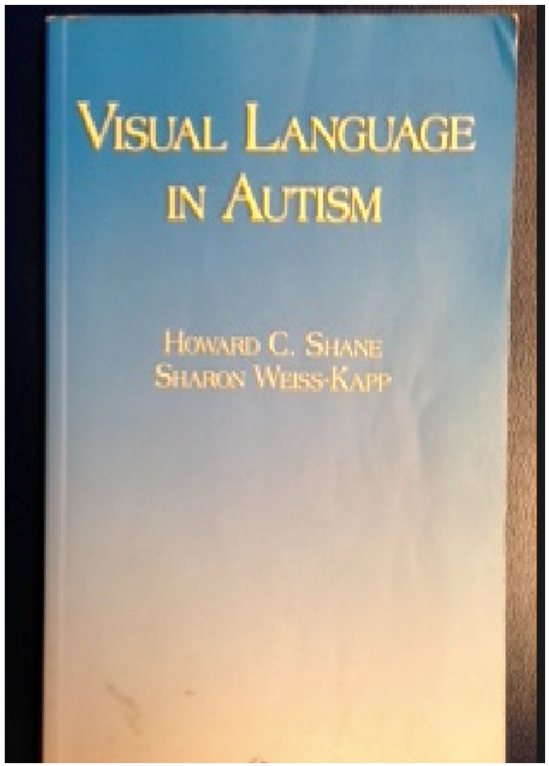
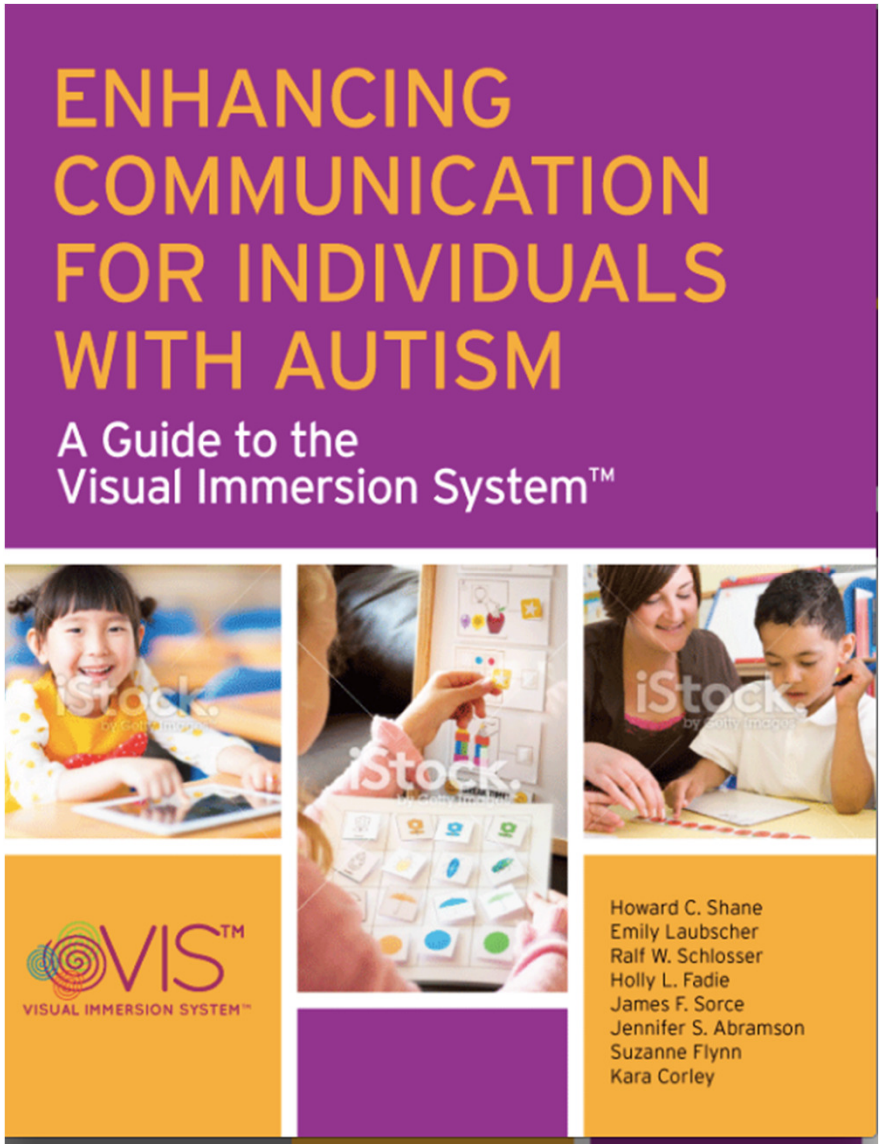
**Kara T. Smith**

**May 15, 2015**




**Released 2008**




**Available on Amazon as of October 2014**

# PREFACE

He became interested in pictures "and very soon knew an inordinate number of the pictures in a set of *Compton's Encyclopedia*." He knew the pictures of the presidents "and knew most of the pictures of his ancestors and kinfolks on both sides of the house." He quickly learned the whole alphabet "backward as well as forward" and to count to 100. (Kanner, 1943)

These prophetic words portray Case #1 in the seminal paper that described the defining symptomatology and then the enduring label to the condition known as autism (Kanner, 1943). Given our contemporary recognition of autistic traits, it will not surprise readers of this book, including parents, clinicians, teachers, and others, to learn that "autism's first child" (Donvan & Zucker, 2010) held a fervent proclivity for visual subject matter.

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# Visual Immersion System™ (VIS) Definition & Overview

- Definition
- Framework for the VIS
  - VIM
  - VOM
  - VEM
- Seven Functions of Communication
- Visual Immersion, Sign Language Analogy
- Tools and Apps

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# Visual Immersion System (VIS)

- **A visual instruction system for teaching language concepts that tend to be difficult for people with moderate to severe autism (e.g., verbs, prepositions and attributes)**
- **VIS is a closed visual language, limited to the essential vocabulary and syntax needed to support the comprehension and expression of practical, everyday communication exchanges**
- **Training includes instruction in the *virtual* environment (video clips) and *tabletop environment* (photographs, toy figurines and miniature objects), then extends to the *natural* environment to enable functional communication at home, school and community.**

# Key Ingredients of VIS

- **Visual language for both language comprehension and expression**
- **Both mentors and learners use the same visual symbols to communicate with one another**
- **Targets language comprehension: viewed as foundation for expression**
- **Advanced computer and video technologies attract and maintain children's attention, provide compelling multimedia language instruction, and enable the use of *dynamic* visual symbols**
- **Immersion is Immersion**

# Three Modes of Visual Support Addressed in VIS™

**1) Visual Instructional Mode (VIM):**

**Visual cues used for the purpose of comprehension, which are imposed as an alternative to, or in conjunction with, speech.**

**2) Visual Expressive Mode (VEM):**

**Visual cues used for the purpose of expressive communication.**

**3) Visual Organizational Mode (VOM):**

**Visual cues used to represent the organization of an activity, routine, script, or schedule.**

# SEVEN COMMUNICATIVE FUNCTIONS

# Communicative Functions

**Communication instruction for moderate to severe ASD:**

1. **Protesting and Refusal**
2. **Organization and Transitions**

**(1 & 2 language that supports organization and control)**

3. **Requests**
4. **Directives**
5. **Comments**
6. **Questions**
7. **Social Pragmatics**

**3 - 7 language for everyday functions**

# Communicative Functions

**Instruction of the seven functions should not be viewed as hierarchical – not a serial process**

# Communicative Functions

**Communicative Functions do not include abstract language (*…with liberty and justice for all*), passive voice (*The book was read by the boy*), complex syntactic structures (*If he hadn't checked the weather in the morning, then he would have forgotten to bring his umbrella*), figurative language (*She flew to the bookstore)* or humor (*Why did the chicken cross the road?*).**

**With regard to communication, there is an overwhelming clinical focus on the requesting**

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# *Picture Exchange Communication System* (PECS)

## I + WANT + ITEM = PLEASE

# *Visual Immersion, Sign Language Analogy*

# DIFFERENCES BETWEEN GRIDS DISPLAYS & VISUAL SCENE DISPLAYS

# Display Formats

**Grid Display – A grate-like screen arrangement containing a target areas into which symbols or text are placed. Targets serve as either a vocabulary end point or lead to relational targets (symbols) on other screens.**

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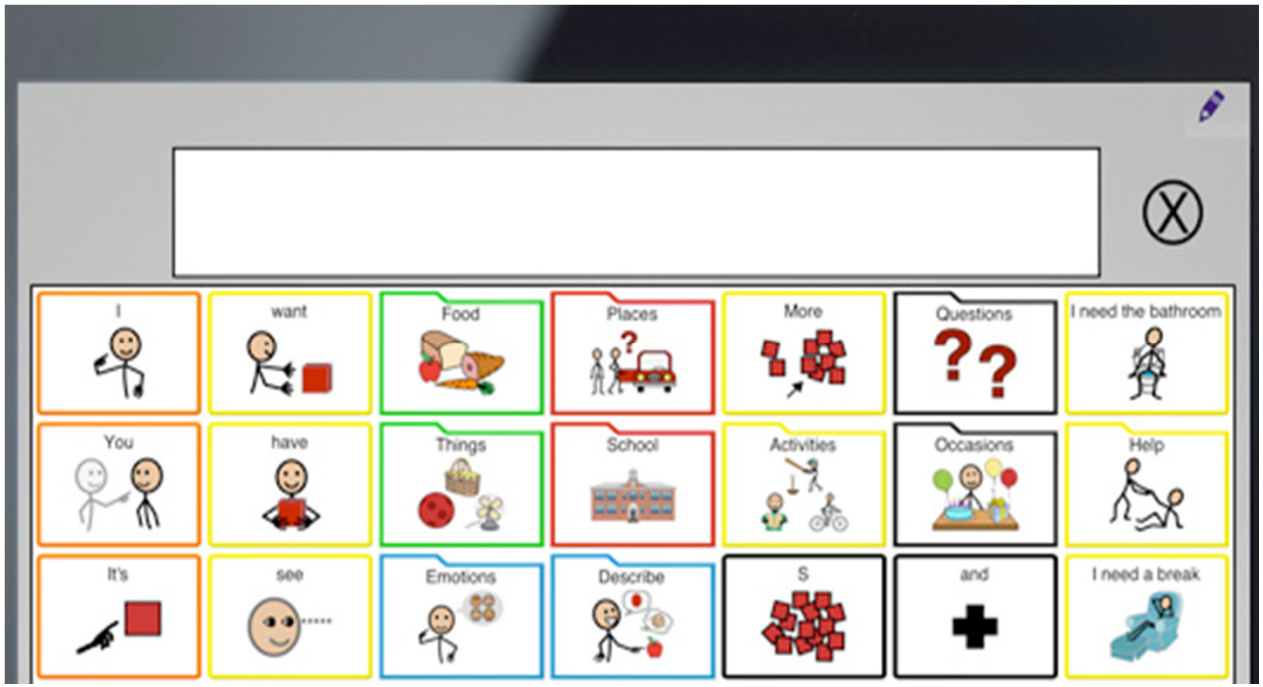
# Grid Displays

- **Symbols contained within grid template sentences**
- **Message window**



# Visual Scene Display Format

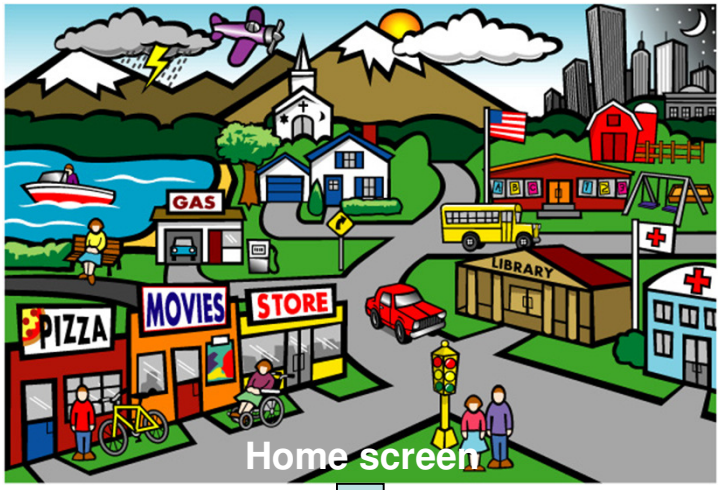
**Visual Scene Display - Visual scene displays (VSDs) portray events, people, actions, objects and activities against the backgrounds within which they occur or exist. These scenes are used as an interface to language and communication. A VSD may represent:**

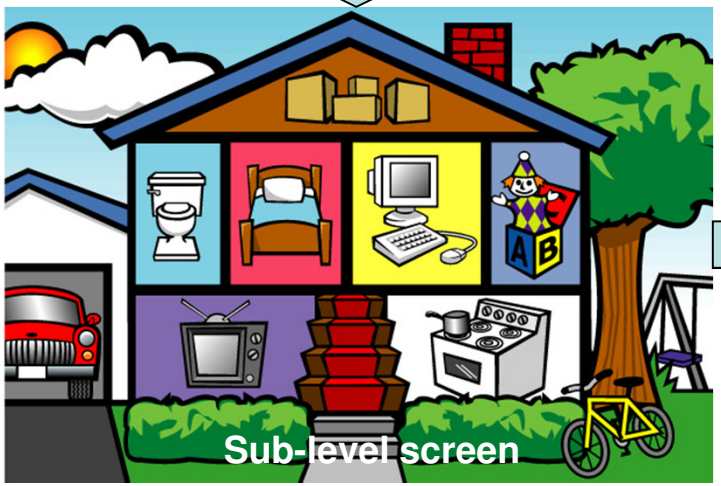
**• a generic context (e.g., a drawing of a house with a yard, an office with workers or a school room with a teacher and students.)**

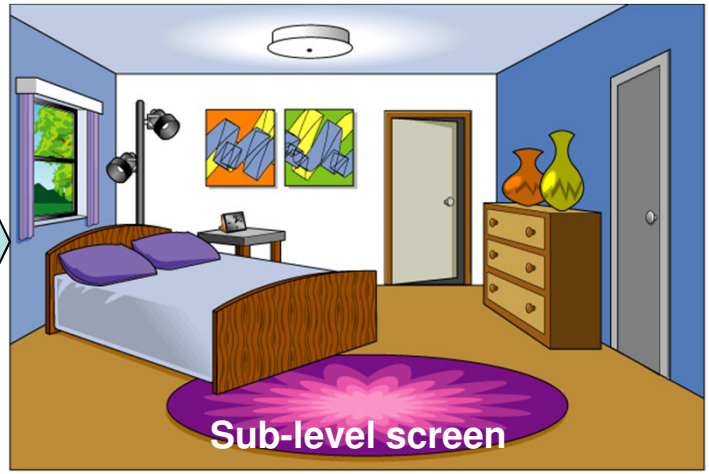
**• a personalized context (e.g., a digital photo of a child playing in his bedroom or a picture of the family on a beach while on vacation.)**

***ACN NEWS, August 2004***

# Scene Based Display



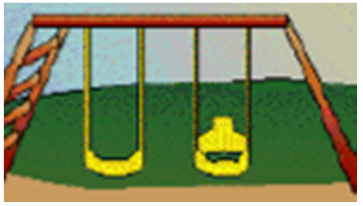

***Companion* (Circa 1995) –**

**Commercialized as screen format option on the *Freestyle***

# Recognition of de-constructed Scene

## Visual Scene

## Deconstructed Elements



# Display Formats

## Visual Scene Displays

1. Relatively recent display format
2. Expanded due to technological advancements
3. Are recognized earlier than grid displays at earlier developmental age
4. Seemingly more intuitive - - when compared to de-constructed scene
5. Scenes phrase or concept based; grids element based
6. Scenes – circumvent language

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# Visual Scene Display

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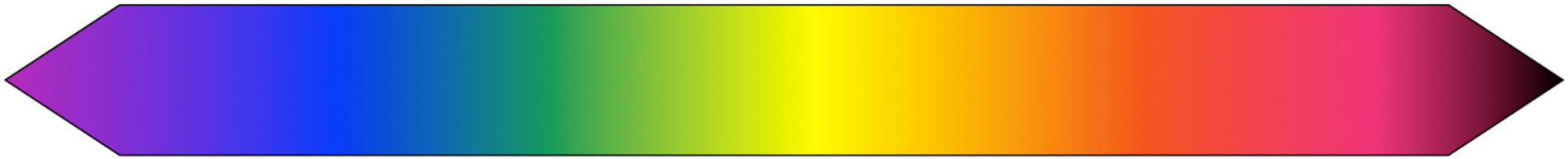
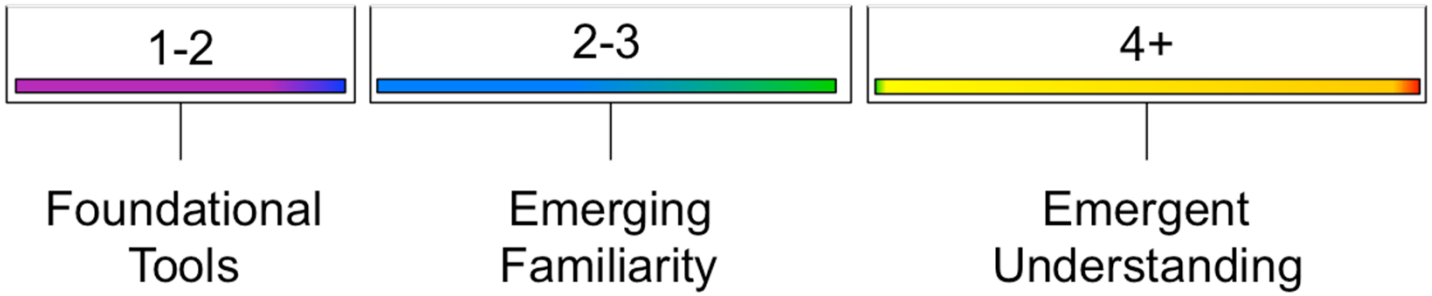
# DEVELOPMENTAL TRAJECTORY AND TEACHING VISUAL LANGUAGE

# Profile of Potential Consumers of VIS



1. Pre-scene → 2. Visual Scene Display → 3. Transition (to Grid) → 4. Grid Display → 5. Transition (to Text) → 6. Text Display



# Developmental Trajectory

**Clinical observation (and limited research) suggests a developmental continuum that extends from Noun Elements, Scene Cues and Visual Scene Display comprehension during early developmental periods to Grid Display made up of elements (and Text) at later stages**

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# Developmental Trajectory

**For the vast majority of individuals with moderate to severe ASD they rarely use more than the communicative function of requesting because:**

1. **Not motivated to share**
2. **Difficulty with Joint attention**
3. **Inability to combine the visual elements of language – and when they do combine is in a scripted format**

# Clinical Reality of Language Comprehension in Moderate to Severe Autism

- Greater Noun Comprehension (Spoken And Visual)
- Limited Understanding (Verbs, Prepositions, Adjectives, Question Forms)
- Spoken Language Within Routines Often Understood
- Context Facilitates Understanding

# Teaching Visual Language (VIM & VEM)

- **Static And Dynamic Scene Cues**
- **Element Cues**
- **Topic Displays**
- **Mixed Display**

# Visual Language Instructional Phases:

- Learner progresses through all/some of three phases of visual language symbols, from concrete to abstract representations:

**Foundational Tools**

*Dynamic Scene Cues*: full-motion video clips of action scenes

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# Directive Speech Alone

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# Directive – With Scene Cue

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# Visual Language Instructional Phases

- Learner progresses through all/some of three phases of visual language symbols, from concrete to abstract representations:

**Foundational Tools**

*Dynamic Scene Cues*: full-motion video clips of action scenes

**Emerging Familiarity**

*Static Scene Cues*: photographs that capture a prototypical moment in the action scene

# Example of ***Static*** Scene Cue

*Car pushes ball*

# Implications of Scene Cue Mastery

- Use of dynamic and static cues bypasses language processor
  - Due to load on language processor when using elements, some children may use static scenes as their communication system
- Mastery of static scene cues is a significant accomplishment
  - Can be used to promote general understanding and communication related to:
    - Daily Living Skills
    - Play
    - Transitions
    - Requesting
    - Commenting
    - Clarifying
    - Directives

# Visual Language Instructional Phases

- Learner progresses through all/some of three phases of visual language symbols, from concrete to abstract representations:

**Foundational Tools**

*Dynamic Scene Cues*: full-motion video clips of action scenes

**Emergent Familiarity**

*Static Scene Cues*: photographs that capture a prototypical moment in the action scene

**Emergent Understanding**

*Language Element Cues*: graphic icons representing each of the individual linguistic components that comprise an action scene (e.g., subject, object, verb, preposition, adjective, etc.)

# Element Cues


**Figure 11.** An example of a message string comprised of the three element cues, 'The **man pushes** the **car**.'

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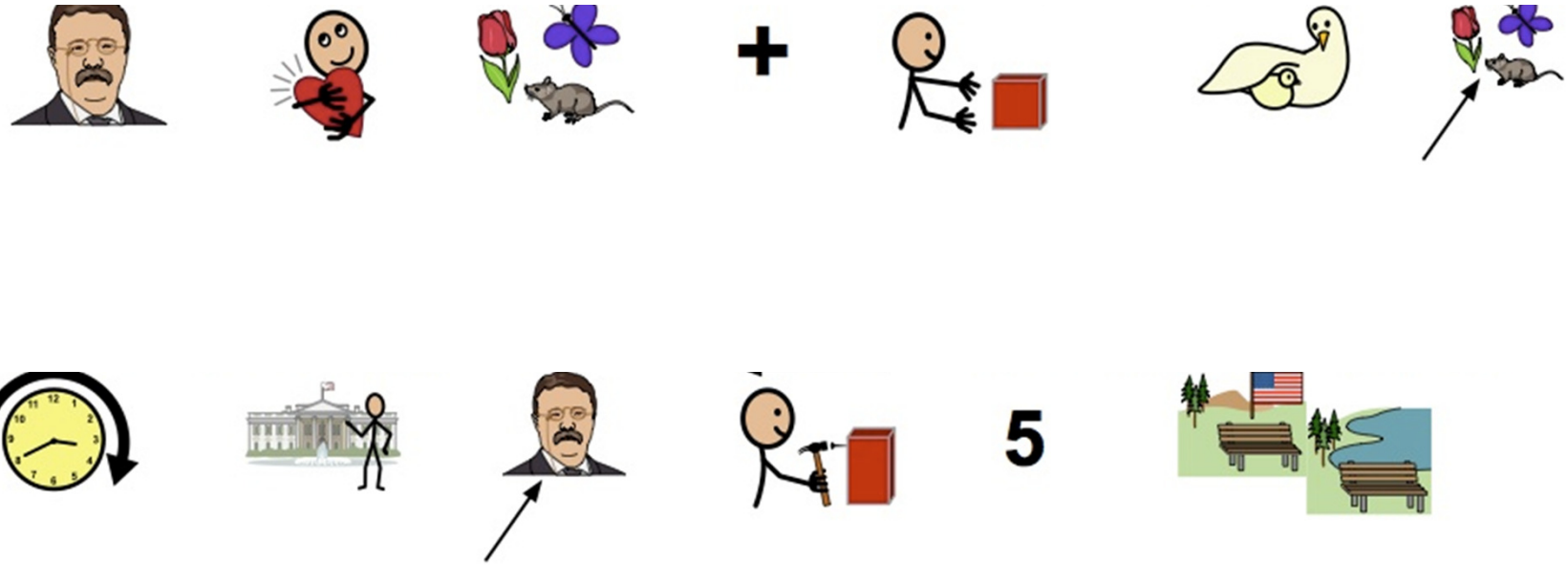
# *News -2-You*: Example



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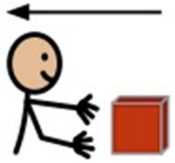
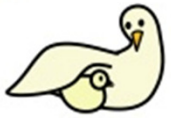
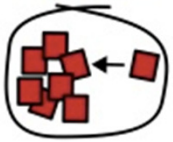
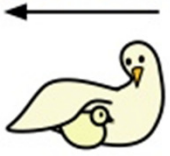
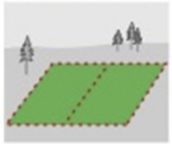
# *News -2-You*: Example

Theodore  loved  nature  and + wanted  to protect  it. 

While  president,  he  made  five 5 national  parks.

He  also  protected  historic  buildings  and +  areas.

# Symbolate: Language Comprehension?

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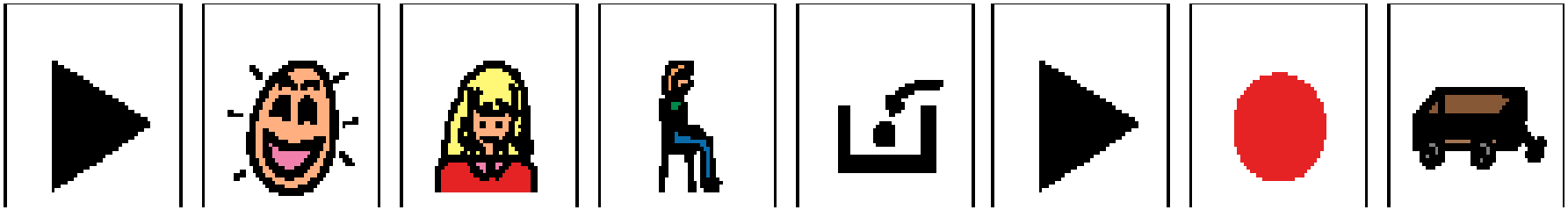

- Stringing symbols together does not automatically result in comprehension
- Learners must first have a knowledge of language elements and semantic relationships
- Paradoxically, stringing symbols together may actually interfere with comprehension

# Example of a *Mixed* Display (with static graphic)

# Example of a *Mixed* Display (with Animation & Sound)

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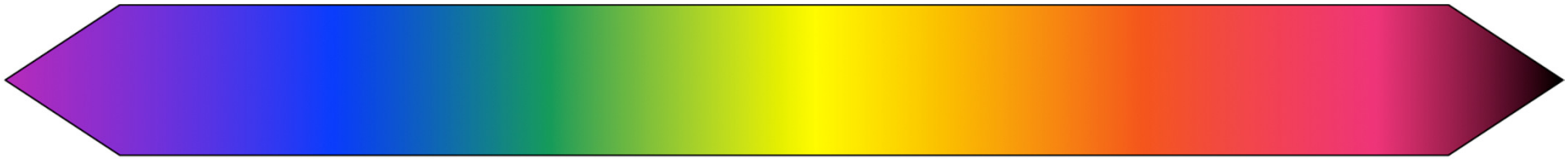
# Mixed Display Dynamic Example

# TOOLS AND APPS USED IN THE VIS

# Consumers of VIS - Review



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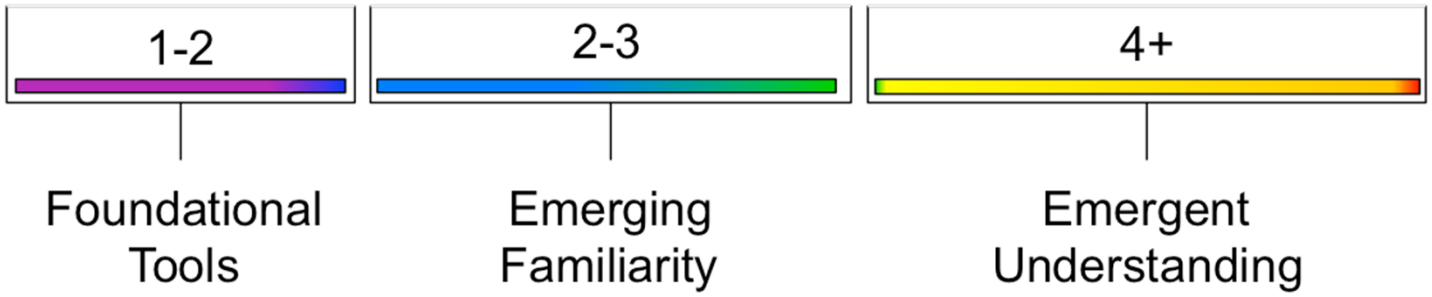

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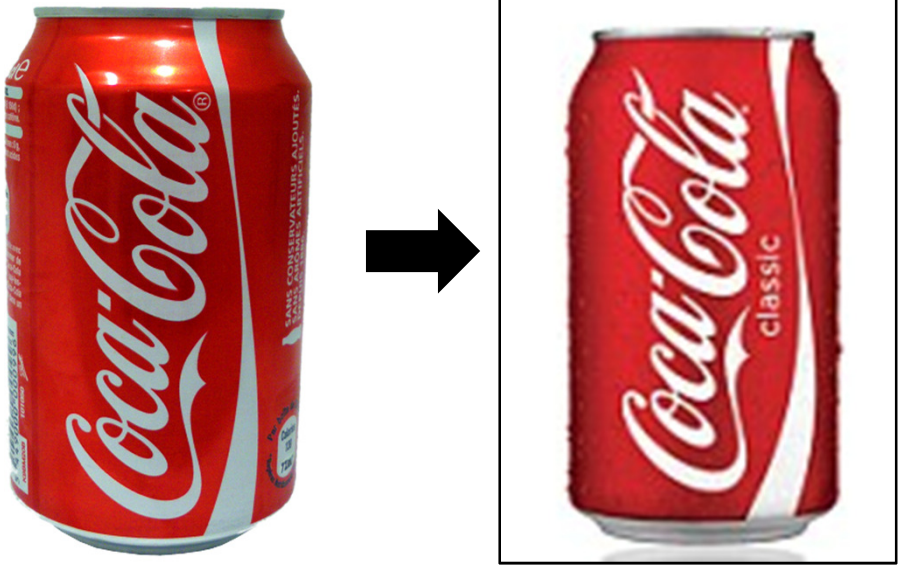
# Foundational: Tools & Apps

## Low Tech

- Object proxies
- Photographs (3-D & 2-D)

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# Foundational: Tools & Apps


**High Tech**

- Tablet/Smartphone Camera
- GoTalk NOW
- iModeling
- Scene Speak
- AutisMate*



*Will cover in Emerging Familiarity

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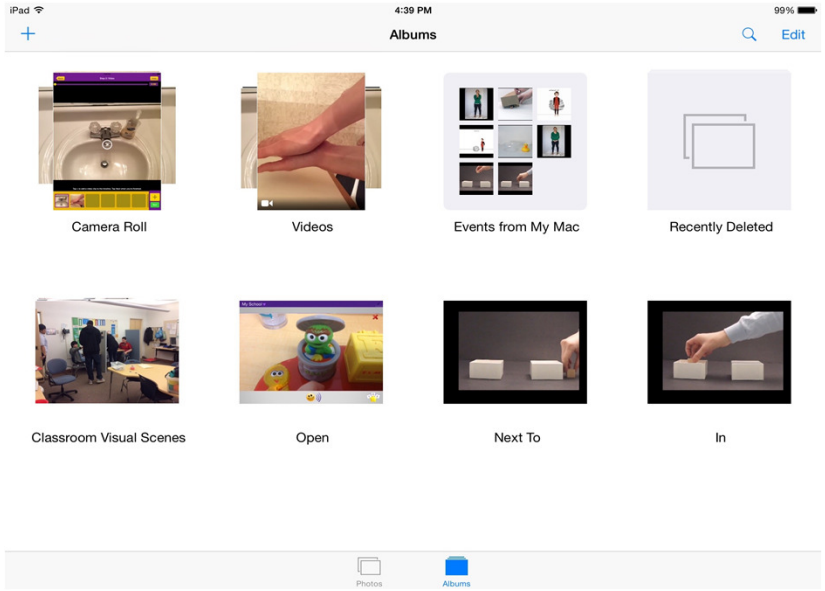
# Foundational: Tools & Apps

## Camera - *Free*




## GoTalk NOW - *$79.99*

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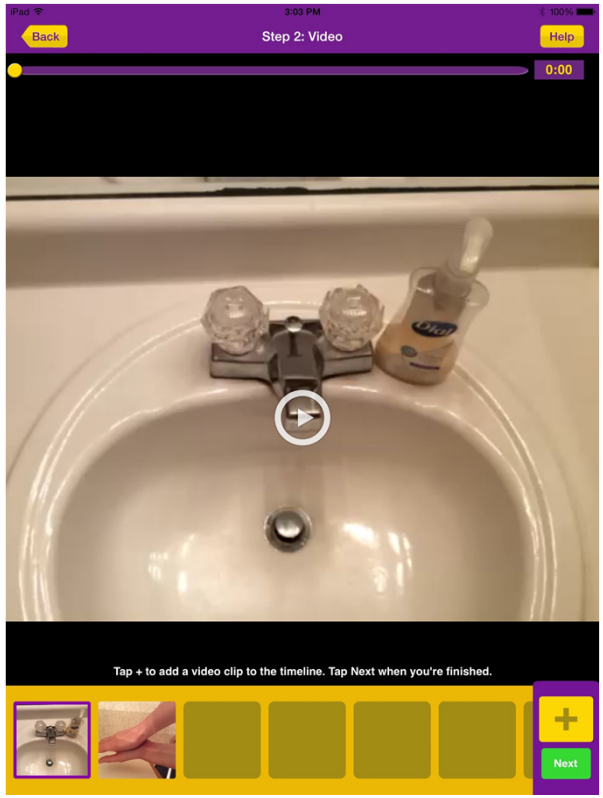
# Foundational: Tools & Apps

## iModeling - *$11.99*




## SceneSpeak - *$9.99*


May 2015

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# Emerging Familiarity: Tools & Apps

**Low Tech**

- Buildable Scene Displays
- Element cues paired with verbal language in the moment
- Graphic symbols paired with verbal language in the moment
- Mixed Displays

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# Emerging Familiarity: Tools & Apps


**High Tech**

- GoTalk NOW
- AutisMate
- Puddingstone
- SceneSpeak
- MyPlayhome (app series)

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# Emerging Familiarity: Tools & Apps

**Puddingstone - *$19.99***


**MyPlayhome - *$3.99***

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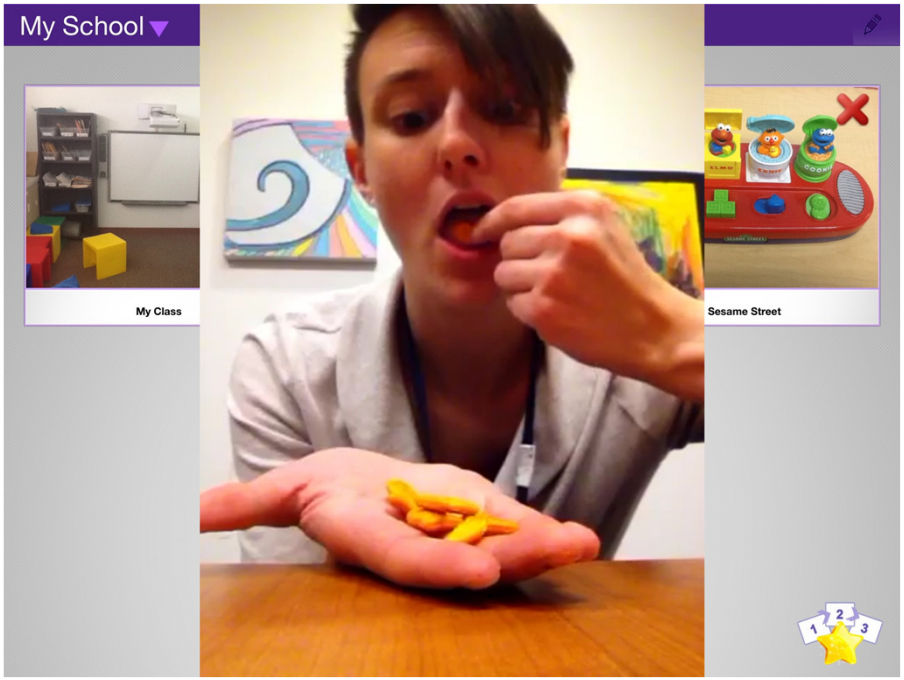
# Foundational/Emerging Familiarity: Tools & Apps

**AutisMate - *$149.99***

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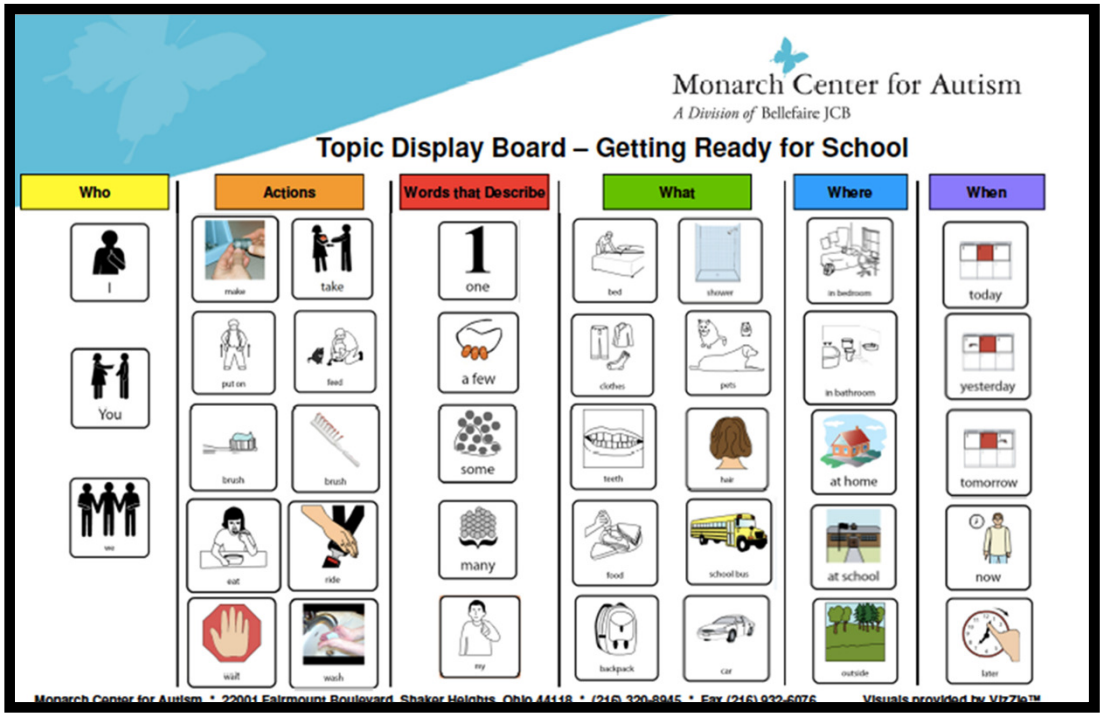
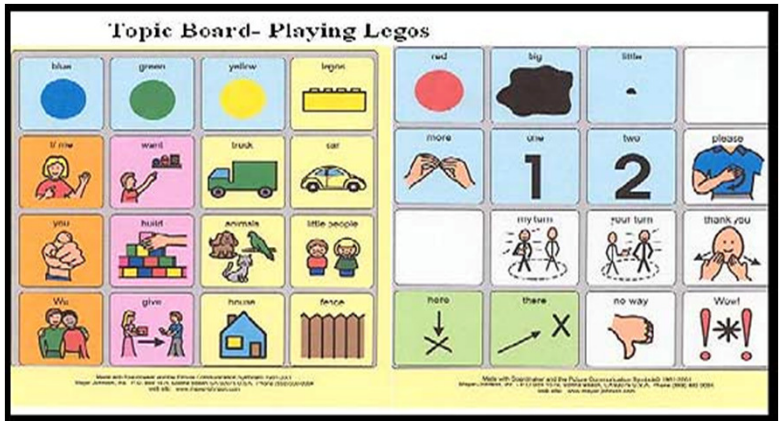
# Emergent Understanding: Tools & Apps




## Low Tech

- Topic Display Boards



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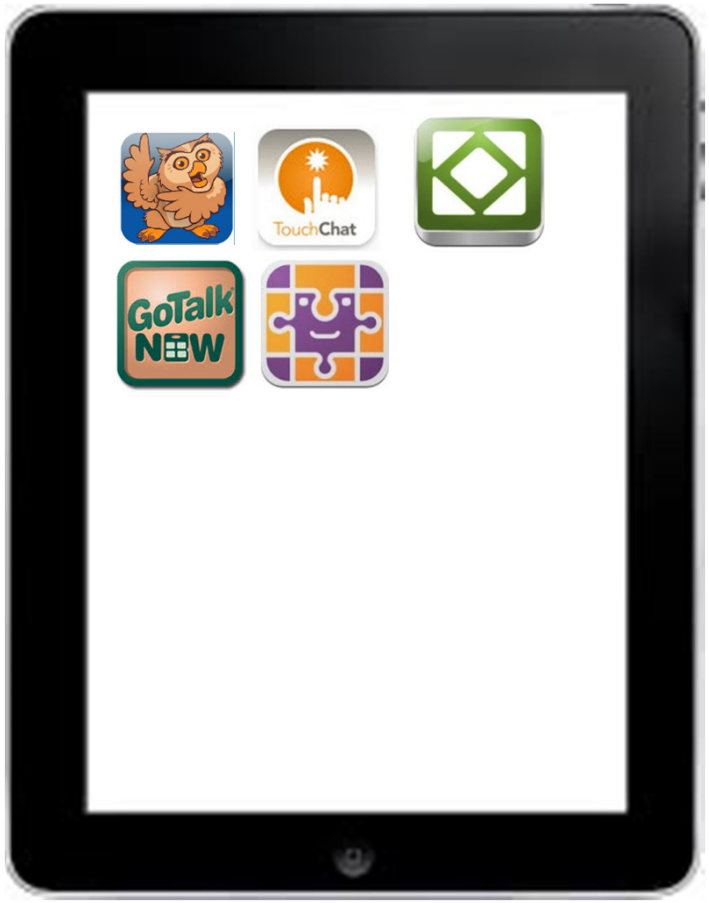
# Emergent Understanding: Tools & Apps




**High Tech**

- GoTalk NOW
- AutisMate
- TouchChat
- Sono Flex
- Proloquo2Go

# Q & A

# Apps by Consumer Group

| App | App Description | VIM/VEM* | Cost | 1 Pre-scene | 2 VSD | 3 Transition to Grid | 4 Grid Display | 5 Transition to Text |
|---|---|---|---|---|---|---|---|---|
| Camera | Take photos and videos | VIM | Free | ✔ | ✔ | | | |
| GoTalk NOW | Create scene displays with hotspots; embed videos; create grid displays; boards can link to one another | VIM VEM | 79.99 | ✔ | ✔ | | ✔ | ✔ |
| iModeling | Combine video clips into a sequence | VIM | 11.99 | ✔ | | | | |
| AutisMate | Use video clips, symbols, scene displays and grid displays | VIM VEM | 149.99 | ✔ | ✔ | ✔ | ✔ | |
| Scene Speak | Create scene displays with hotspots; scenes are organized as individual files | VIM VEM | 9.99 | | ✔ | | | |
| PuddingStone | Uses scenes and animated graphics to teach language with embedded element cues | VIM | 19.99 | | ✔ | ✔ | ✔ | |
| My Playhome | Interactive scenes with interactive and moveable characters | VIM | 3.99 | | ✔ | | | |
| TouchChat | Grid-based communication system with the option for some visual scene displays | VEM | 149.99 | | | ✔ | ✔ | ✔ |
| Sono Flex | Grid based communication system | VEM | 99.99 | | | | ✔ | ✔ |
| Proloquo2Go | Grid based communication system | VEM | 249.99 | | | | ✔ | ✔ |

*VIM - Visual Instruction Mode
VEM - Visuam Expression Mode