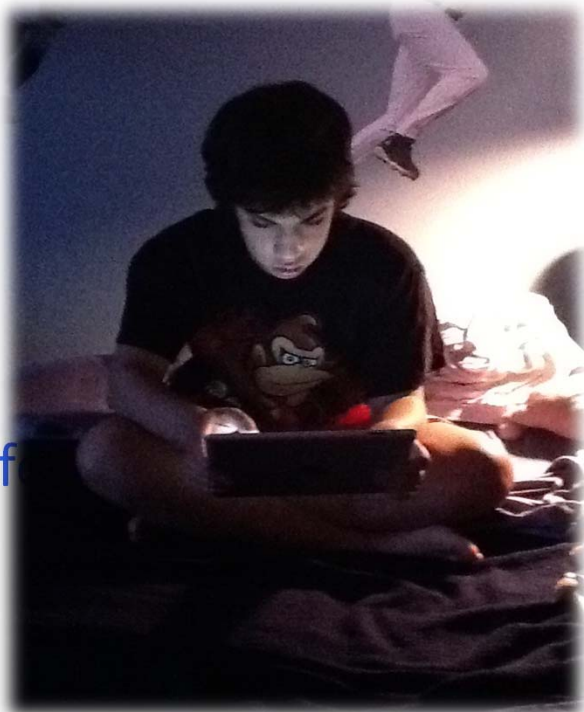


USE OF APP TECHNOLOGY BY INDIVIDUALS WITH FRAGILE X

and a review of some apps we recommend



Conf

Presented by
H. Laurie Yankowitz, Ed.D.
Vicki Sudhalter, Ph.D.

13th National Fragile X

Miami, Florida

July 28, 2012

Matthew absorbed by his iPad

EXCITEMENT ABOUT iPADS:

Excerpt from promotional video

“Apple – iPad, Year One

featuring Howard Shane, Ph.D., Director of Communication Enhancement,
Boston Childrens Hospital and Leo’s Mom

NOTE: VIDEO FILES TOO LARGE TO UPLOAD

Please access using search engines as noted

- Google “ Apple – iPad, Year One” on YouTube
to view video



USAGE OF APPS BY INDIVIDUALS WITH FXS: Survey Results

WHAT WE WANTED TO KNOW:

How are apps currently being used by folks with FXS at home?

Is it making a significant difference in quality of life, and if so, how?

What are their favorite apps, and which apps do families recommend?

What are the top apps for math, reading, writing, and communication?

<https://www.surveymonkey.com/s/TabletAppTechnology>

Apps: do they make life better for people w/ FXS?

How are iPads being used by individuals w/ at home?



To watch you tube videos, tv shows, movies, and play games...

What were named the top 5 favorite apps?

You Tube (11), Angry Birds (5), Google (4), iTunes (3), and....

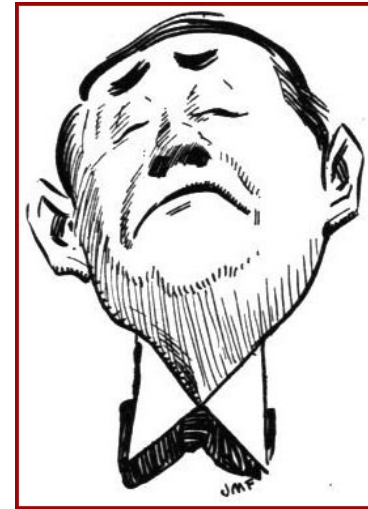
It's not ALL about YouTube

Pizza Fractions, First Words Deluxe, PBS Kids, My Talk Tools, Netflix, Proloquo2Go, and...the Weather Channel (2).....and.....



Apps for Individuals with FXS?

...Not an exclusive club!



Disclaimer: No money back guarantee for recommended apps

Samples of some of the best apps for math, reading, writing and communication

We asked:

What are the 3 best apps you have found for
helping your family member with....

Apps Being Used by Our Respondents

MATH



PARK MATH

MONKEY MATH

PIZZA FRACTIONS

MOTION MATH

UMI NUMBERS

HUNGRY FISH

MATH BINGO

INTRO TO MATH BY MONTESSORIUM

COIN MATH

MULTIPLICATION CITY

MATHGIRL ADD

KIDMATH 5-IN-1

TEACH ME

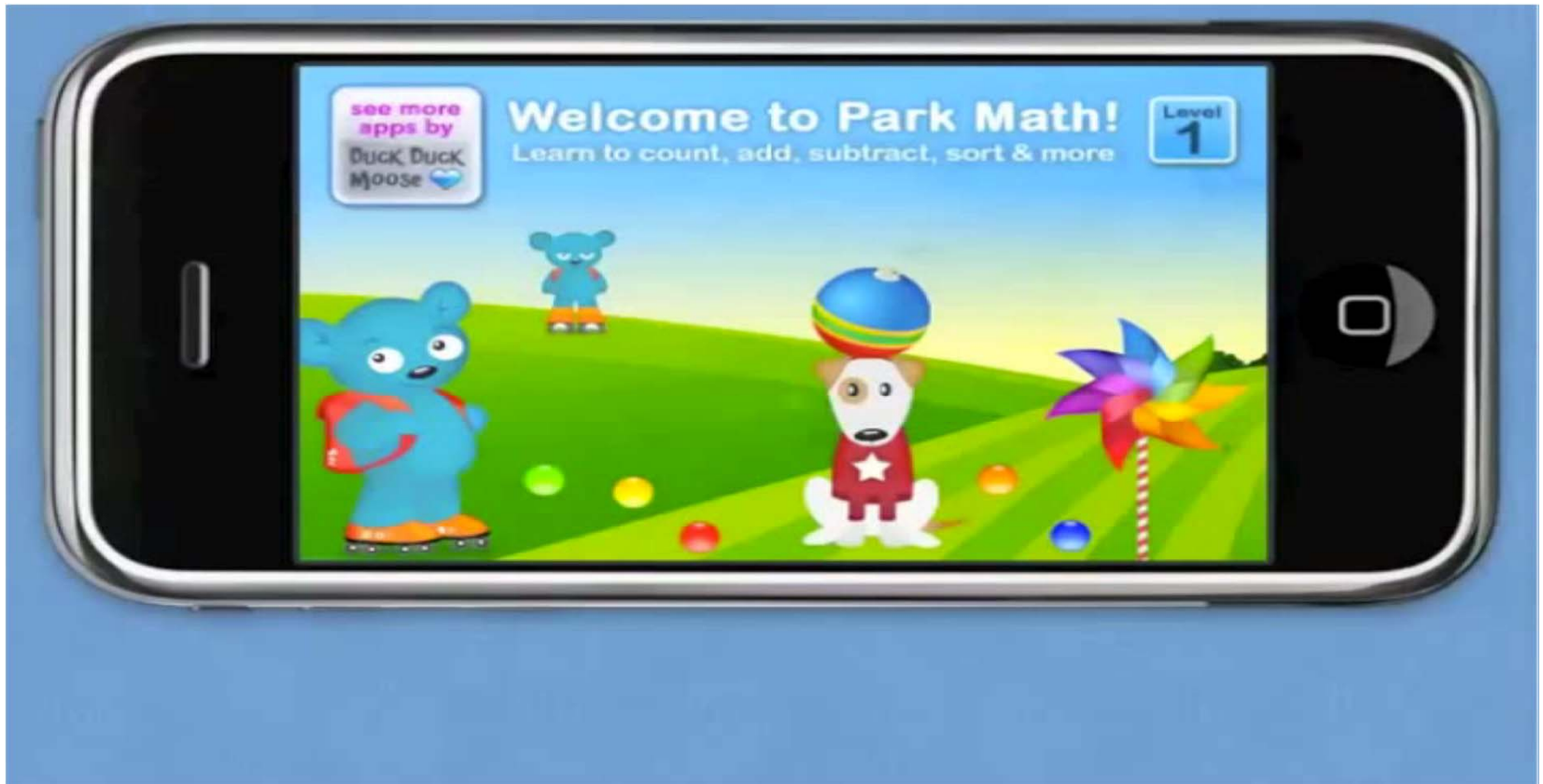
FIRST COUNT

HYPERBLAST

COUNTING BEAR

PARK MATH

Google “Park Math” in YouTube or see
videoreview at www.a4cwsn.com



MATH BINGO

Search for video in YouTube



Reading



Reading A – Z

Photo Touch Sight Words

Green Eggs and Ham

Rocket Reads

Zoozoo readables

Nick Jr.'s A - Z

Curious George

I Like Books

Play sight words

Penelope the Purple Pirate

First Words Deluxe

Word Wizard

Alphabooks

TV Guide (!)

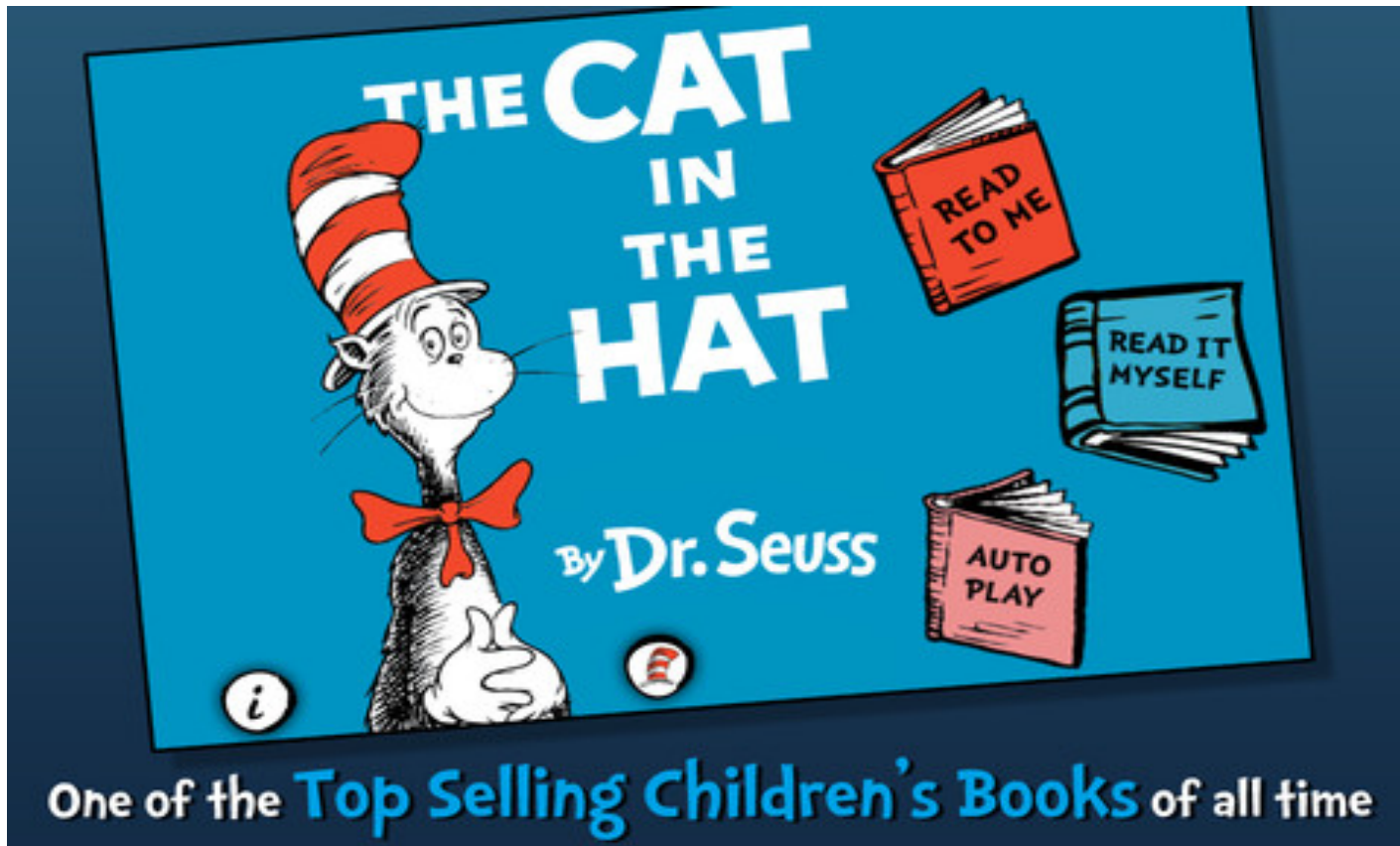
Build a Word

Peekaboo HD

A number of respondents noted their kids were especially responsive to apps featuring favorite cartoon characters

Flash Cards





http://www.youtube.com/watch?list=PL51A4DD08D05DDC8A&feature=player_detailpage&v=j3uZq8S6oJc



- <http://a4cwsn.com/2011/04/nosy-crow-the-three-little-pigs/>

Gulliver's Travels



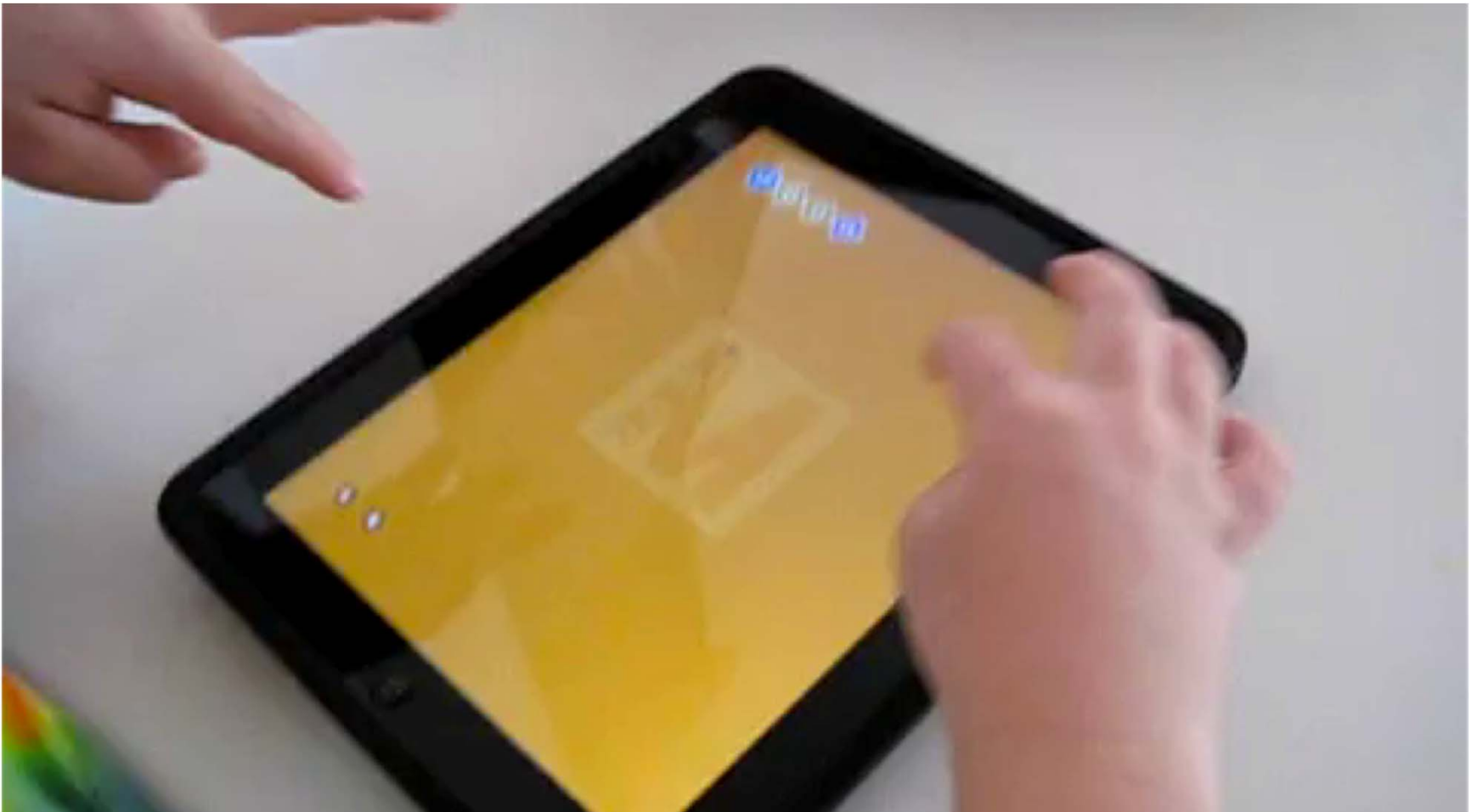
Hero of the Rails



Writing Apps

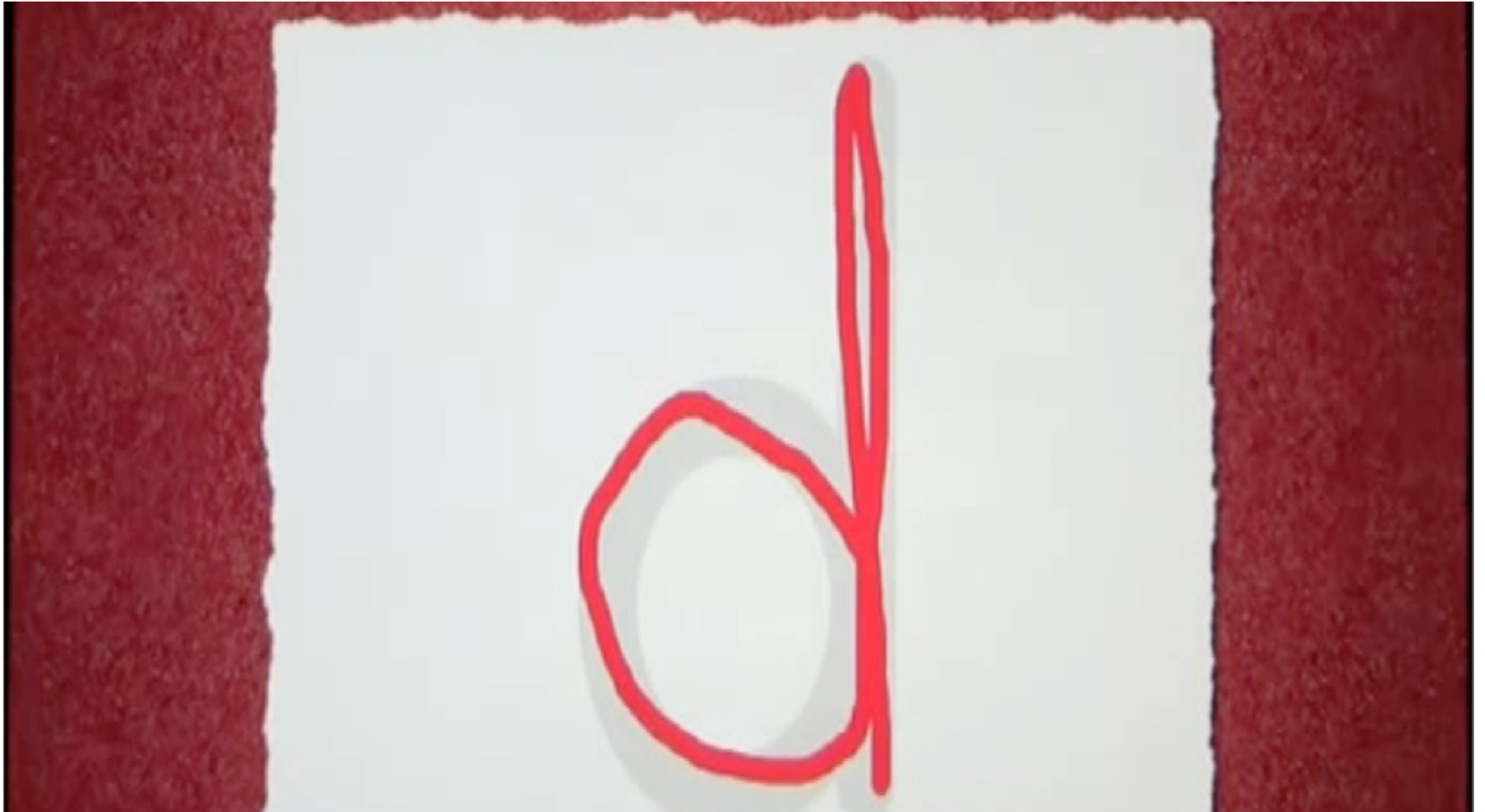
- I WRITE WORDS
- LEARN TO WRITE
- DOTS FOR TOTS
- SHOW ME
- LETTER SCHOOL
- DEXTERIA

I Write Words



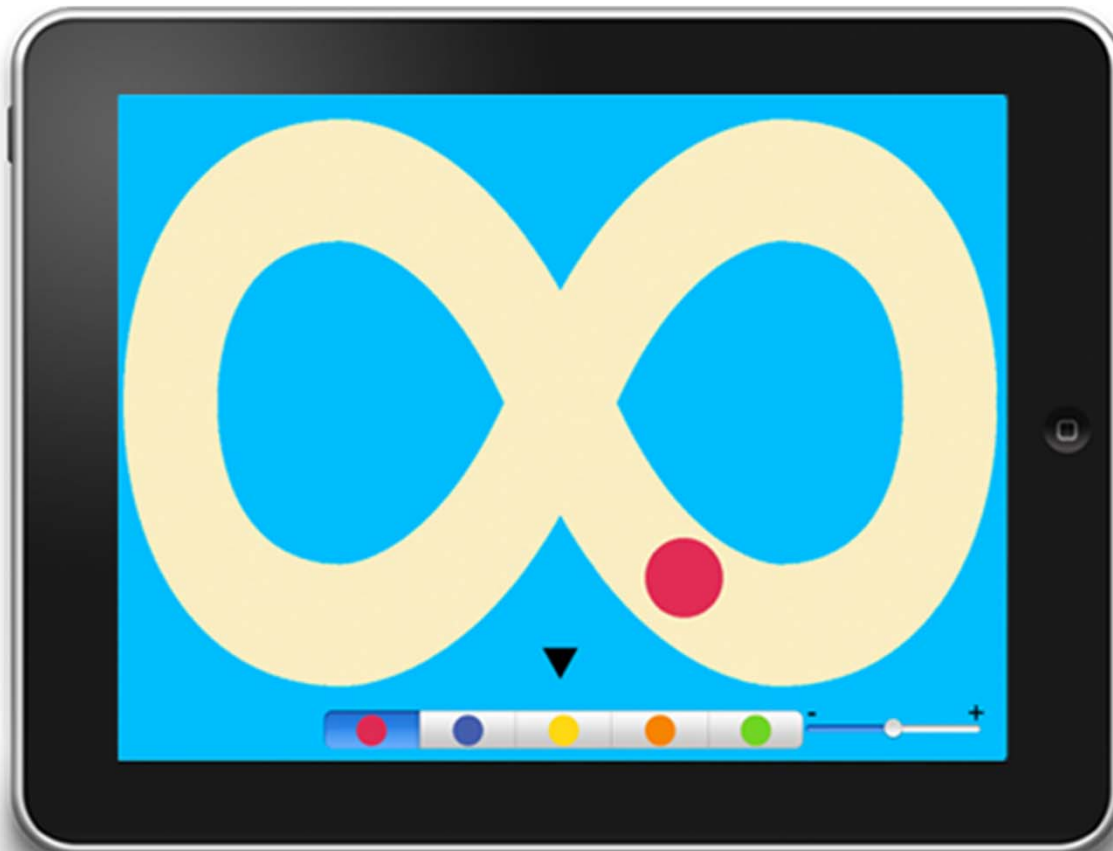
<http://www.youtube.com/watch?v=8ZTkPtAyqOY&feature=fvwr&NR=1>

Dexteria



Infinitrack

<http://a4cwsn.com/2011/03/infinitrack/>



Communication Apps

- Spingo Learn to Talk
- Tap to Talk Conversation Builder
- Verbal Victor Verbally
- Proloquo2go Touch Chat
- (One Voice) iPrompts
- (Grace) Sight Words
- My Talk Tools Facebook
- Facetime (like Skype)

Music

Dance Pet Piano (Virtuoso Piano Drums)



Apps for Social Skills

- Model Me Kids
 - Social Express
- Functional Skills Systems
 - Going places
 - (Pictello)
- Toca Boca Tea Party
 - Autism Express

Functional Skills: Communication

The image shows a screenshot of a digital interface for Functional Skills: Communication. On the left side, there is a vertical list of three skill categories, each accompanied by a small video thumbnail:

- Listening
- Speaking
- Answering the Door

In the center of the interface is a large, semi-transparent silhouette of a human head in profile, facing right. Inside the head, there is a collection of seven icons representing various accessibility needs:

- A red circle with a white figure and a slash (no entry).
- A blue square with a white wheelchair symbol.
- A yellow diamond with a black exclamation mark (warning).
- A green square with a white figure of a person with a cane.
- A yellow triangle with a black exclamation mark (warning).
- A green square with a white figure of a person with a cane.
- A red square with a white fork and knife symbol.

On the right side of the interface, there are three blue circular arrows pointing to the right, indicating a sequence of steps or a navigation menu.

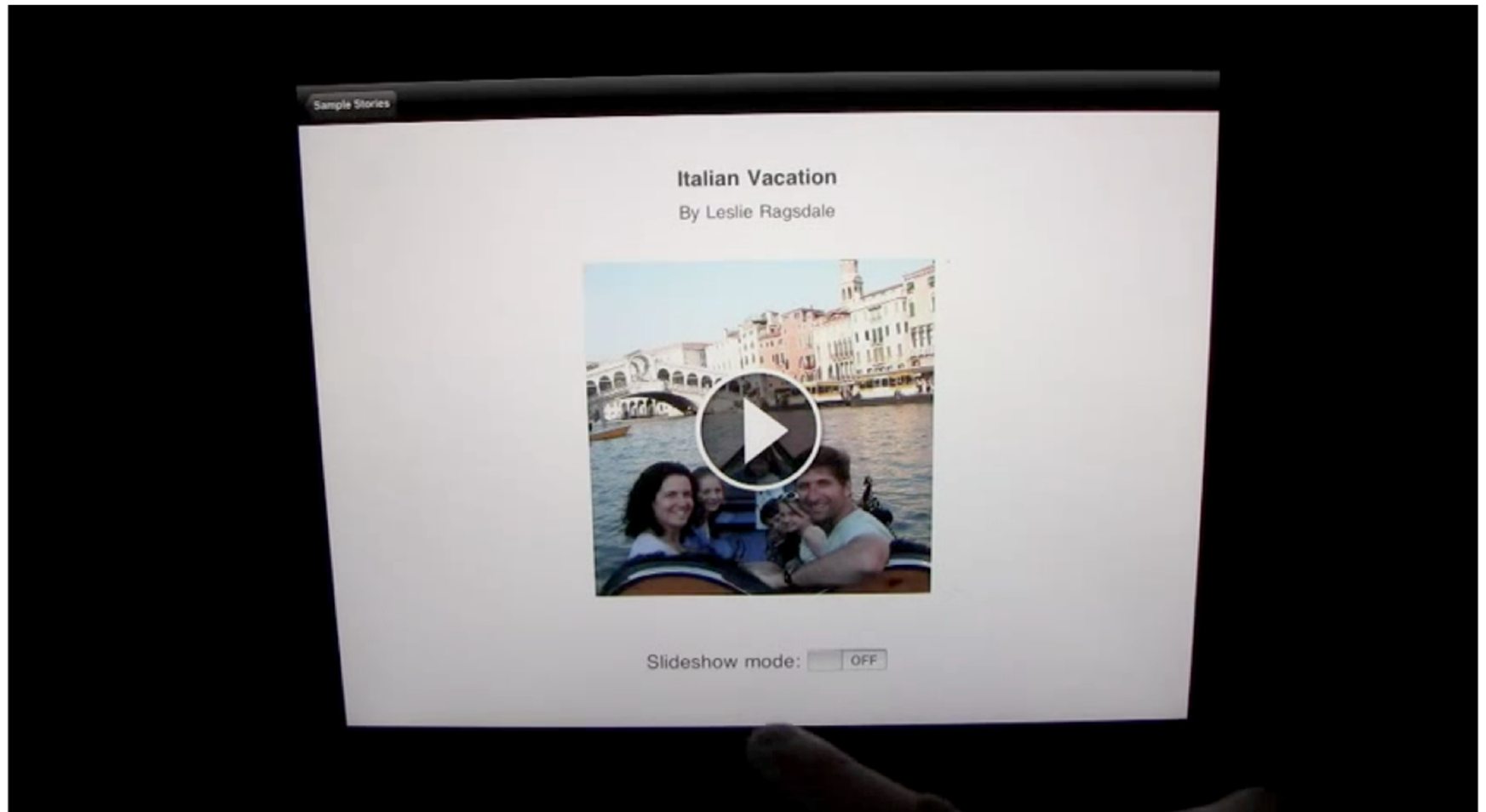
Language Builder



<http://a4cwsn.com/2011/02/language-builder/>

http://www.youtube.com/watch?v=goD9IQ_9rCA

Pictello



Also see: <http://a4cwsn.com/2011/02/icomunicate/>

CHOREPAD

The screenshot shows the CHOREPAD app interface. At the top, there's a status bar with 'LATE 3G', '19:54', and '84%' battery. Below that, a navigation bar includes 'Users', 'Chore Chest', a profile icon, 'A user' (with 22 checkmarks and 25 stars), a trophy icon, and 'Payout'. The main area is a calendar grid with columns for 'Sun' (02/27), 'Mon' (02/28), 'Tue' (03/01), 'Wed' (03/02), 'Thu' (03/03), 'Fri' (03/04), and 'Sat' (03/05). The 'Sat' column is highlighted in yellow. The rows represent chores: 'Homework' (5 stars, 14 points), 'Read a Book' (1 star, 6 points), 'Brush teeth morning' (1 star, 3 points), 'Tidy up toys' (2 stars, 8 points), 'Trash' (2 stars, 10 points), and 'Say excuse me after dinner' (1 star, 4 points). Green checkmarks indicate completion on specific days. A 'Help' button is at the bottom right.

Chores	Sun 02/27	Mon 02/28	Tue 03/01	Wed 03/02	Thu 03/03	Fri 03/04	Sat 03/05
Homework 5 stars, 14 points	✓	✓		✓	✓		
Read a Book 1 star, 6 points	✓		✓			✓	
Brush teeth morning 1 star, 3 points	✓			✓		✓	
Tidy up toys 2 stars, 8 points	✓		✓		✓		
Trash 2 stars, 10 points	✓	✓	✓	✓		✓	
Say excuse me after dinner 1 star, 4 points		✓		✓	✓	✓	

Weather Doodle



Accommodating FXS challenges

--MANY ways to individualize--



- Pace (pre-set speed or manual clicking)
- Audio (computer, your voice, their voice, sound effects, on/off)
- Visual (choose preferred images, use personal photos)



--Level of difficulty



App Appeal



VERY VISUAL

(bonus: no expectation of eye contact)

Self-determined



Good sense of humor



THANK YOU and HAPPY APPING!

Very special thanks to all the Mothers , Fathers,
and others who took the time to complete our
survey!

THANKS TO GARY JAMES AND YOU TUBE FOR MAKING VIDEO
DEMONSTRATIONS AVAILABLE

To receive a copy of this slide presentation (with bonus slides) by email,
please contact:

Laurie Yankowitz, Ed.D.
Lyankowitz@aol.com

References and Resources

- www.a4cwsn.com
Dr. Gary James provides over 500 video reviews and demos of apps for children with special needs

How apps, touch screens are helping children with special needs

http://www.mercurynews.com/business/ci_18478215

Smartphones, Tablets Provide Therapy for Cerebral Palsy, Autism

<http://www.mobiledia.com/news/99818.html>

Video of Professor Rhonda McEwen presenting her research on iPads and iPhone touch technology in the classroom

<http://vimeo.com/17560061>

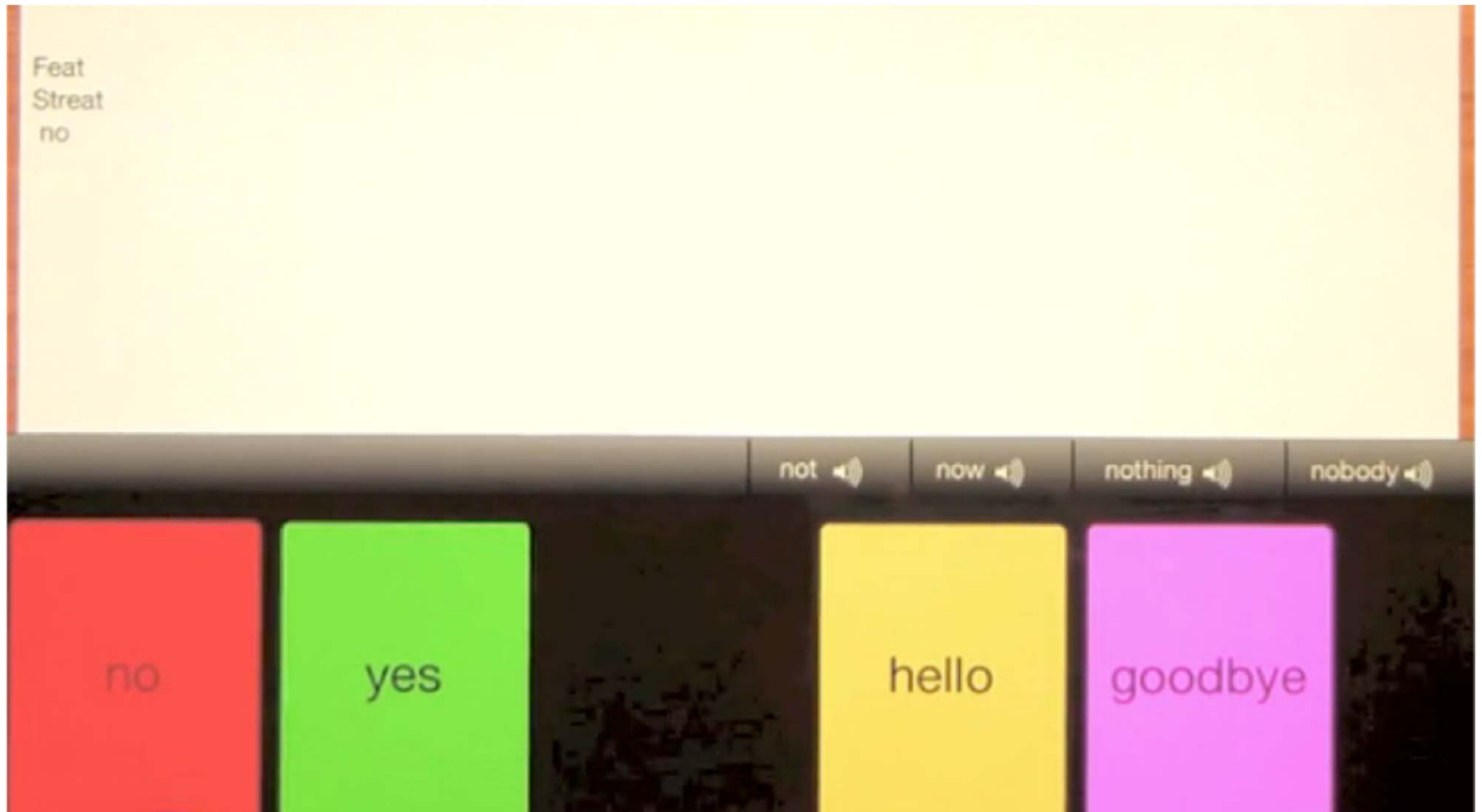
References (cont'd)

- Kuttler, Myles, & Carlson (1998). The use of social stories to reduce precursors to tantrum behavior in a student with autism. Focus on Autism and Other Developmental Disabilities, 13 (3), 176 – 182.
(copy of article available from Dr. Yankowitz: Lyankowitz@aol.com:
the student studied had a diagnosis of FXS)










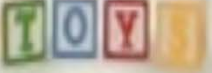













N = 69 AGE RANGE	DEMOGRAPHICS FOR FXS APP USAGE SURVEY 2 – 36																										
GENDER	MALE: 57 FEMALE: 12																										
Degree of affectedness:	Mild: 8 Moderate: 33 Severe: 22 Profound: 5																										
Additional diagnoses:	Autism: 28 Epilepsy: 5 Hyperactivity: 23 ADD: 11 OCD: 9 Anxiety Disorder: 6 Also listed: bipolar, hypotonia, apraxia, sensory processing disorder, disruptive behavior disorder, Expressive-receptive disorder.																										
Type of school or program:	<table border="0"> <tr> <td>General ed:</td> <td>6</td> </tr> <tr> <td>General ed w/ push-in or resource room:</td> <td>16</td> </tr> <tr> <td>Inclusive special ed:</td> <td>16</td> </tr> <tr> <td>Self-contained special ed:</td> <td>24</td> </tr> <tr> <td>Special ed at home:</td> <td>4</td> </tr> <tr> <td>Home-schooled:</td> <td>4</td> </tr> <tr> <td>Full-time paying job:</td> <td>1</td> </tr> <tr> <td>Part-time paying job:</td> <td>4</td> </tr> <tr> <td>Volunteer job:</td> <td>4</td> </tr> <tr> <td>Supported employment:</td> <td>5</td> </tr> <tr> <td>Adult program for special needs:</td> <td>6</td> </tr> <tr> <td>Is home and uses support services:</td> <td>4</td> </tr> <tr> <td>Is home and does not use ss:</td> <td>1</td> </tr> </table>	General ed:	6	General ed w/ push-in or resource room:	16	Inclusive special ed:	16	Self-contained special ed:	24	Special ed at home:	4	Home-schooled:	4	Full-time paying job:	1	Part-time paying job:	4	Volunteer job:	4	Supported employment:	5	Adult program for special needs:	6	Is home and uses support services:	4	Is home and does not use ss:	1
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Supported employment:	5																										
Adult program for special needs:	6																										
Is home and uses support services:	4																										
Is home and does not use ss:	1																										

Highest degree obtained by parent in household:	<table> <tr> <td>High School:</td> <td>8</td> </tr> <tr> <td>Associates:</td> <td>5</td> </tr> <tr> <td>BA:</td> <td>22</td> </tr> <tr> <td>Master's:</td> <td>25</td> </tr> <tr> <td>Doctorate/JD/MD:</td> <td>7</td> </tr> </table>	High School:	8	Associates:	5	BA:	22	Master's:	25	Doctorate/JD/MD:	7
High School:	8										
Associates:	5										
BA:	22										
Master's:	25										
Doctorate/JD/MD:	7										
Ethnicity:	<table> <tr> <td>Caucasian:</td> <td>62</td> </tr> <tr> <td>Latino/a:</td> <td>4</td> </tr> <tr> <td>Asian:</td> <td>4</td> </tr> <tr> <td>African-American:</td> <td>2</td> </tr> </table>	Caucasian:	62	Latino/a:	4	Asian:	4	African-American:	2		
Caucasian:	62										
Latino/a:	4										
Asian:	4										
African-American:	2										
Household Income:	<table> <tr> <td>Over 100K:</td> <td>25</td> </tr> <tr> <td>\$75 – 100K:</td> <td>12</td> </tr> <tr> <td>\$50 – 75K:</td> <td>15</td> </tr> <tr> <td>\$25 – 50K:</td> <td>5</td> </tr> <tr> <td>\$0 - \$25K:</td> <td>3</td> </tr> </table>	Over 100K:	25	\$75 – 100K:	12	\$50 – 75K:	15	\$25 – 50K:	5	\$0 - \$25K:	3
Over 100K:	25										
\$75 – 100K:	12										
\$50 – 75K:	15										
\$25 – 50K:	5										
\$0 - \$25K:	3										
Geography:	<p>23 STATES: NY: 13 NJ: 7 CA: 4 AL, MD, PA: 3 GA, MI, MO, MN, NC, OH, OR, VA: 2 CO, CT, FL, ID, IN, MA, SC, VT, WV: 1</p> <p>5 COUNTRIES: French Canada, Canada, France, India, Portugal Australia</p> <p>URBAN: 19 SUBURBAN: 40 RURAL: 10</p>										

Abilipad (text to speech)



One Voice

 Feelings & Emotions	 I want	 I need	 I don't want	 I will
 Places	 I feel	 I think	 to eat	 to play
 Home	 to go	 help	 potty	 please stop
 School				
 Food				
 Greetings				
 Opinions				
 Action Words				
 Colors				
 Shapes				
 More...				

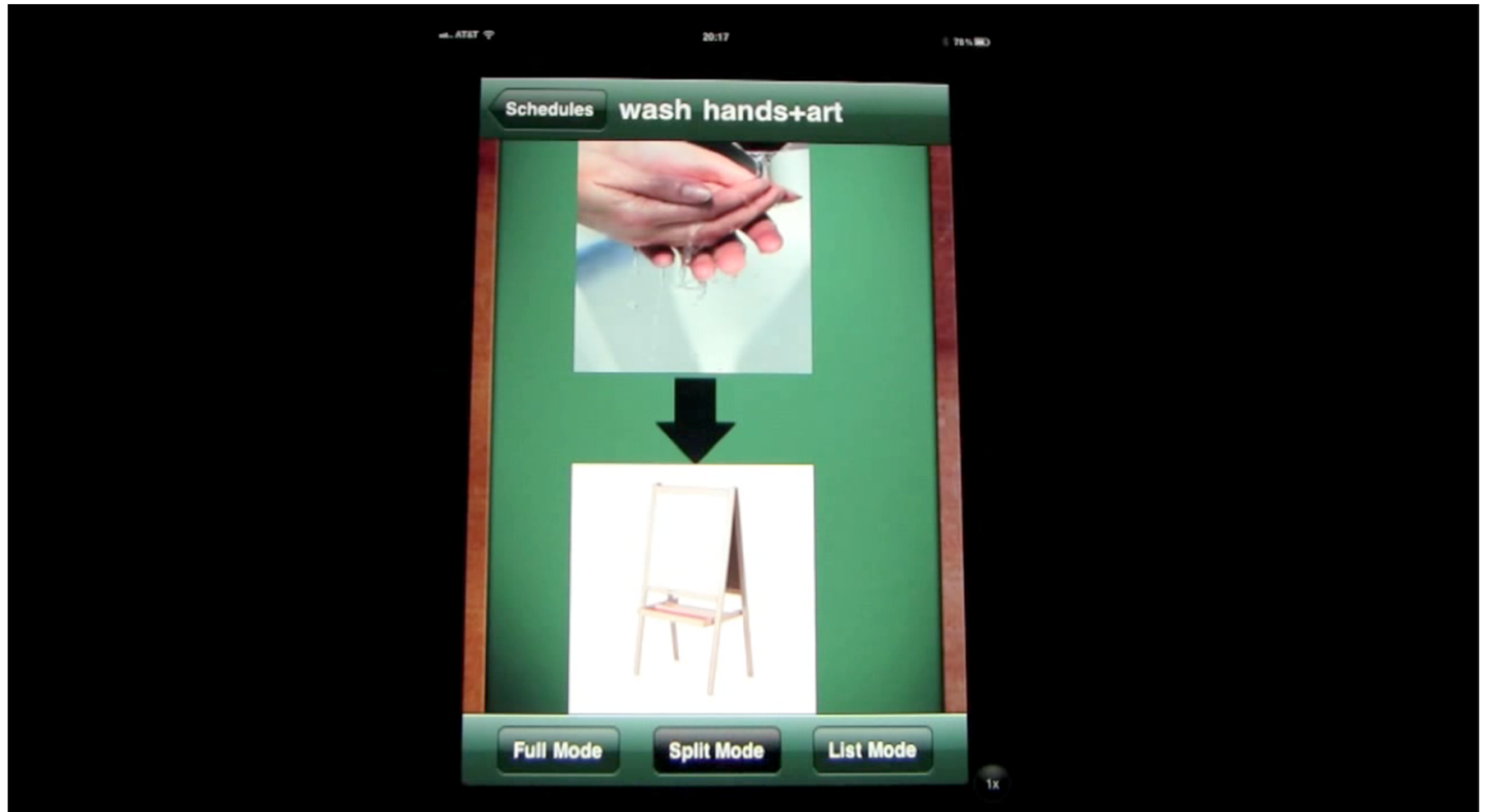
Tally tots (beginning math)



A Bee Sees a good beginner app



First...Then (visual schedule)



ASD Timer (visual timer)



Miscellaneous info from survey

- Frequency of use (of those who answered):
 - Several times a day: 16
 - Daily: 14
 - Several times a week: 3
 - Once or twice a week: 3