

Using Apps to Build Core Vocabulary
and
Create Meaningful Exchanges
for
Students with Autism Spectrum Disorder



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Financial Disclosure

- Apps for Autism Author
- VAST – Autism Developer
- VAST – Pre-Speech Developer
- InnerVoice AAC App Co-Creator

NonFinancial Disclosure

- Autism TodayTV Producer
- Speech in Action Author
- Autism Speaks Grant Recipient
- National Science Foundation Grant Recipient
- Animal Assisted Therapy Author
- iTherapy, LLC CEO



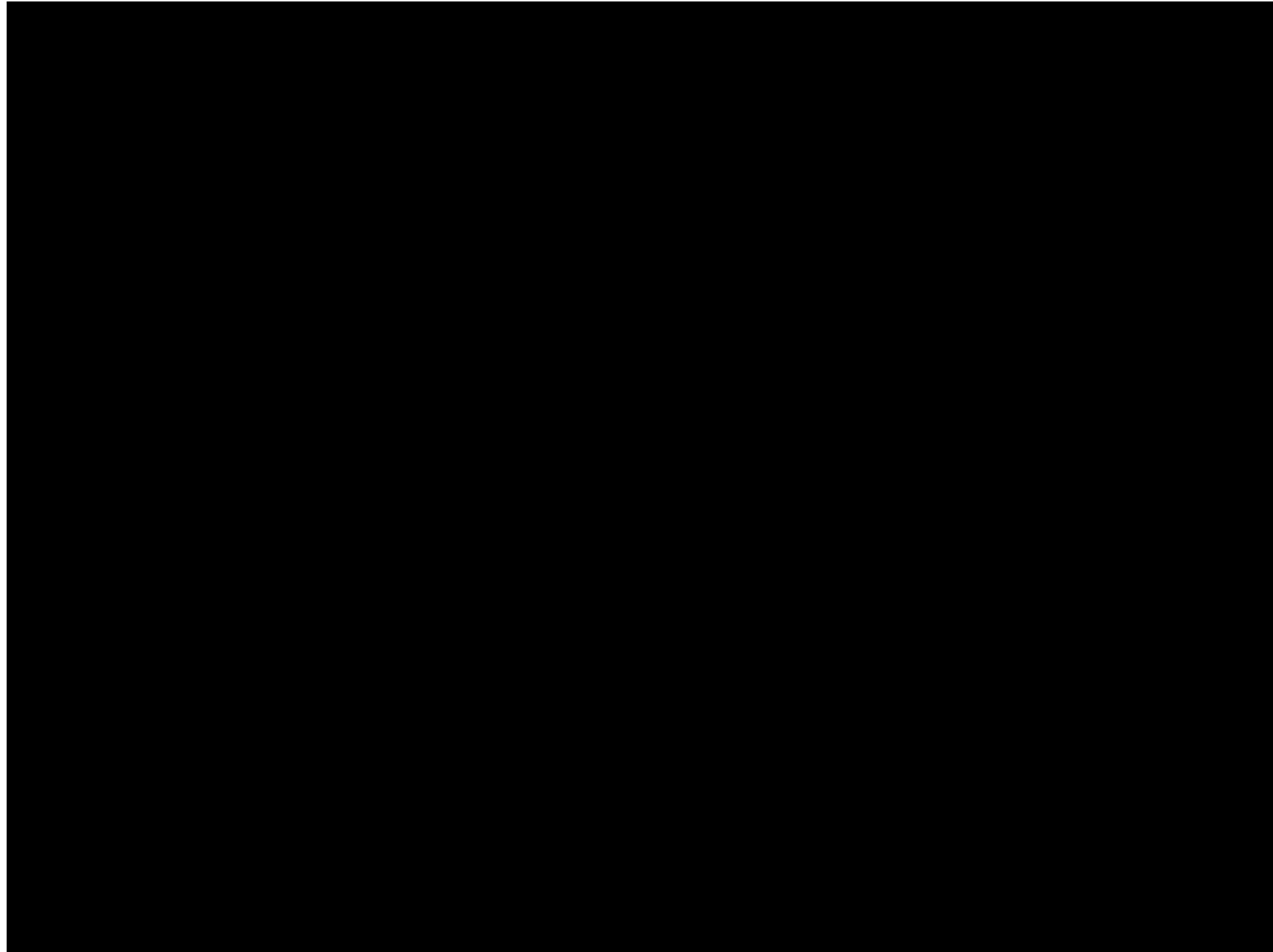
I LOVE THIS THING!

Motivation!



Beginning with the End in Mind

Teach Literacy



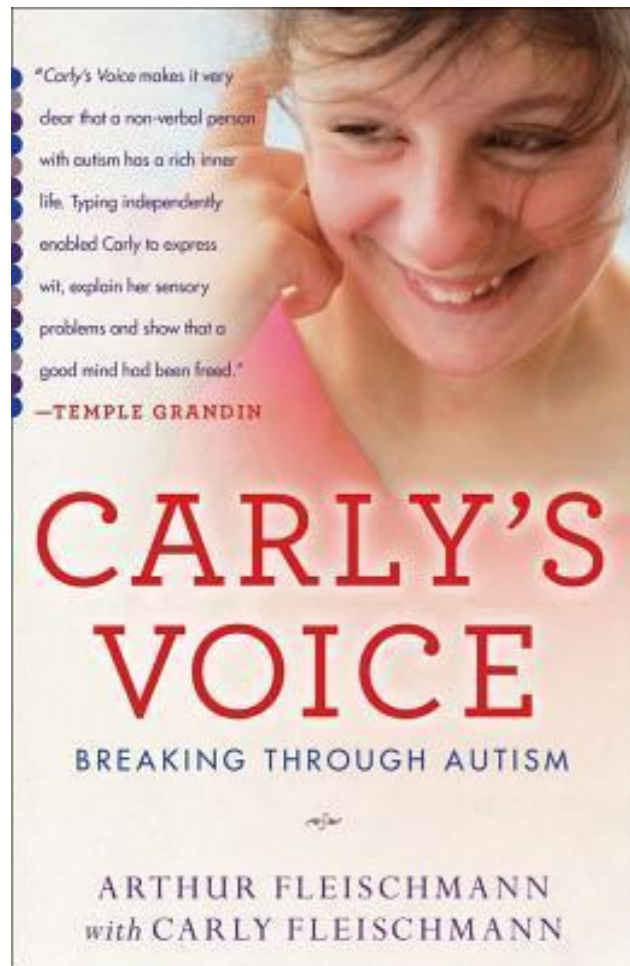
Carly Fleischmann ***Carly's Voice***

Facebook

<https://www.facebook.com/#!/carly.fleischmann?fref=ts>

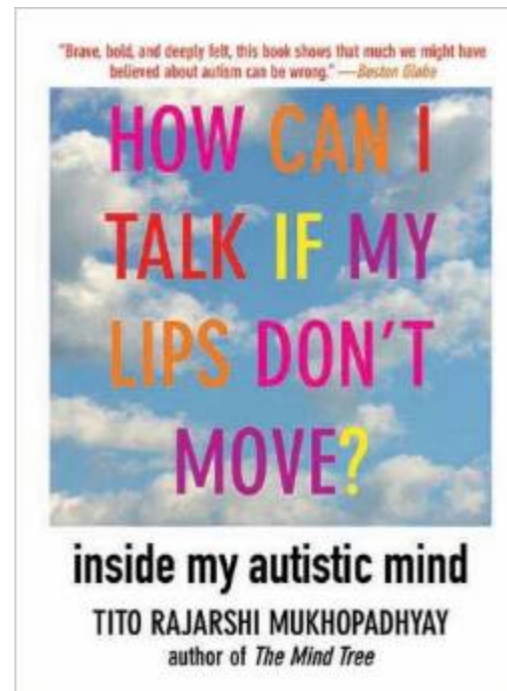
Twitter

<https://twitter.com/CarlysVoice>



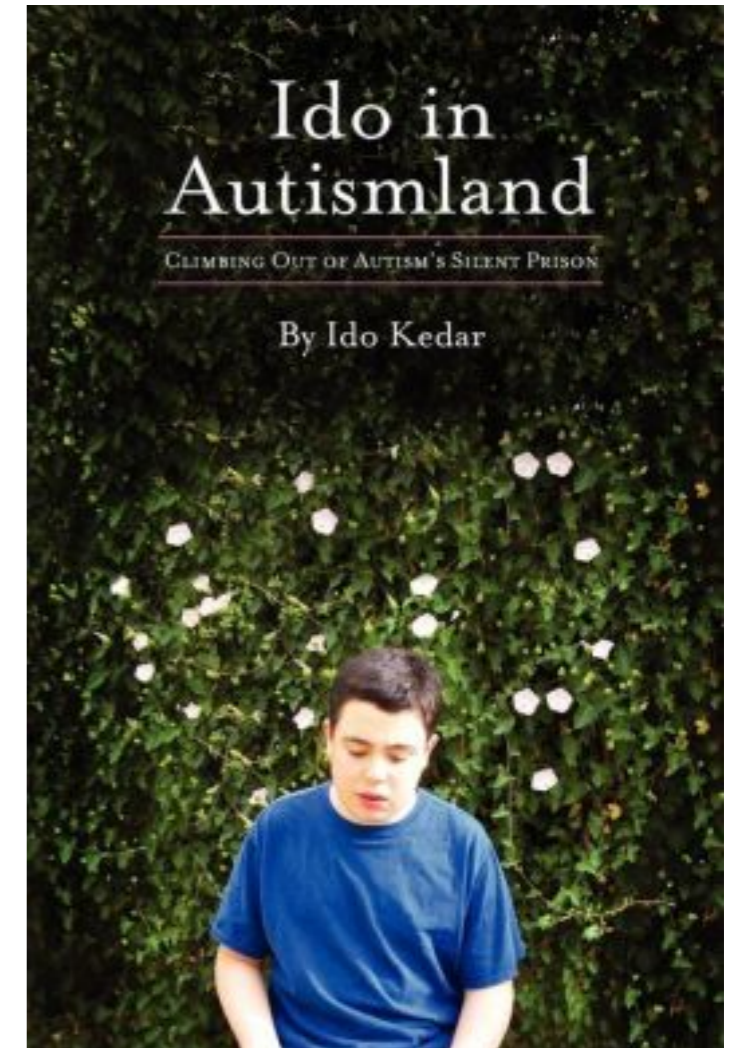
Tito Mukhopadhyay

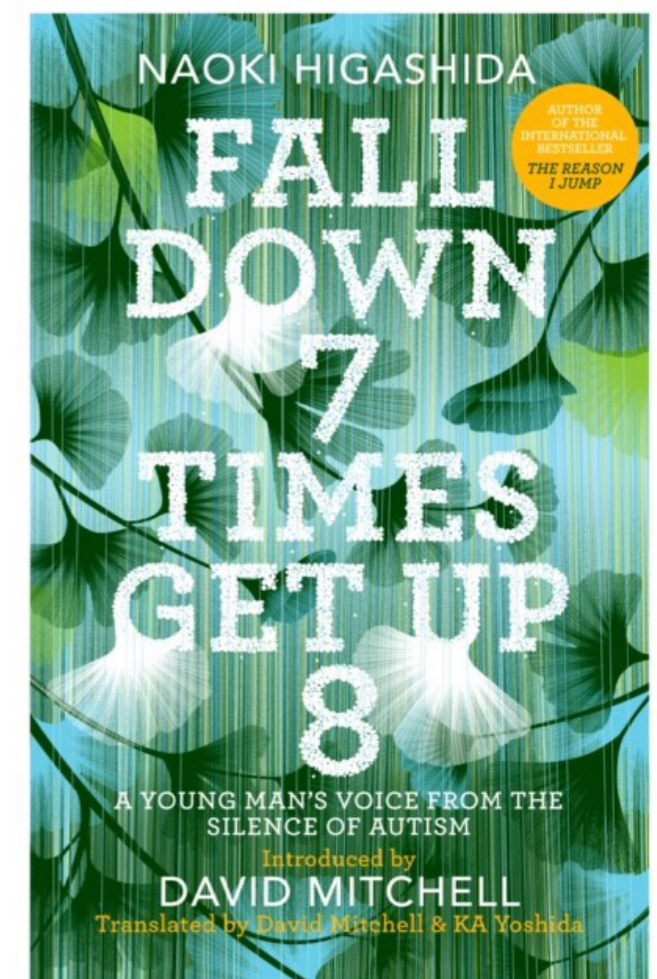
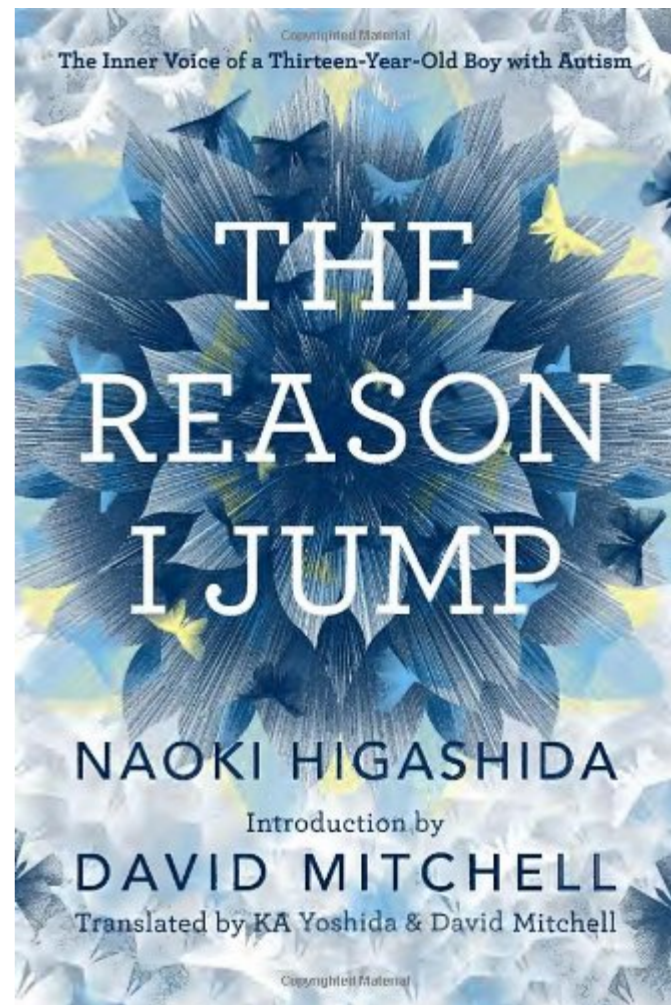
- How Can I Talk If My Lips Don't Move
- Mind Tree
- The Mind Tree
- The Gold the Sunbeams
- Beyond the Silence



Ido Kedar ***Ido in Autismland*** Blog -

<http://idoinautismland.blogspot.com/>





はい ○ 取消し X いいえ

Q W E R T Y U I O P

A S D F G H J K L

Z X C V B N M

?

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Communication - AAC

Core/Fringe Vocabulary

Language

Literacy



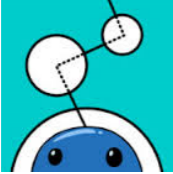





Accessories

Information & Support

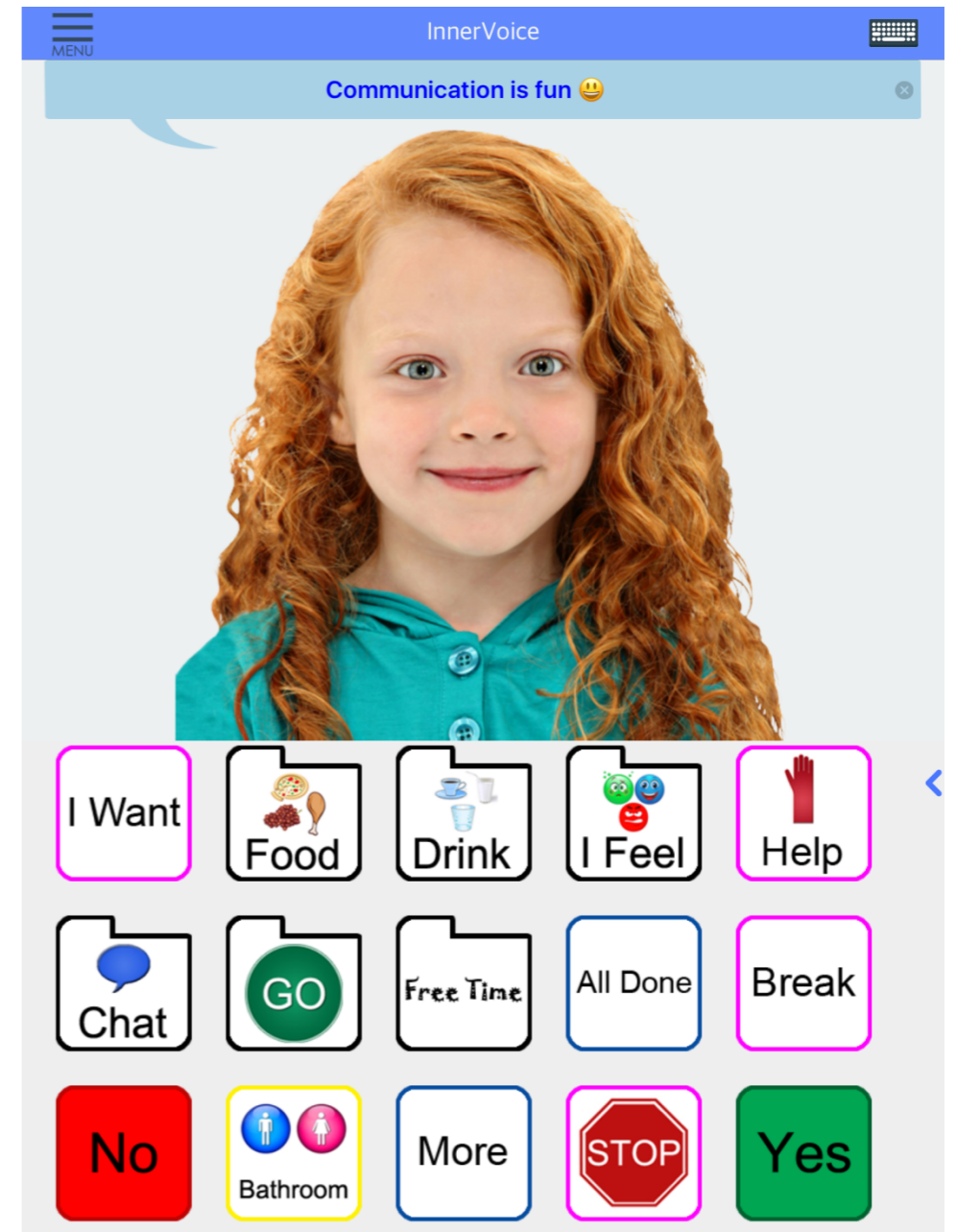
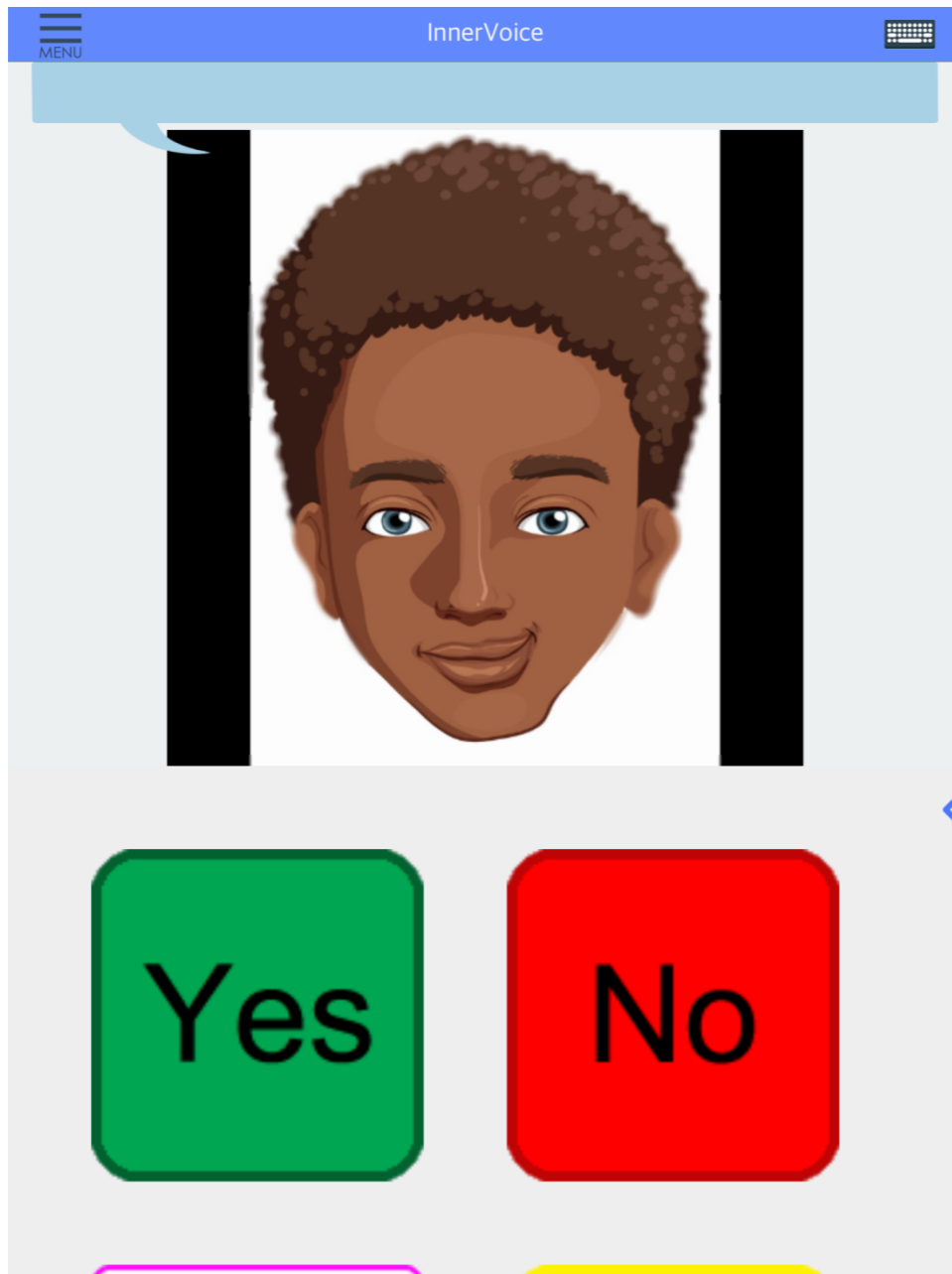
Communication



Expressive Language Apps (AAC) 17

-  InnerVoice -
-  Proloquo2Go –
-  aacorn AAC -
-  GoTalk Now
-  Sign 4 Me –
-  Wordtoob
-  Scene & Heard -  any Tap-

InnerVoice



Proloquo2Go

<http://www.assistiveware.com/support>



I love talking with Proloquo2Go

Home +

I	what	not	more
you	want	do	all done
it	go	Chat	Places
People	Things	Actions	More...

Clipboard, Keyboard, Pencil

Welcome to Proloquo2Go!

Clipboard Clear Insert Speak

This is great! It gives me a vo

voice voice and voice of

Q	W	E	R	T	Y	U	I	O	P
A	S	D	F	G	H	J	K	L	
↑	Z	X	C	V	B	N	M	←	×
123	globe	space	return						

Support Overview

Learn more...



[Product information](#)

[User videos](#)

[Manuals](#)

Join our community...



Join our FB User Groups:
[Welcome Center](#)

Follow us on Facebook:
[AssistiveWare page](#)
[Proloquo2Go page](#)
[Pictello page](#)

Follow us on Twitter:
[@assistiveware](#)
[@proloquo2go](#)

Train yourself...



[Tutorials](#)

[Support videos](#)

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Get help...



[Find a trainer](#)

[Find a resource center](#)

[Contact us for questions](#)

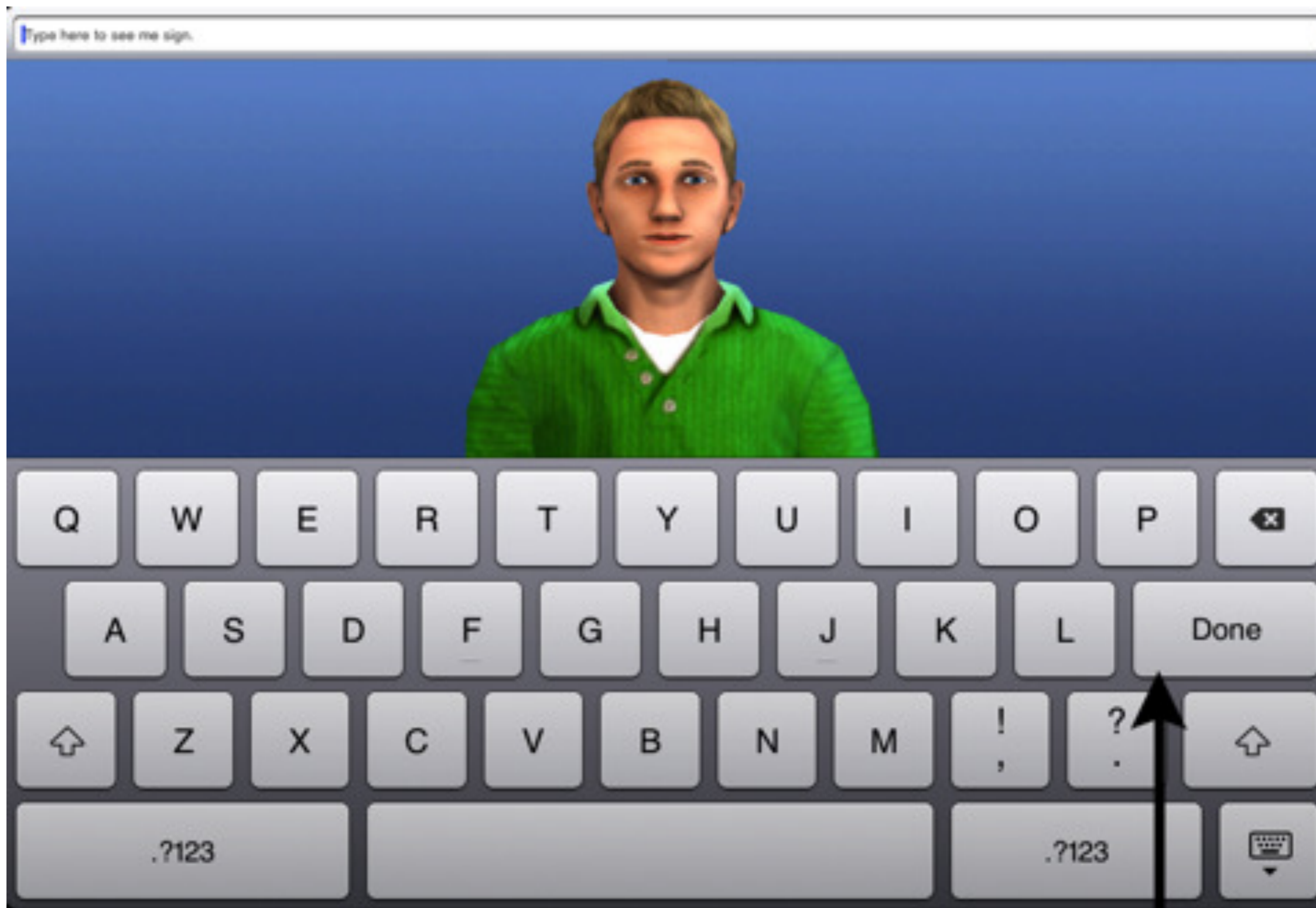
aacorn - High Tech AAC



GoTalk Now - GoTak Now FREE (tutorial)



Sign 4 Me - Signed English Translator (demo)



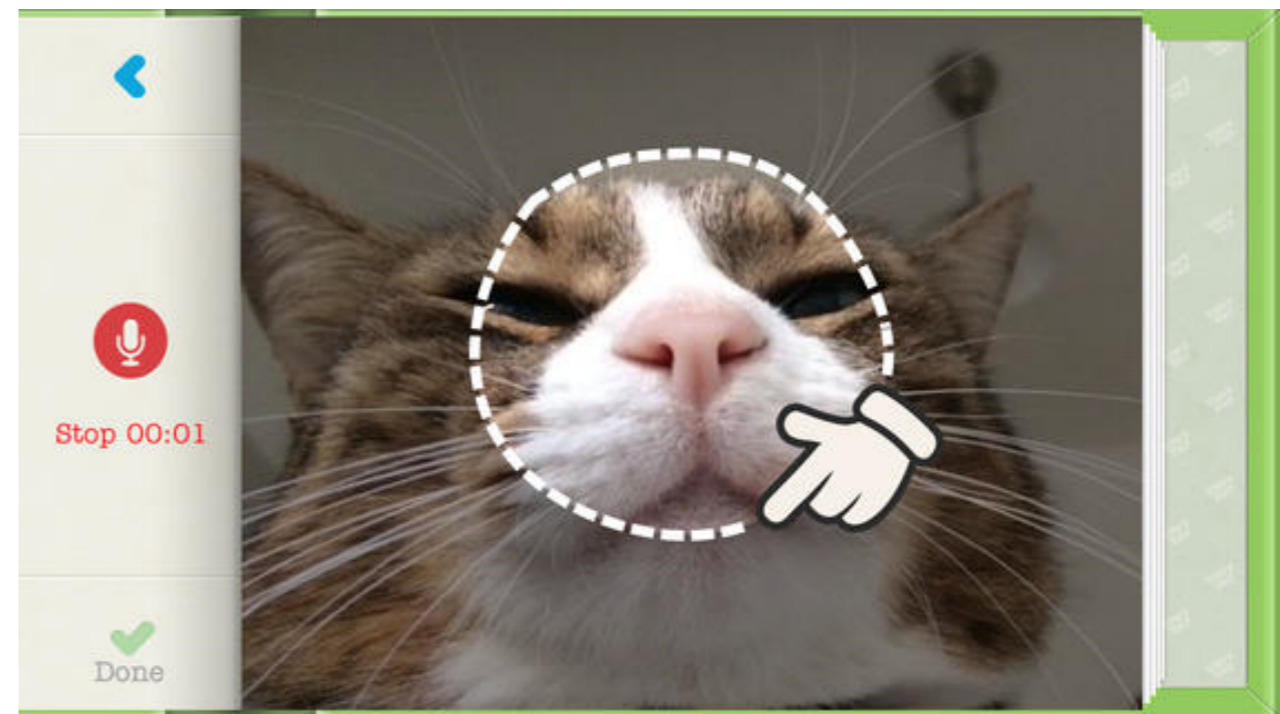
Communication & Language Wordtoob



Scene&Heard –





Powerful Scene Communication

Tiny Tap



Text-to-Speech & One Touch

18

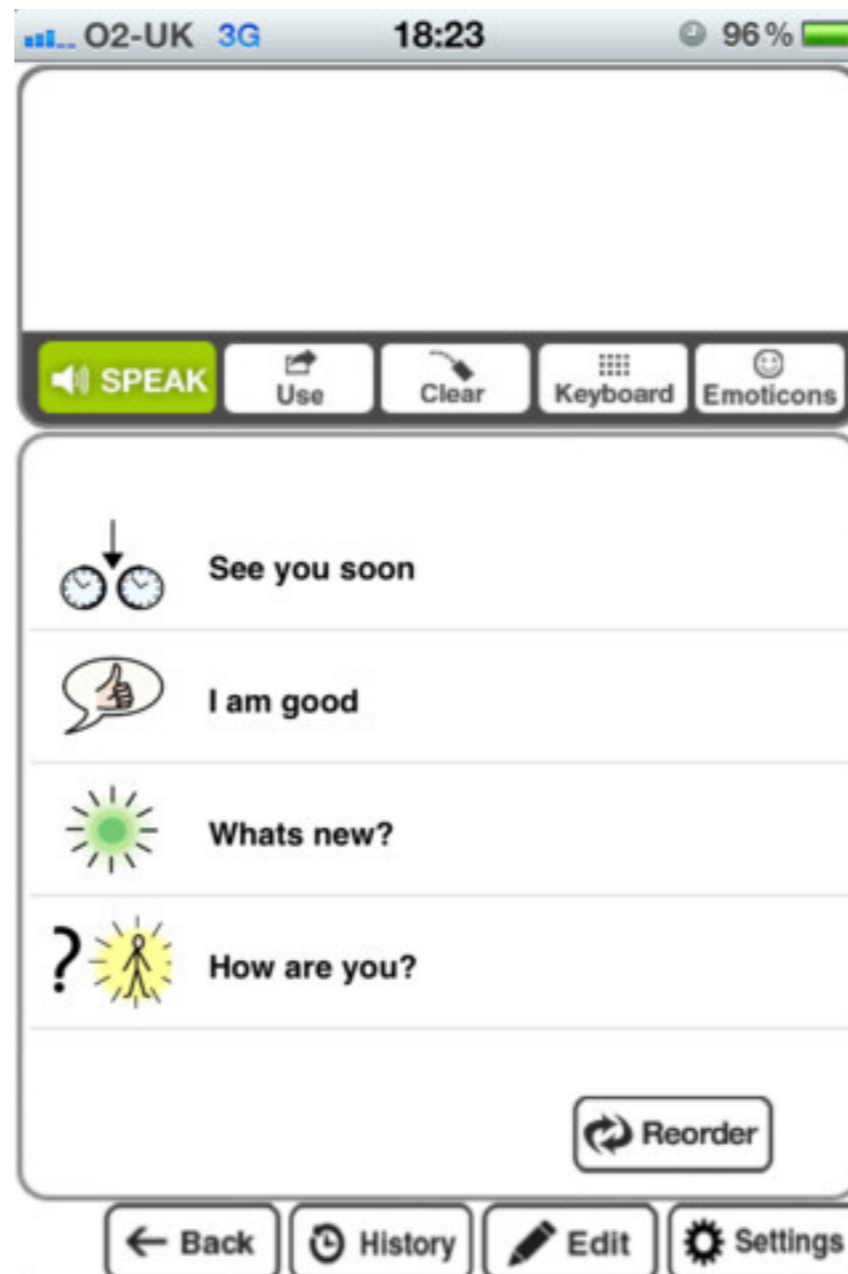
-  **Predictable –**
-  **Assistive Chat –**
-  **Click n' Talk* –**
-  **Character Talkers -**

Ricky's Story - Wax Paper

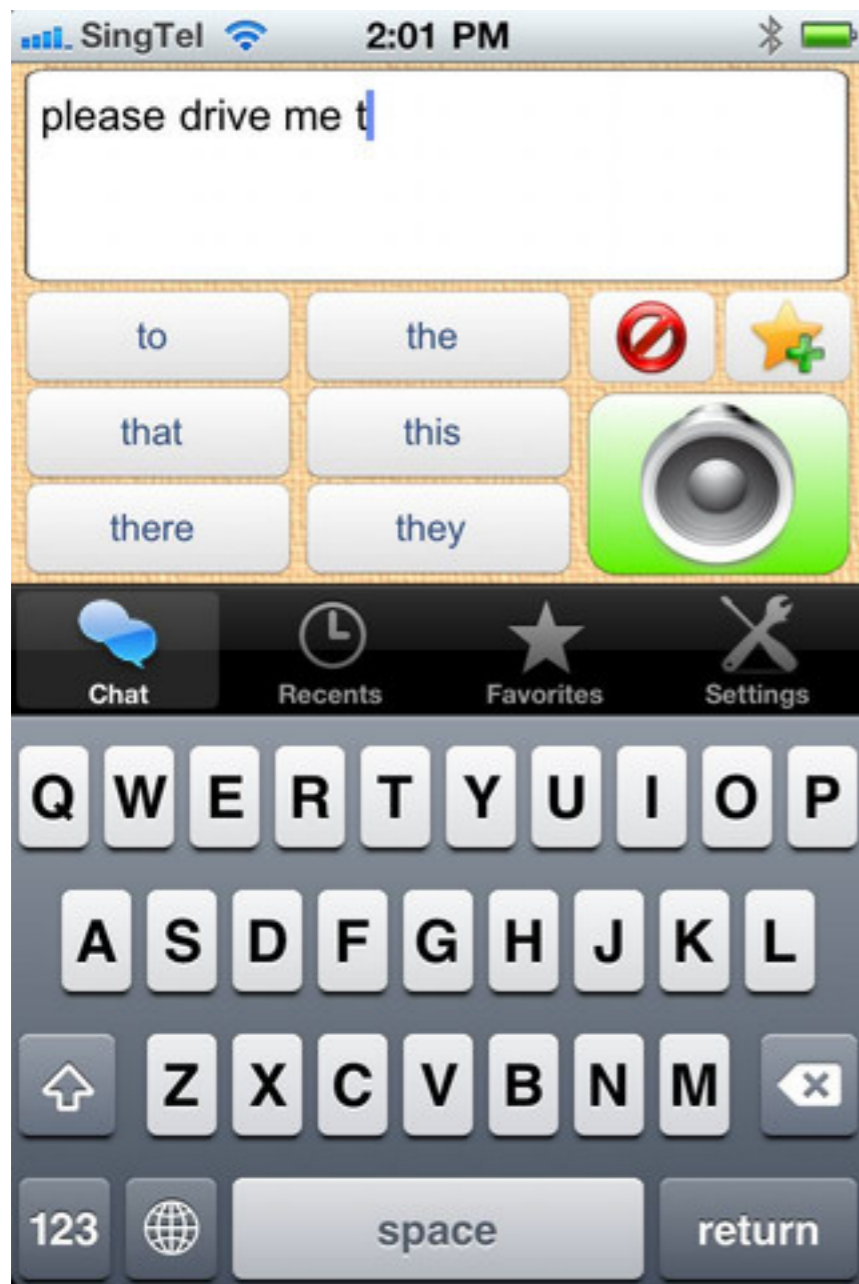


Predictable - High Tech Text to Speech App

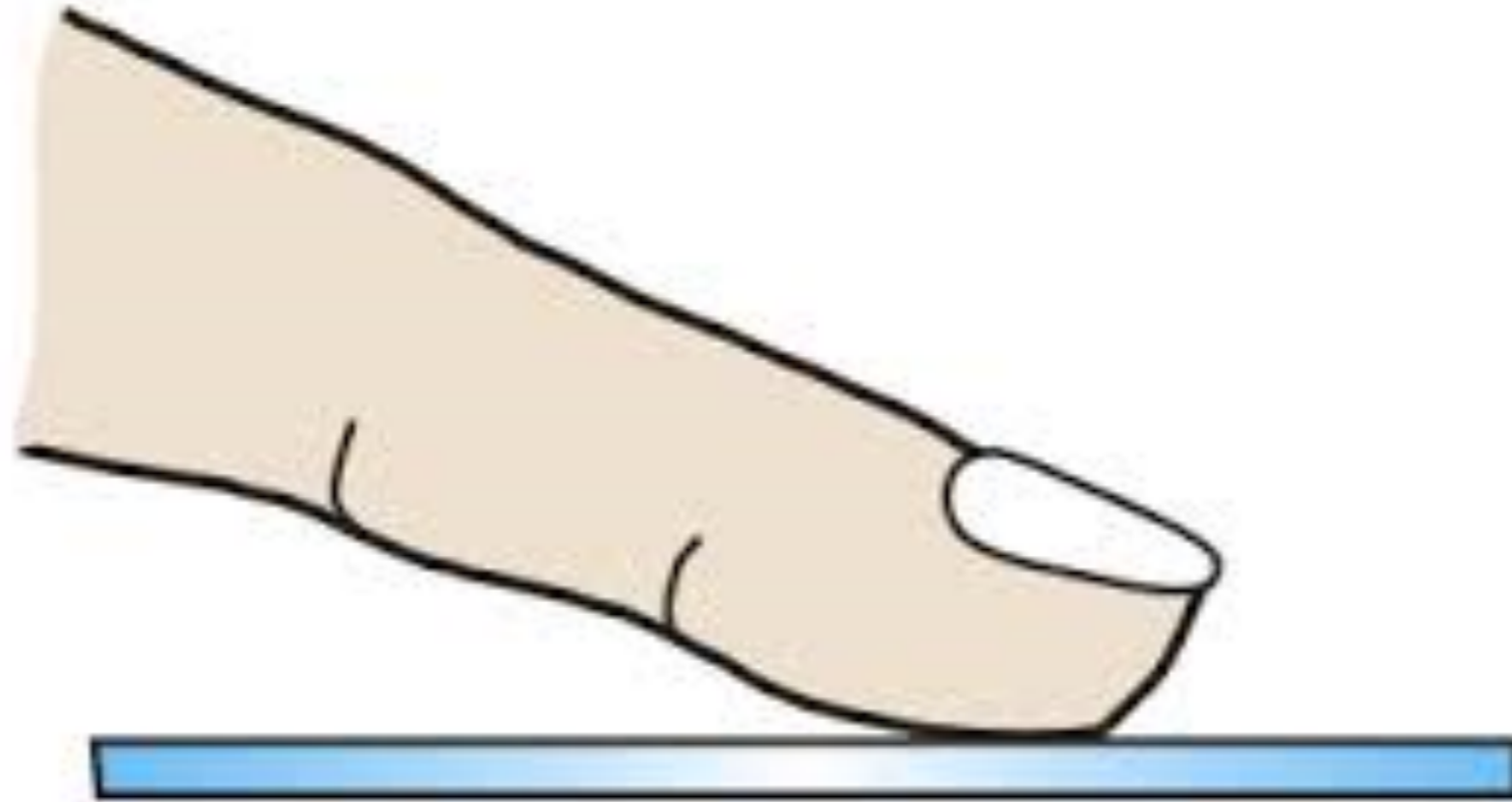
- Smart Word Prediction
- Create Category Folders
- Phrase Bank
- 9 Quality Voices
- Social Media
- Email
- Switch Access
- Handwriting
- Emoticons
- Add Your Photos



Assistive Express - Mid Tech Text-to-Speech



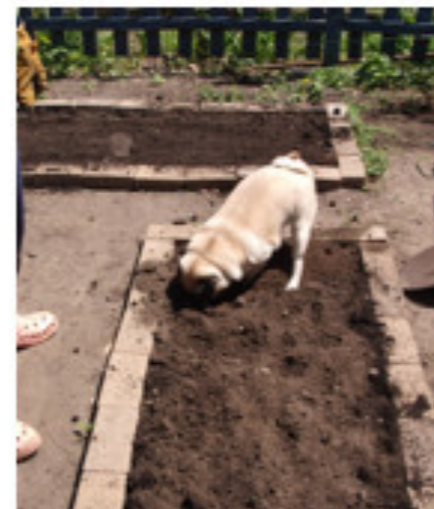
One Touch



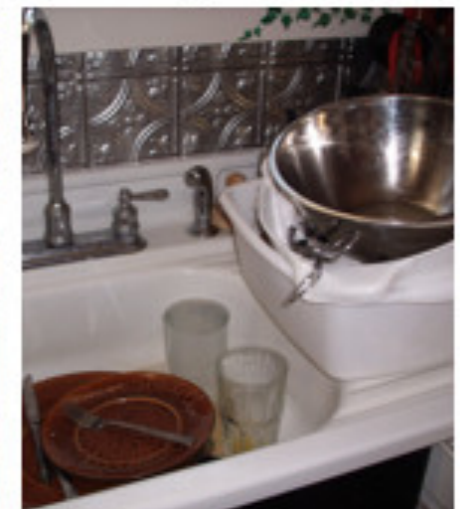
Click N' Talk - Talking Photo Album



Milo's Album



doing dishes



state fair



Character Talkers - Fun and super engaging - Devlin 18



Lenord & Ginger (live demo)



Talking with the Talkers

How Do I Choose the Right App??

- Checklist
- SETT Framework
- AAC Evaluation Genie (app)





The Communication App



Checklist



Did you know the abandonment rate for communication tech can be as high as 75%? Our checklist will help you make the right choice.

1-Simple and Intuitive: Parents and experts agree, if an app is too complicated it will be abandoned. Apps should be straightforward and easy to use.

2-Flexible and customizable for varying ages and abilities: Challenges expressing language affects adults as well as children. Your app should be able to support different proficiency levels, and grow with the user.

3-High quality text-to-speech voice: Listening to a poor quality text-to-speech voice can be difficult to understand. Look for an app that gives choices of voice and pitches.

4-Fun to use: Communication shouldn't be a chore! An app should engage the user in a fun way, creating desire to communicate more.

5-Smart Word Prediction: Keyboard use can be difficult if you have motor control challenges. Word prediction reduces the number of keystrokes needed for typing and allows frequently used words to be added to the dictionary.

6-Ability to Record Messages: Some individuals like the sound of a familiar voice. The ability to record gives the user creativity to add songs and sound effects to their app.












7-Multi-Purpose Keyboard: Using icons or pictures has some limitations when creating longer sentences. Select an app that allows you to move easily between icons and a regular keyboard.

8-Display words alongside picture icons: It's difficult to construct grammatically correct sentences using picture icons alone. Be sure your app can add words to images to support literacy.

9-Ability to Import personal images: For many AAC users, the ability to upload or take familiar pictures, drawings, and images is super important.

10-3D talking avatar: A communication device should not only speak for a person, but teach that same person how to speak for themselves. Video self-modelling via a 3D talking avatar is a cool way to achieve this.

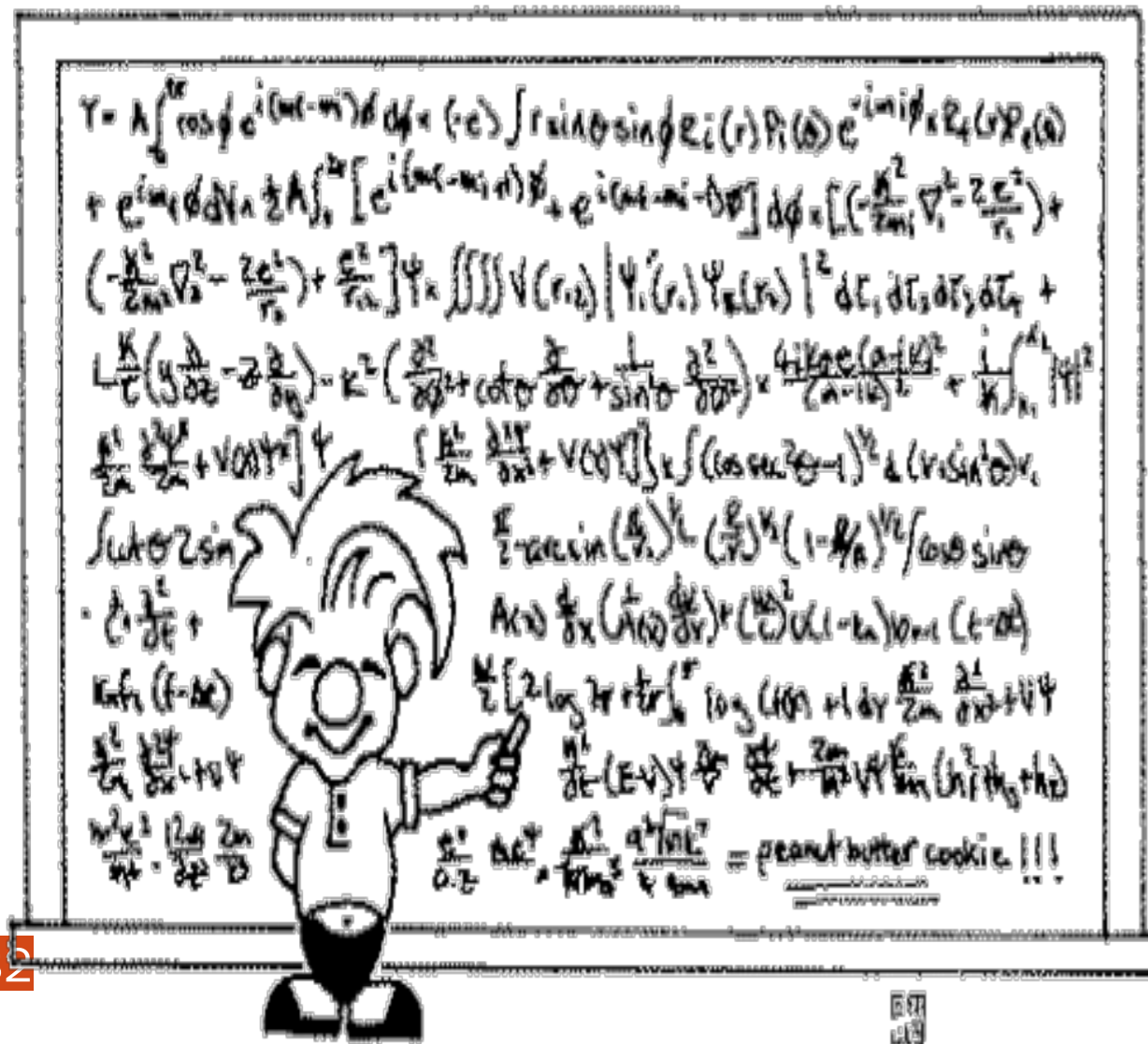
Quick - Feature Matching checklist

 iTherapy																														
		Data/tracking	Voice Output	Customization							Sensory	Self/Monitor	Share/email	Motor Skill	Prompt															
 Price	Allows Note Taking	Saves Your Profile	Multiple Profiles	Record Your own Voice	Prerecorded Human voice	Synthesized High Quality	Displays	Icon/Caricature Based	Real Image Based	In-app Picture Taking	In-app Web Search	Difficulty Level	Animations & Actions	Photo Personalization	Visual On/Off	Sound On/Off	Record Play/Back	Mirror Feature	Scoring	Student Work	Social Network	Data/Graphs	Drag	Pinch	Touch	Swipe	Visual Prompting	Remote Prompting	Auditory Prompting	
 Notes																														

Download at www.InnerVoiceApp.com

Tools

- What tools are needed for the student to accomplish a task?
- Can student, family and educators easily follow-through with the use of the tools?
- Are the tools motivating for the student to use?



AAC Evaluation Genie

Client Name Activity Selection   

Visual Identification **Visual Discrimination** **Noun Vocabulary** **Function Vocabulary** **Verb Vocabulary**

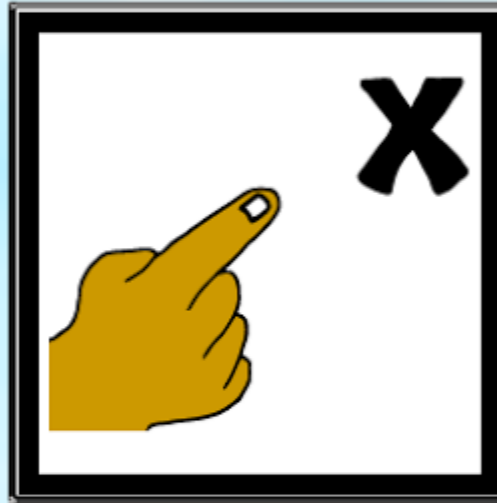
Category Recognition **Word Association** **Category Inclusion** **Category Exclusion**

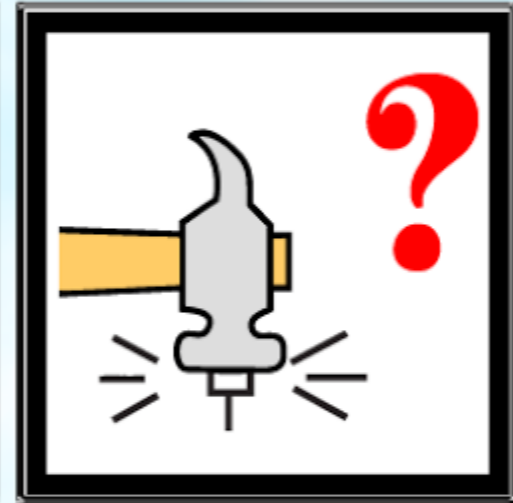
Pixon Core Vocabulary **Unity Core Vocabulary** **Unity Icon Patterns** **Picture Description** **Word Prediction**



Can



That



How


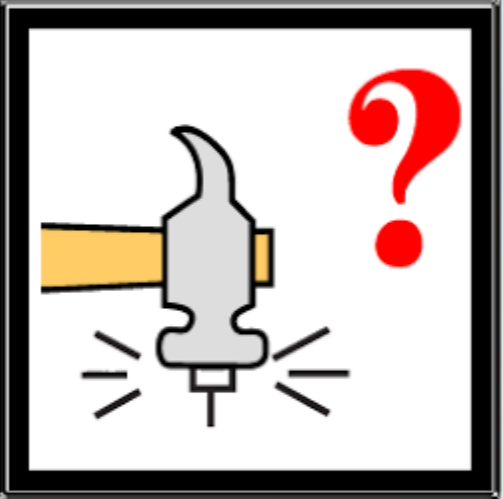


ABC

Home

Info

Search

Speaker



How

Catch

Where do I start?



From toddlers to seniors, core's simple words make up ~80% or more of everyday communication and are the heart of language development.

VOCABULARY LISTS: Top Words Used by Toddlers

- | | |
|----------------------|---------------------|
| 1. all done/finished | 12. <i>No</i> |
| 2. go | 13. off |
| 3. help | 14. on |
| 4. here | 15. out |
| 5. I | 16. some |
| 6. in | 17. that |
| 7. is | 18. <i>the</i> |
| 8. it | 19. want |
| 9. mine | 20. what |
| 10. more | 21. <i>yes/yeah</i> |
| 11. My | 22. you |

1. I	21. people	41. had	61. go	81. school
2. the	22. but	42. words	62. got	82. which
3. to	23. know	43. are	63. can	83. who
4. and	24. with	44. I'm	64. that	84. out
5. a	25. they	45. not	65. more	85. iPad
6. it	26. what	46. well	66. need	86. their
7. is	27. am	47. how	67. some	87. App
8. was	28. be	48. them	68. want	88. actually
9. that	29. don't	49. its	69. years	89. could
10. in	30. at	50. or	70. all	90. device
11. of	31. he	51. time	71. help	91. first
12. my	32. we	52. would	72. she	92. word
13. you	33. think	53. going	73. stop	93. been
14. yes	34. one	54. this	74. then	94. better
15. for	35. because	55. use	75. as	95. different
16. have	36. so	56. will	76. get	96. really
17. like	37. when	57. there	77. if	97. things
18. me	38. no	58. work	78. speech	98. two
19. do	39. just	59. say	79. most	99. did
20. on	40. about	60. from	80. now	100. however

REFERENCE: Hill, K. (2001). The development of a model for automated performance measurement and the establishment of performance indices for augmented communicators under two sampling conditions. *Dissertation Abstracts International*, 62(05), 2293. (UMI No.3013368).

Fringe Vocabulary 20 – 25%

Fringe vocabulary refers to vocabulary that is more specific to a topic, environment, or individual.

In my experience -- [Fringe Vocabulary](#) is usually the reason your child will communicate. Both likes and dislikes

- Lego
- Pizza
- Special interests
- Cars / Trains
- Horses
- Taco
- Chocolate
- Sport
- Names of family, friends, pets
- Wet tissue
- Bean sprout
- Sock
- Pencil
- Spider

Strategies

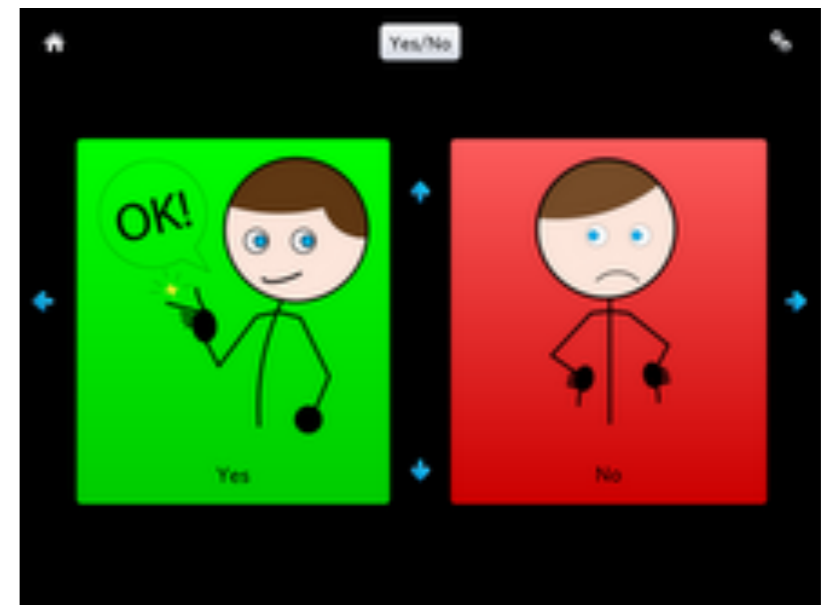
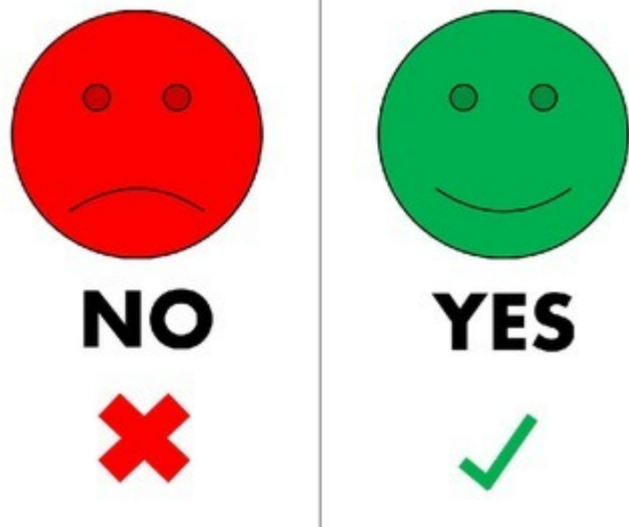
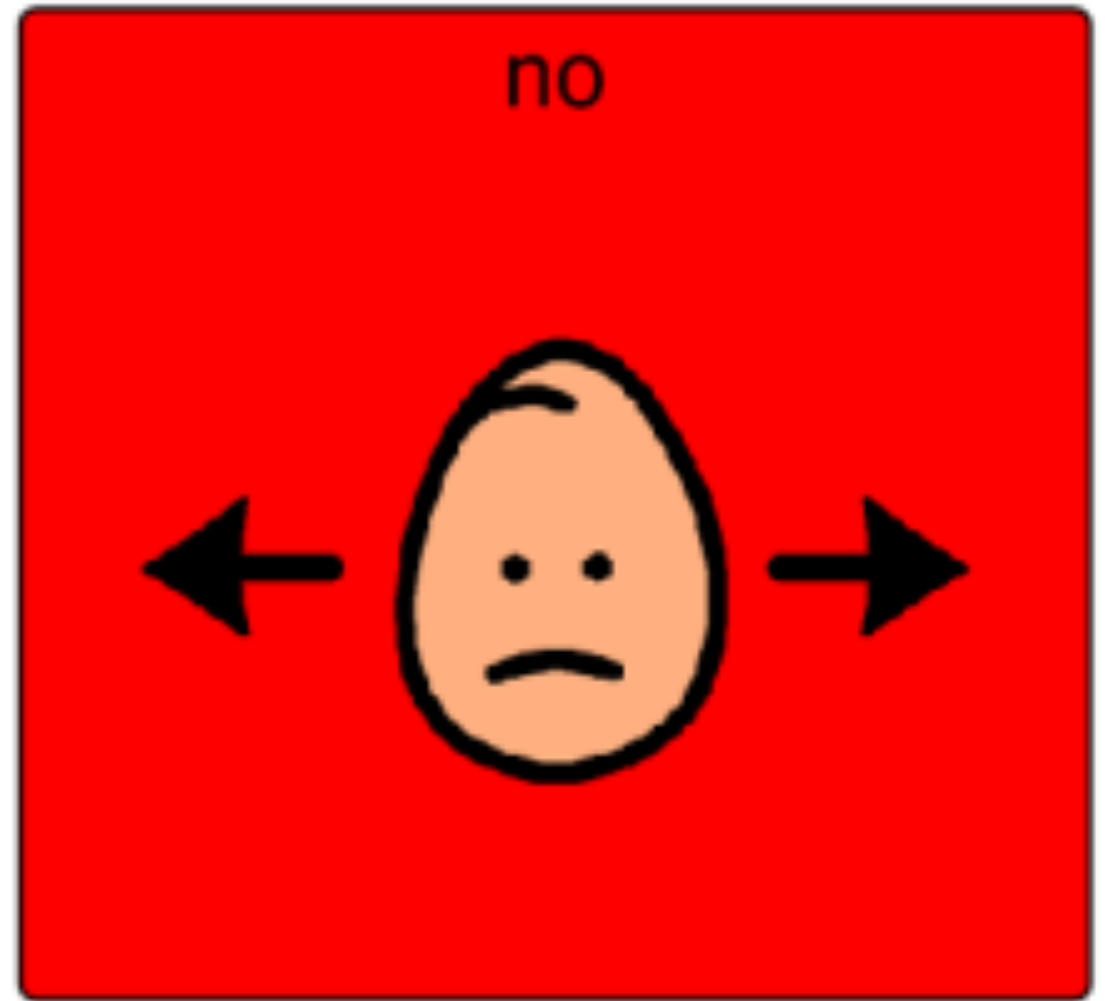
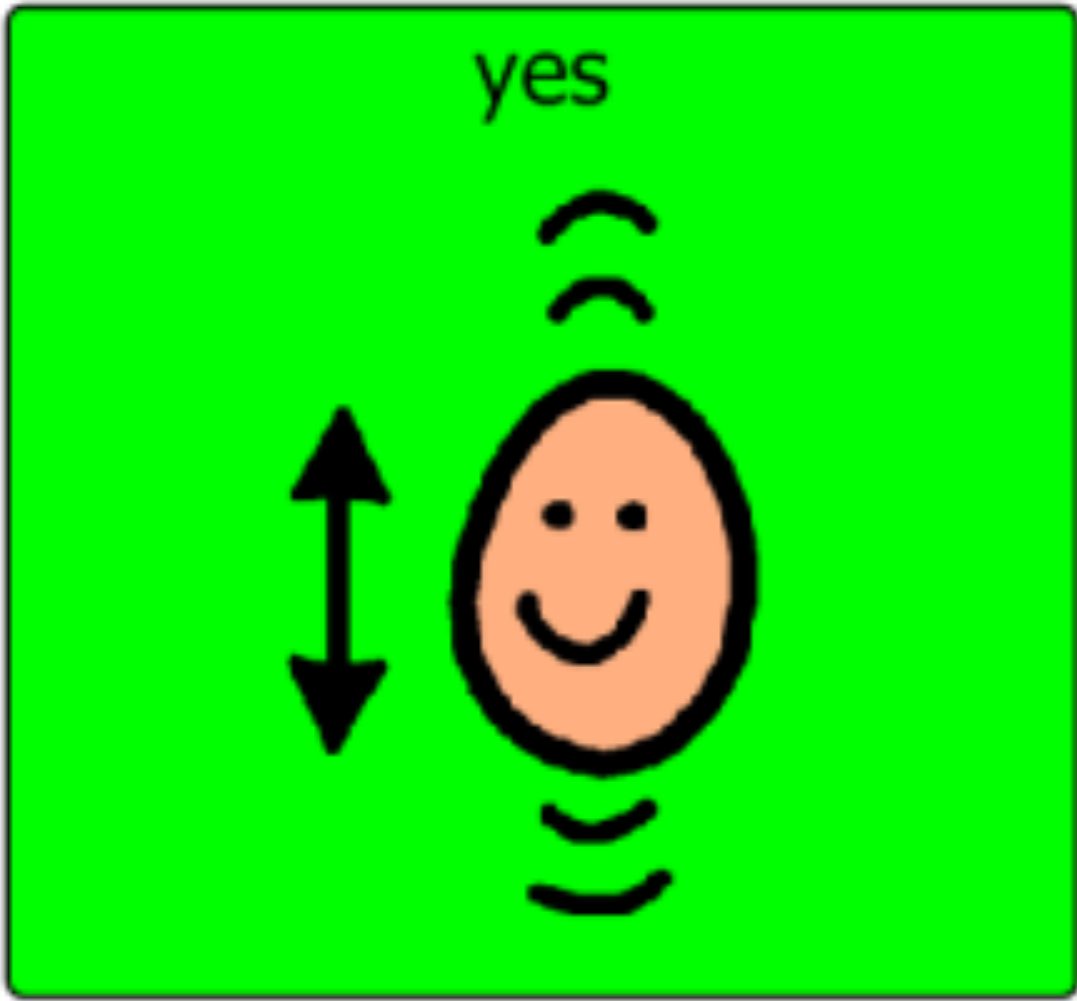
- Teach in Context
- Model, Model, Model
- Build Routines
- Anticipate Wants and Needs
- Aided Language Input
- Peer Modeling



Teach in Context

Labeling ≠ Communication





YES

NO

You / Me



Model Model Model

Aided Language Stimulation (ALS)

When you engage in ALS, you are modeling:

- The use of symbols to say real things in real situations
- What to say when
- Grammar
- How to use the device
- Mistakes and repair strategies

(Sennott et al., 2010)

Anticipate Wants and Needs

- I need a break
- I need to use the restroom
- Help (sabotage) Guided Access Example
- I want to take a walk
- I want a drink of water

Peer Modeling



Predictable Sentences

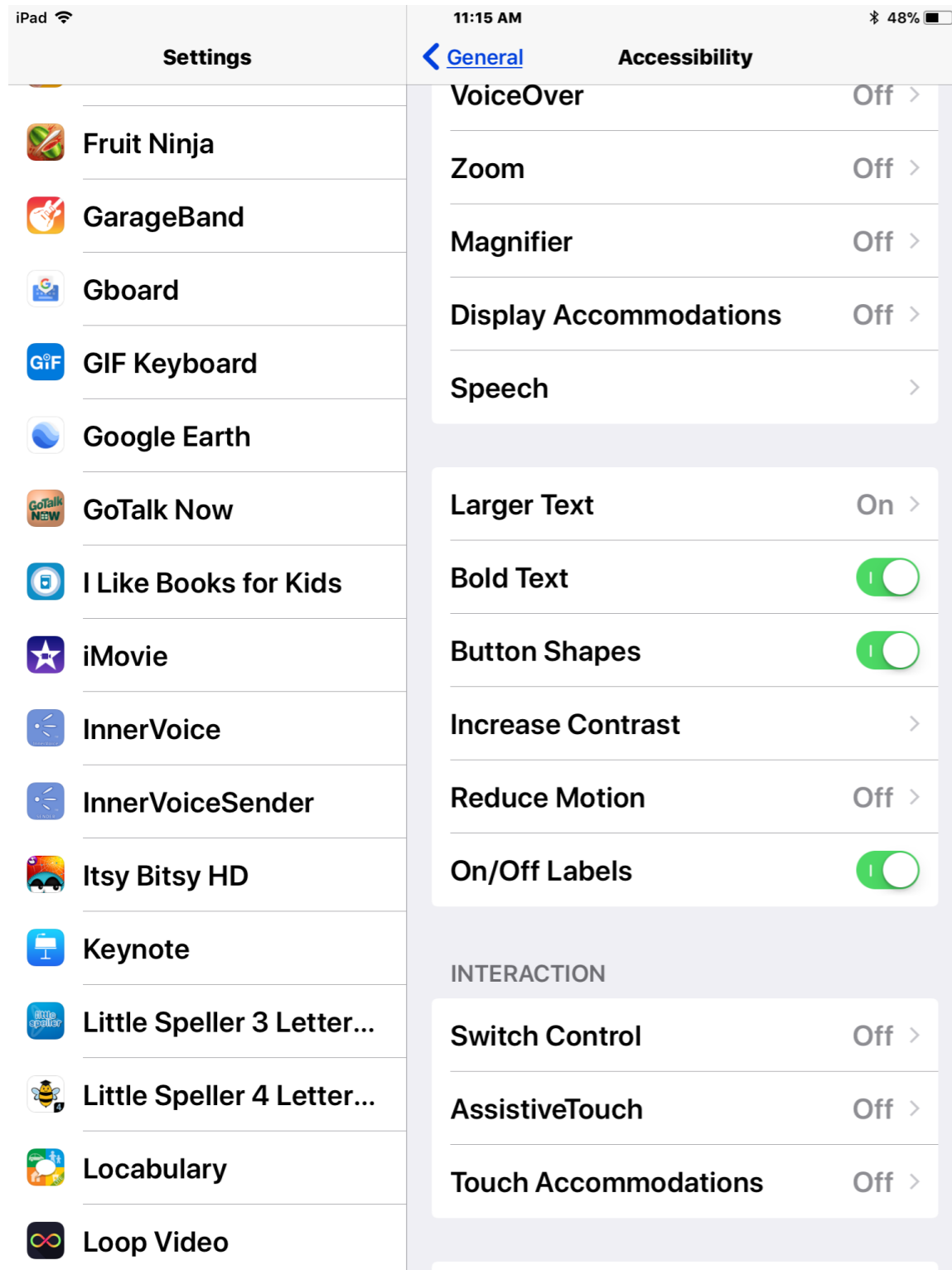
The weather can be sunny. Isaiah
The weather can be hot. Sara
The weather can be cold. Amelia
The weather can be snowy. James
The weather can be cloudy. MaryMing
The weather can be windy. Brianna
The weather can be foggy. Jackson
The weather can be rainy. Justice
The weather can be sunny and cloudy.
Eva
The weather can be sunny and cold.
Staley
The weather can be freezing. Kaleb

Things We Like During Choice Time

I like the computer. (K.E.)
I like the iPad. (L.G.)
I like the big ball. (M.H.)
I like the music. (D.D.)
I like the cards. (E.C.)

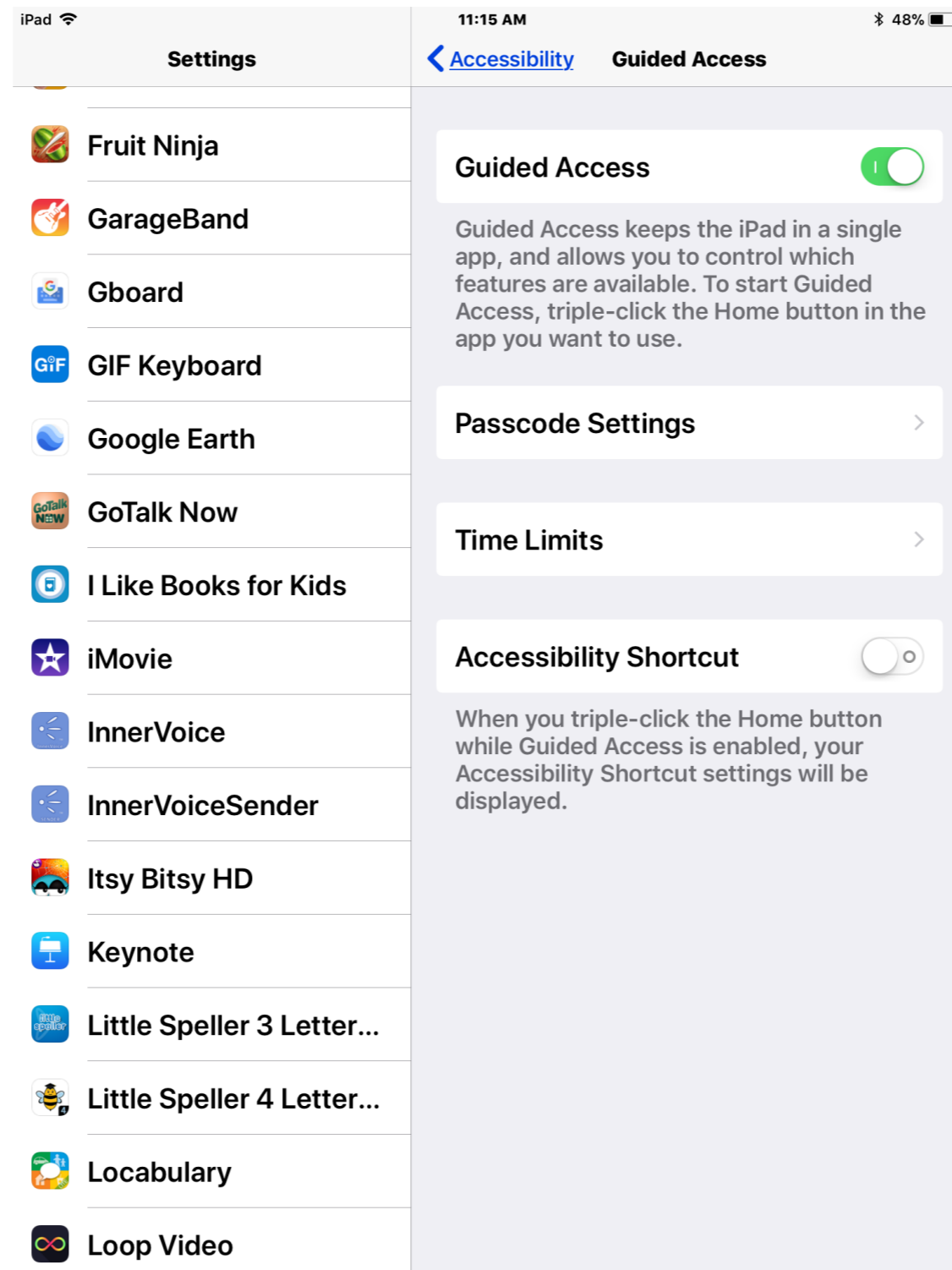
I play with
I play with
I play with
I play with
I play with
I play with
I play with
I play with
I play with
I play with

Accessibility Features



- *Speak Selection*
- *Bold Text*
- *Subtitles & Captioning*
- *Guided Access*

Guided Access (demo)



Guided Access Mode for iOS

Guided Access Mode is used to help you to stay focused on one task while using your iPhone, iPad or iPod touch. This feature limits your device to a single application and lets you control which application features are available to the user.

Guided Access can be used to

- Restrict your iOS device to a single application
- Disable areas of the screen that are not relevant to a task
- Disable hardware buttons

Set up Guided Access

Tap Settings > General > Accessibility > Guided Access to set up Guided Access. From there, here's what you can do:

- Turn Guided Access on or off
- Set a passcode that controls the use of Guided Access and prevents someone from leaving an active session
- Set whether the device can go to sleep during a session

Start a Guided Access session

To start a Guided Access session, follow these steps:

1. Open the app you want to use.
2. Triple-click the Home button.
3. Adjust settings for the session, and then tap Start.

Restricted Profile for Android

You can set up a “restricted” profile on your Android phone or tablet that you can switch on and off in moments.

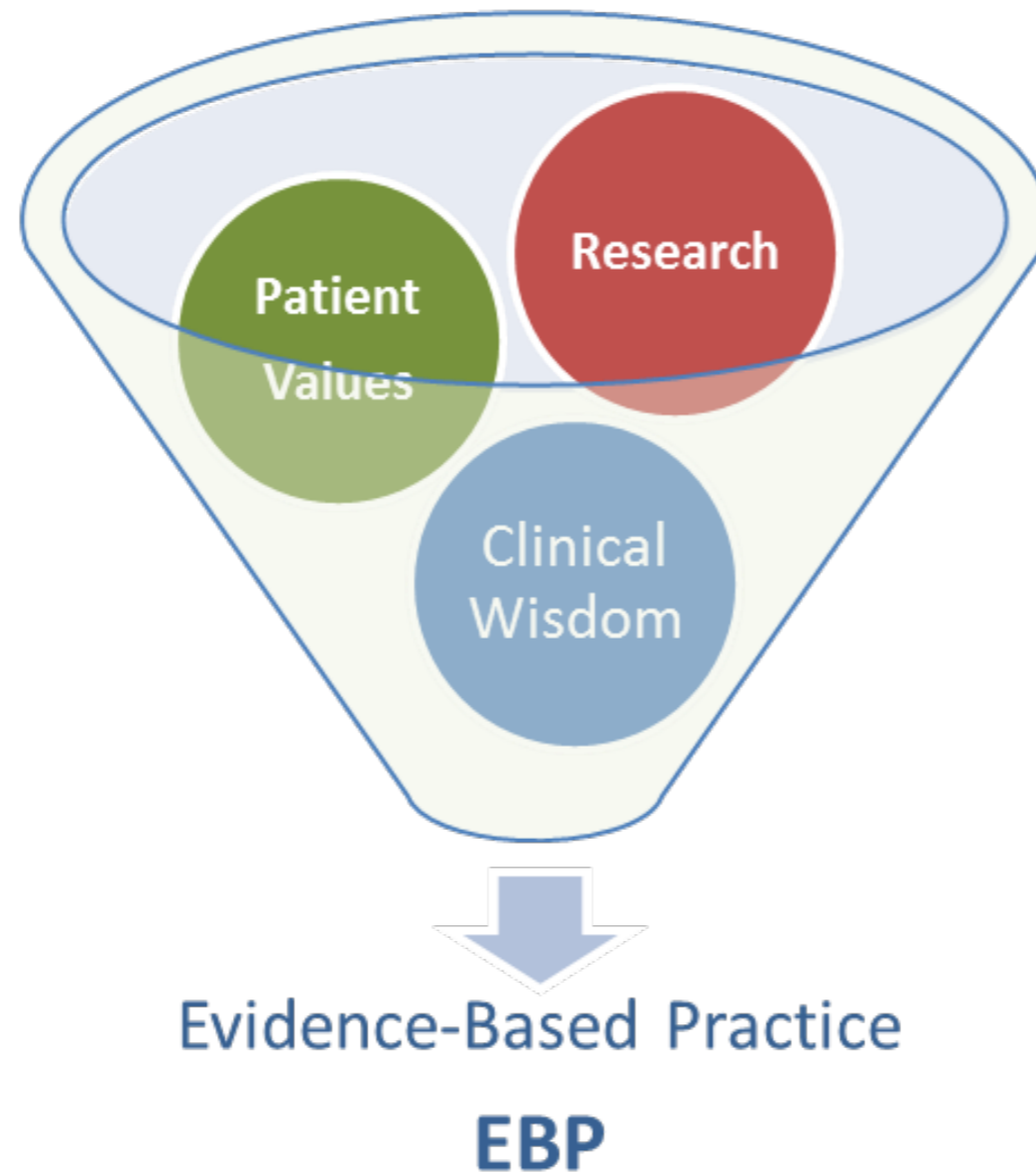
Lollipop-enabled Android phones and tablets (running on KitKat or better) include a so-called “restricted” profile that lets you lock down access to only the apps you choose, and you can set parental restrictions for videos, music, and books.

Here’s how to set it up...

- Tap Settings > Users > Add user or profile, then tap Restricted profile.
- Next, you’ll see a setup screen with the name “New profile” at the top. Tap New profile to change the name to, say, the name of your child.
- Below the profile name, you’ll see a list of every app installed on your device—including Chrome, Google search, the Camera app, and others that you might not want your child touching. They’re all switched off by default. Certain apps, like Google+ and Google Hangouts, can’t be turned on at all; for the others (like, say, PBS Kids), you can unblock access by flipping the switches next to their icons. You’ll also find a few apps with gear-shaped Settings buttons; tap to configure additional “restricted” settings, such as content ratings for movies and TV shows.

"Evidence-based Practice is the integration of best research evidence with clinical expertise and patient values."

(Sackett D et al. Evidence-Based Medicine: How to Practice and Teach EBM, 2nd edition. Churchill Livingstone, Edinburgh, 2000, p.1)



According to The National Professional Development Center (NPDC) many interventions for autism exist, only some have been shown to be effective through scientific research. Interventions that researchers have shown to be effective are called evidence-based practices. (handout)

Evidence Based Practice	Examples of Supporting App
<p>Technology-Aided Instruction and Intervention (TAII) - Instruction or interventions in which technology is the central feature supporting the acquisition of a goal for the learner.</p>	<p>Martha's Dog Party First Phrases Bitsboard Crack the Books Language Builder</p> 
<p>Functional Communication Training - A systematic practice to replace inappropriate behavior or subtle communicative acts with more appropriate and effective communicative behaviors or skills.</p>	<p>InnerVoice VAST Autism - Core Proloquo2Go</p> 
<p>Speech Generating Device - Electronic devices that are portable in nature and can produce either synthetic or digital speech for the user. SGD may be used with graphic symbols, as well as with alphabet keys.</p>	<p>InnerVoice aacorn AAC Touch Chat with Word Power Proloquo2Go</p> 
<p>Video Modeling/Modeling - A mode of teaching that uses video recording and display equipment to provide a visual model of the targeted behavior or skill.</p>	<p>Video Scheduling iMovie VAST Autism & Pre Speech (video modeling for speech) Video feature on the iPad</p> 
<p>Visual Supports - Any tool presented visually that supports an individual as he or she moves through the day.</p>	<p>I Get It..... iCommunicate First Then Visual Schedule ASD Tools</p> 

Language



Actions in Video



First Phrases



Fun with Verbs and Sentences



WordToob



Giphy

Verbs & Concepts

Caution!!



Colorbox

Actions in Video

\$33.99



The girl is running.



First Phrases

\$15.99

Available on the
App Store



Need Help ?



drive

the



car



Record

Start

Touch "Start" to record. Begin speaking when it turns red. Touch "Stop" to end recording.






Teaching Emotions-

Caution!

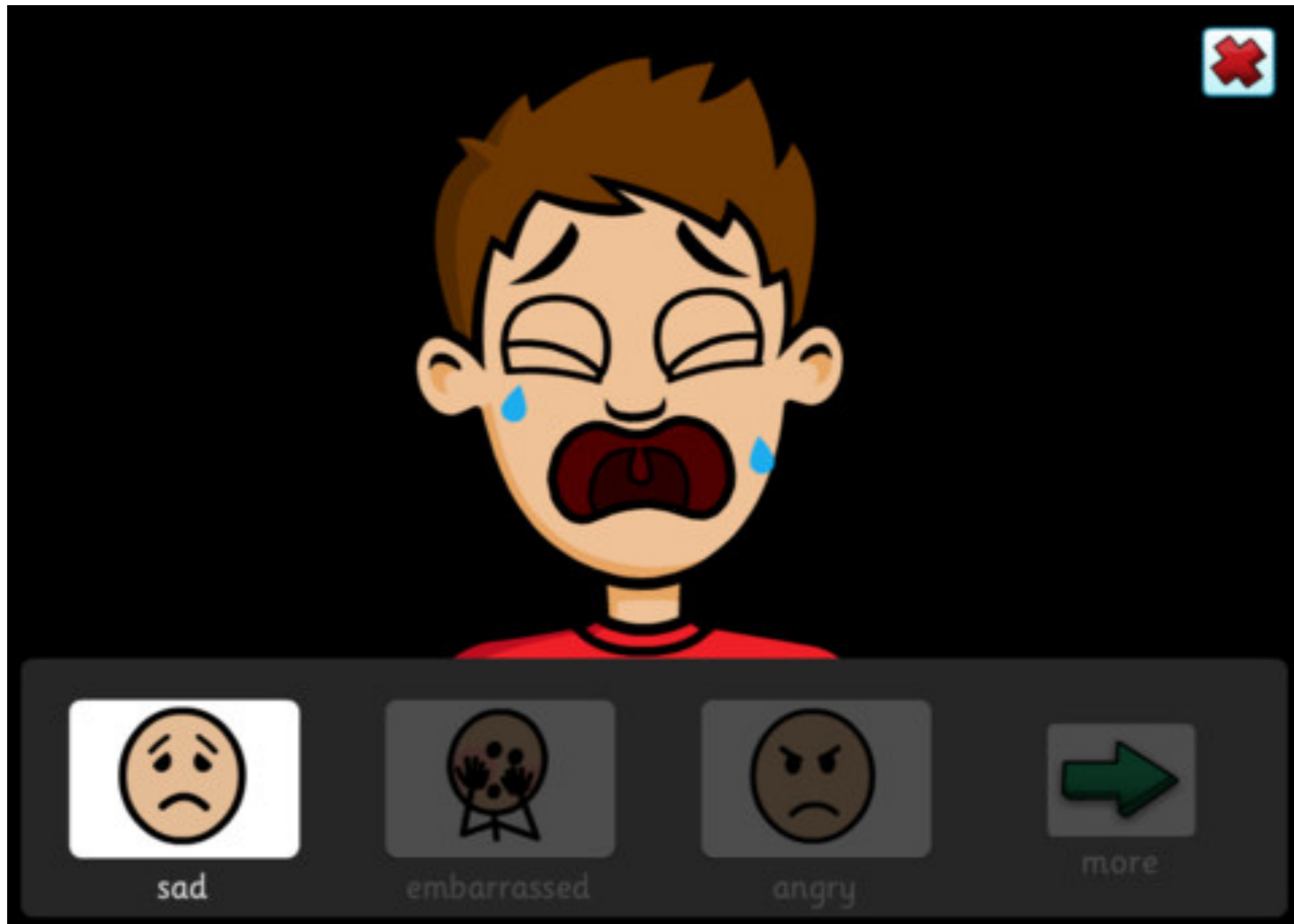


Emotions and Moods

-  **Smarty Pants –**
-  **InnerVoice Language-Learning**
-  **Giphy**

Inclusive Smarty Pants

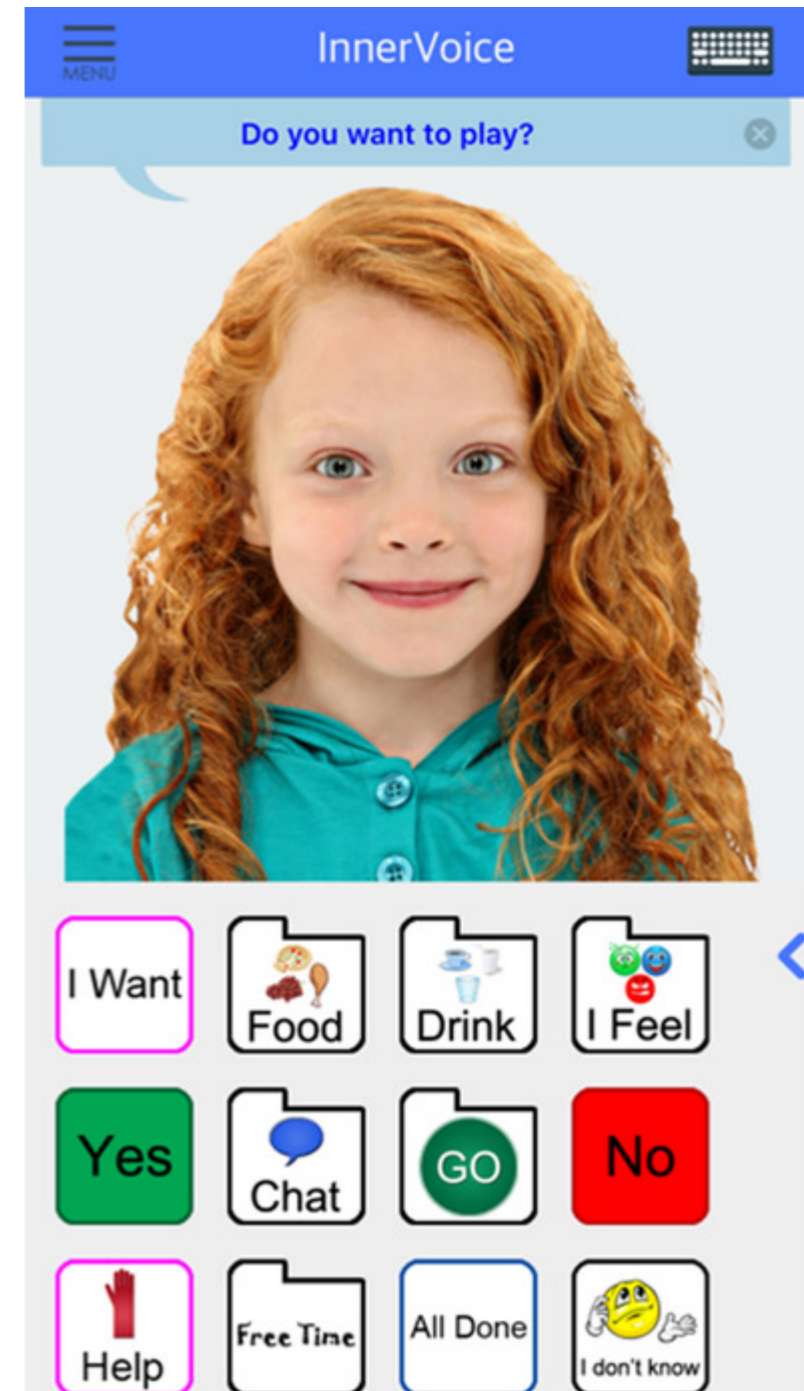
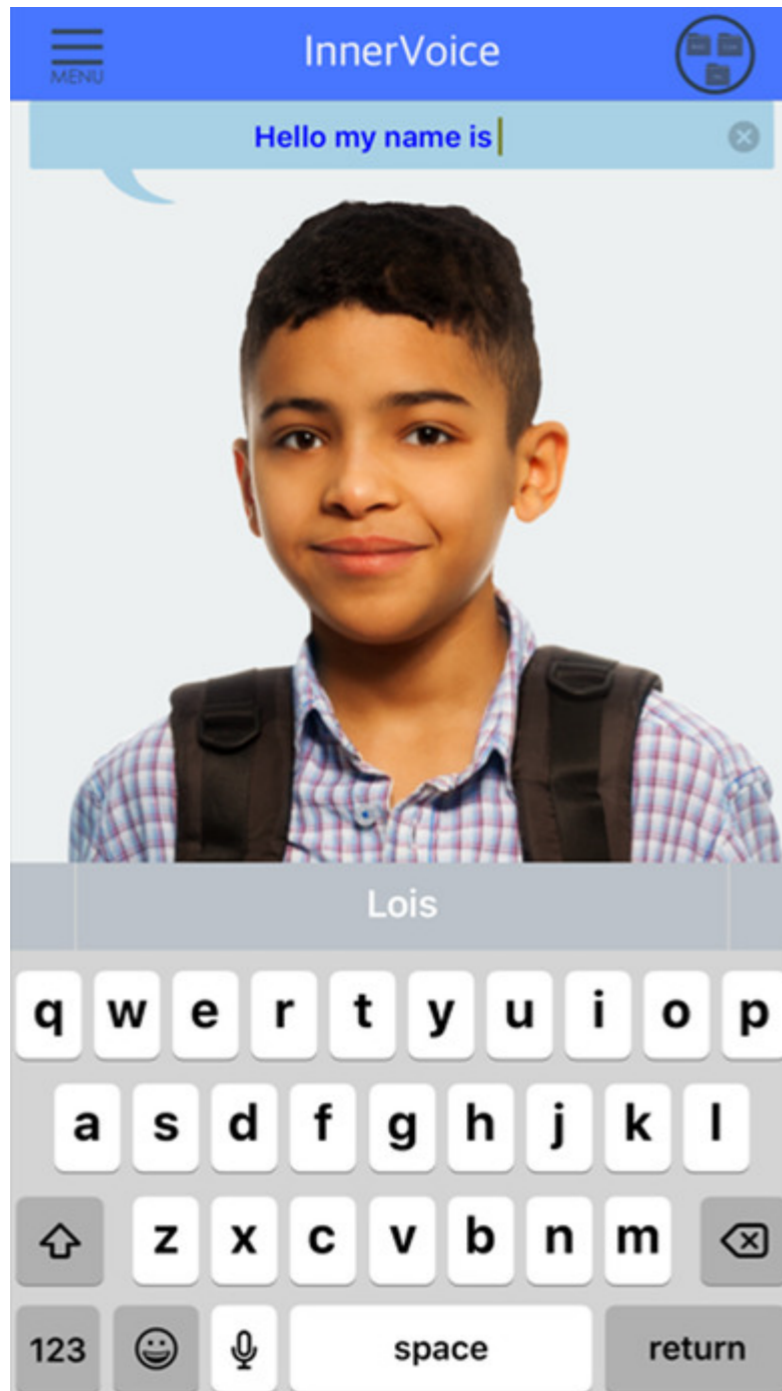
\$2.99



InnerVoice

\$19.99

Available on the App Store



Wordtoob

\$11.99

Available on the
App Store



Giphy

Free

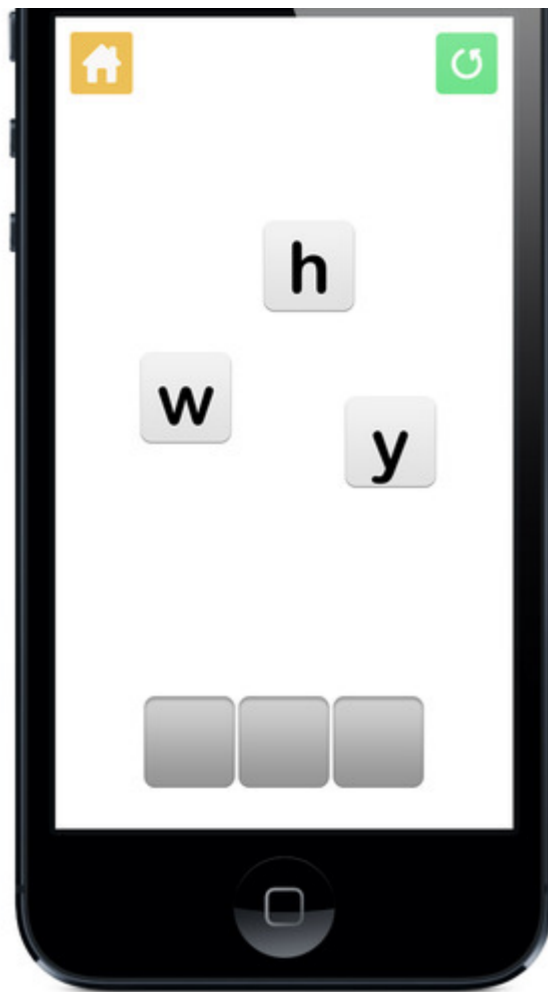


Literacy

-  **Little Speller**
-  **Sentence Maker—**
-  **Touch and Write**
-  **Bitsboard PRO**
-  **Interactive Alphabet ABCs**

Little Speller

Free



Endorsed by Parents & Teachers

Makes learning sight words FUN!



Endorsed by parents & teachers

Designed to be super easy to use for kids

Sentence Maker

\$0.99



s h o e s



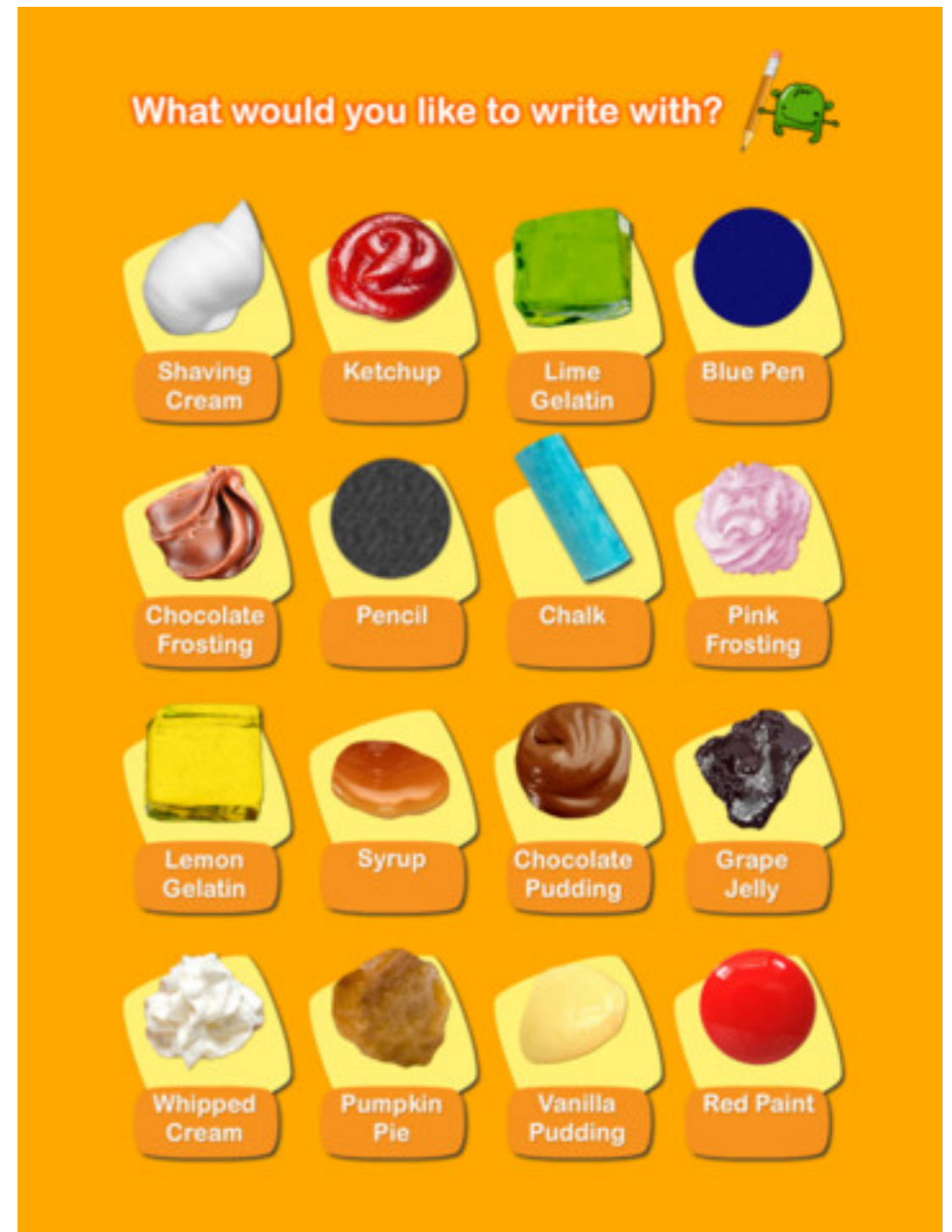
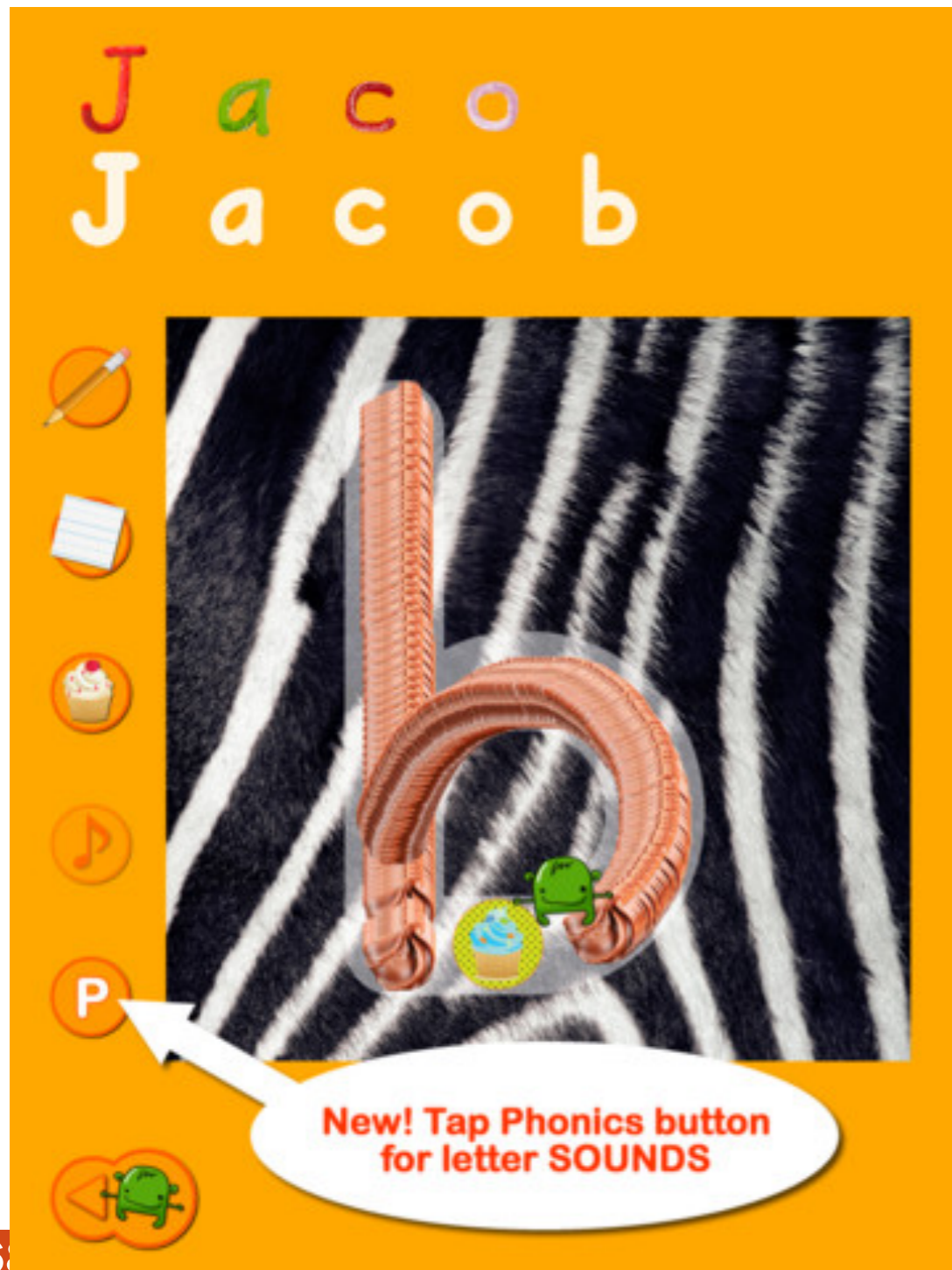
m y

m y

s h o e s

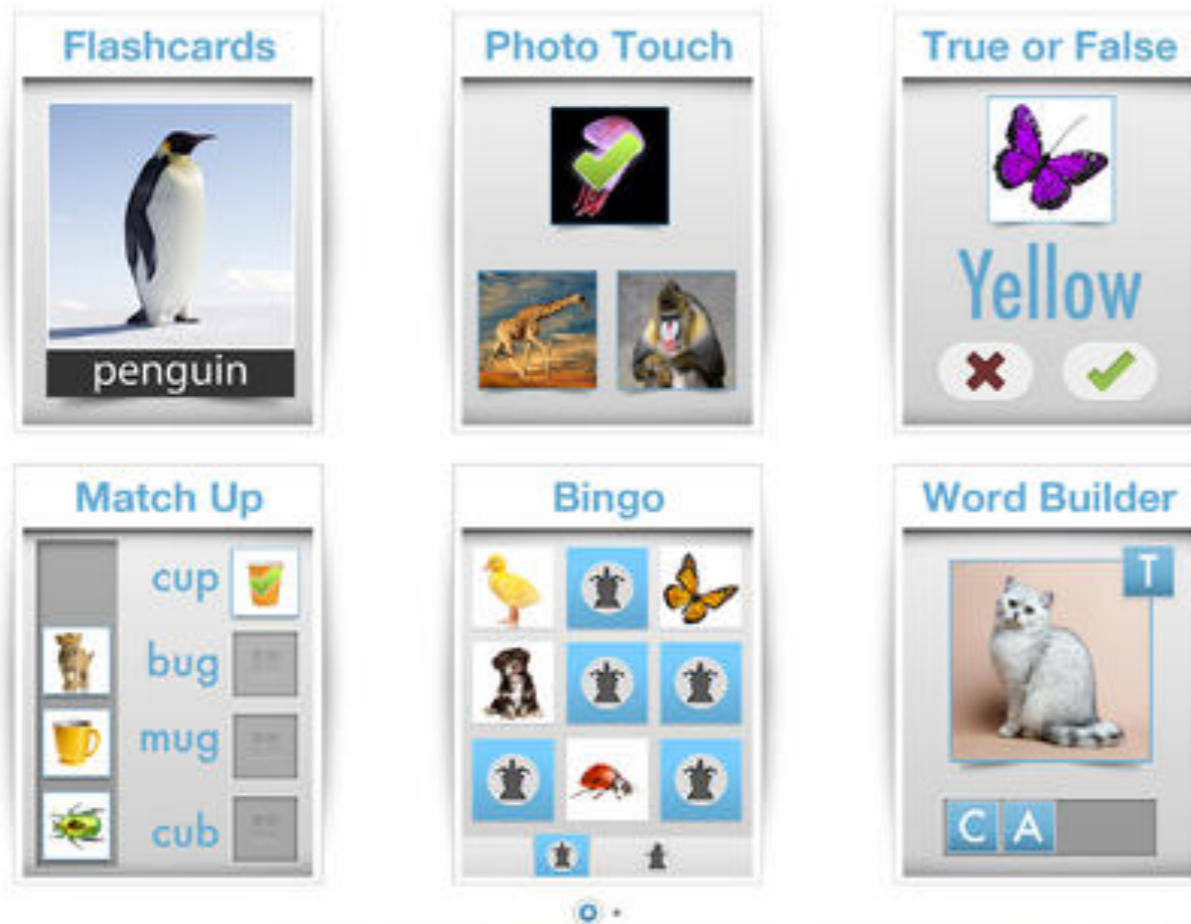
Touch and Write

\$2.99



Bitsboard PRO

\$19.99



Great games make learning fun

A catalog created by teachers and students.



Create new cards in seconds
Share your content with others in one click.

Interactive Alphabet ABCs

\$2.99



Language



Fun With Directions –



Video Touch –



Mobile Education Store -

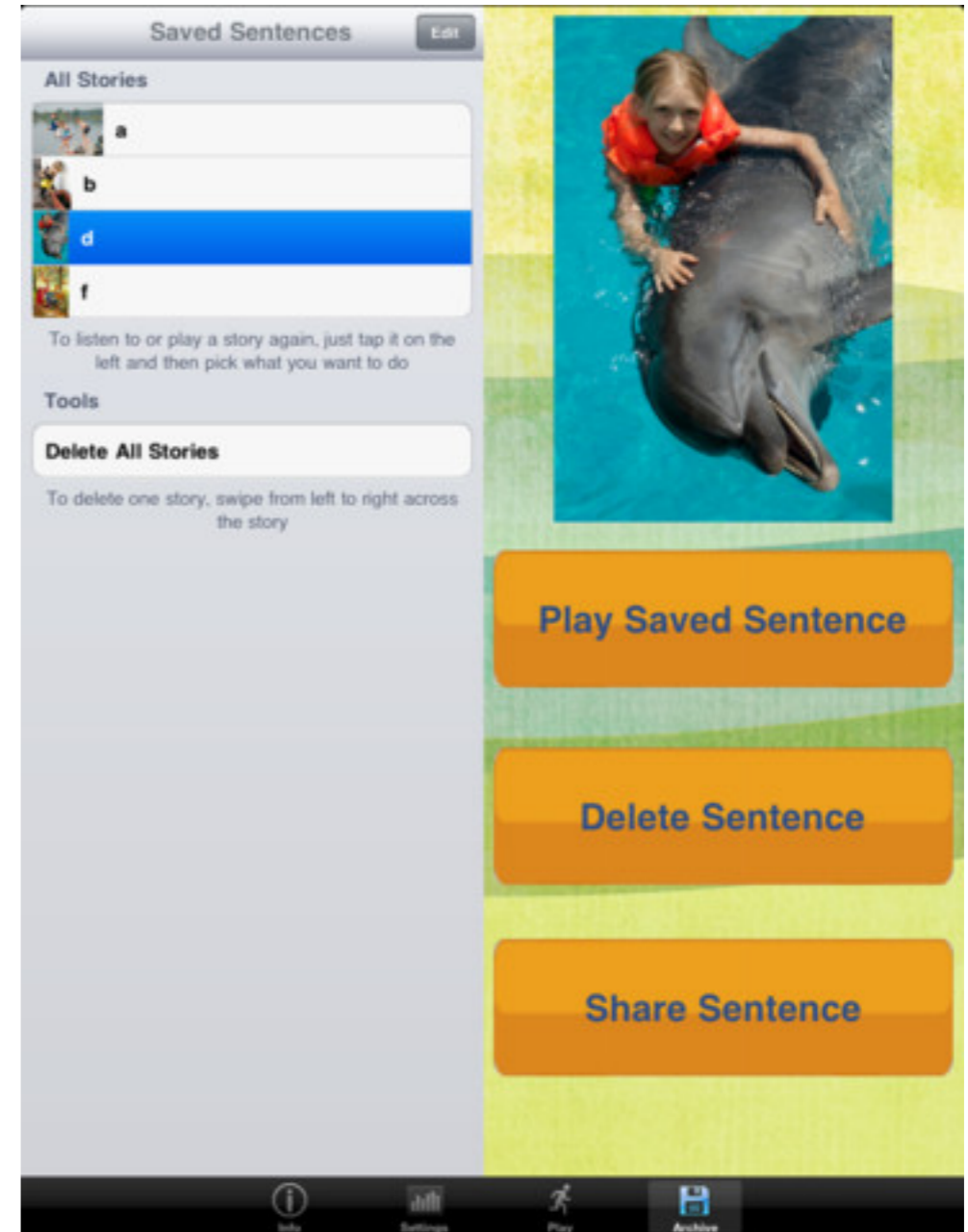


First Phrases





Mobile Education Store Young Adults & Teen



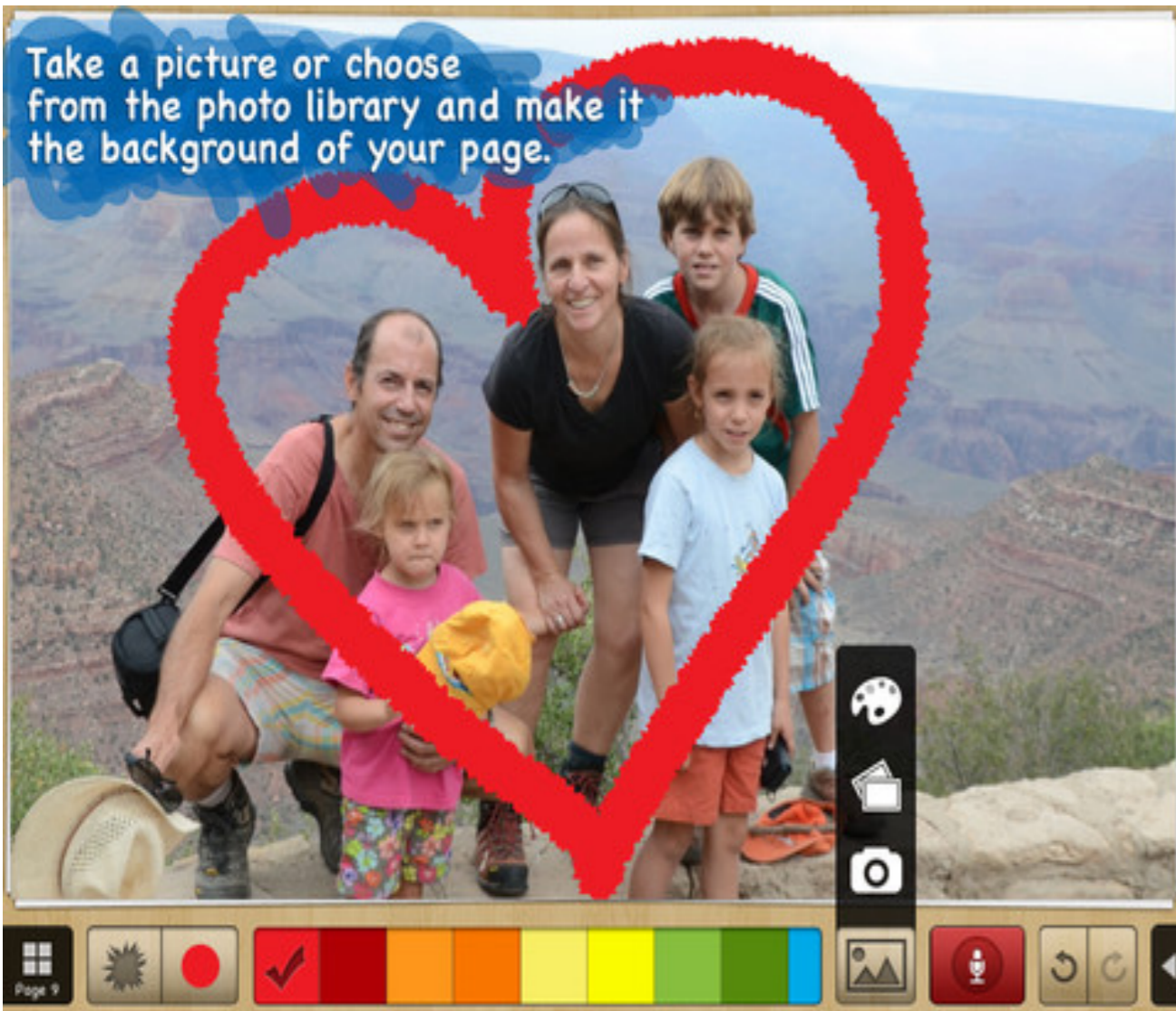
Language Builder



Book Creation Apps

-  **Book Creator (video & iBooks)**
-  **My Story (draw on pages)**
-  **Pictello – (saves to iBooks)**
-  **Bookabi -**

My Story - draw on pages and pictures & iBooks



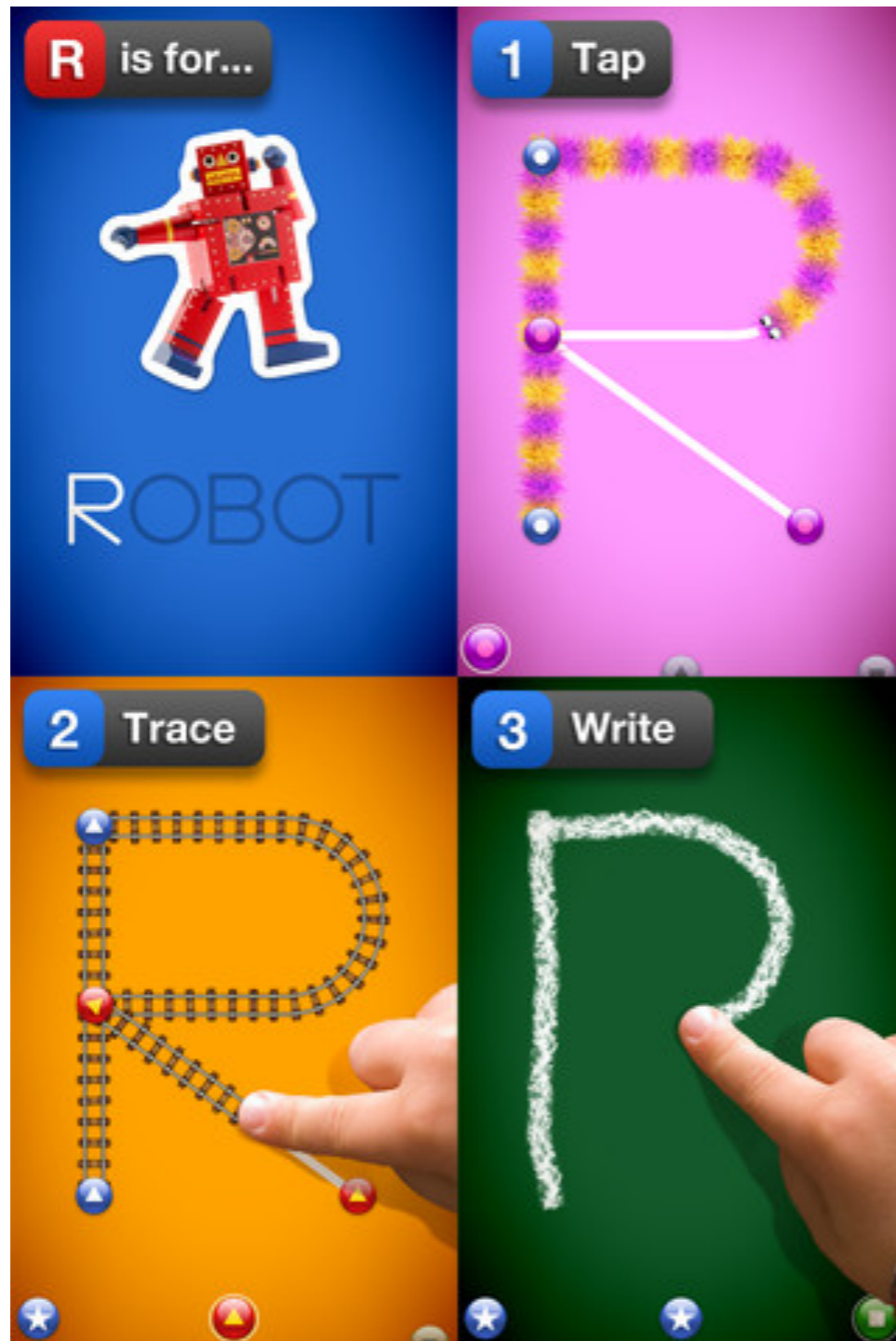
Occupational Therapy

- Handwriting
- Motor Planning
- Activities of Daily Living



-  Ready to Print
-  Doodle Buddy –
-  Touch and Write
-  Write My Name & Little Writer
-  Letter School –

Letter School



Interactive Alphabet ABCs



-  **Dress-Up –**
-  **iDress for Weather –**
-  **See Me Go Potty –**
-  **More Pizza & Cookie Doodle, etc. –**

Dress - Up



See Me Go Potty

Name

AvaKid

Gender: Girl

Hair Color: Brown

Hair Style: Short Straight

Eye Color: Hazel

Skin Tone:

Shirt Color: Pink

Mouth Size: Small

Face Shape: Round

SAVE

Go potty please!



MENU





External Features



Accessories

- **Cases**
- **Velcro**
- **Switches**
- **Apple TV**
- **Stylus**
- **iKeyboard**
- **Gloves**
- **Screen Protector**

Table 2

Case	Droppable 	* Spill Proof (Indirect spills) 	Carrying Case 	Stand 	Notes 



Lois Jean Brady

www.proactivespechttherapy.com

loisjeanbrady@gmail.com

* While no case can promise 100% protection from spills directly on the surface of the iPad, cases that elevate the iPad above table top can offer some protection from spills and sticky surfaces.

Gripcase-usa.com

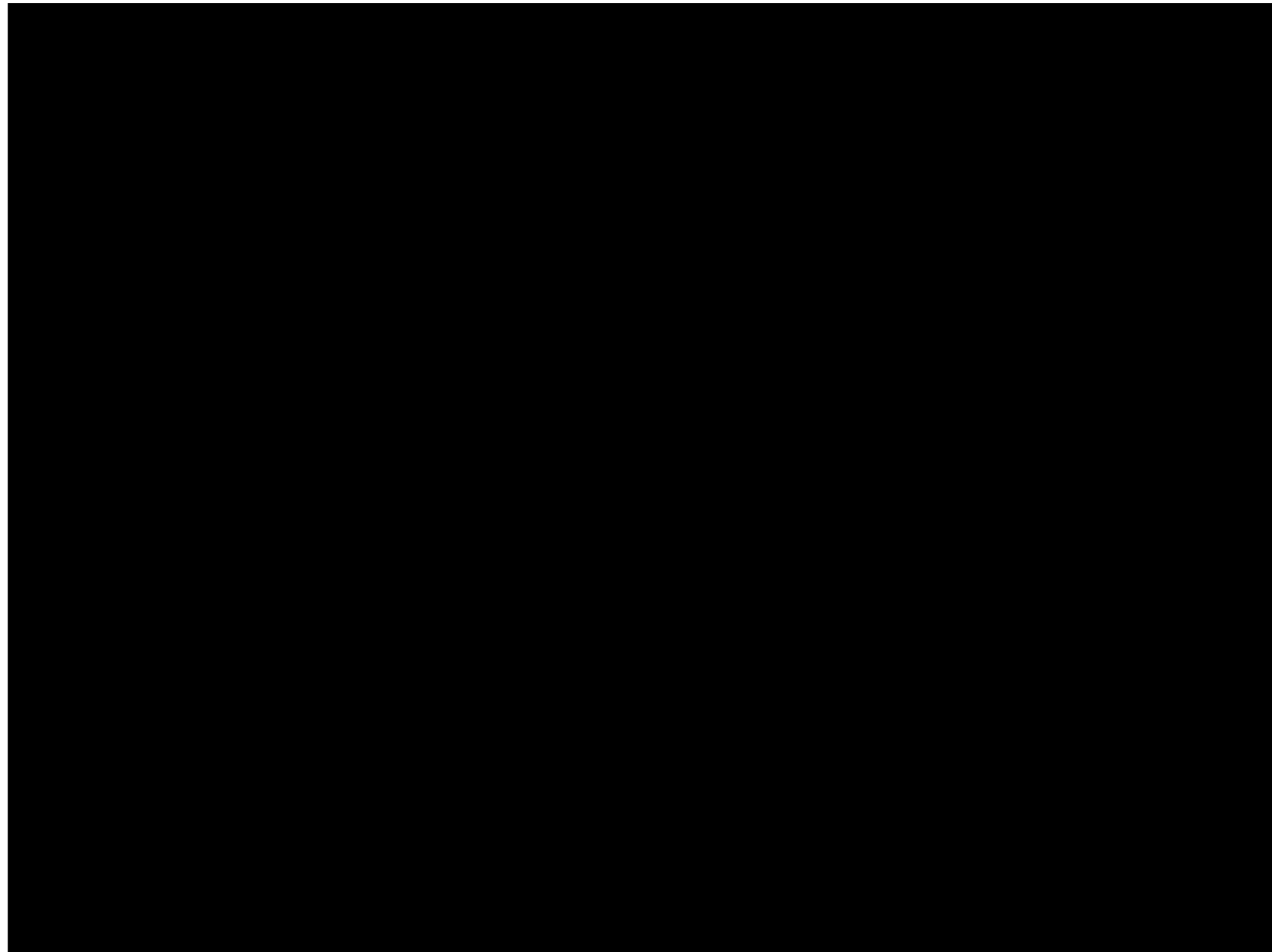


iBallz



iBallz Originals sold separately.

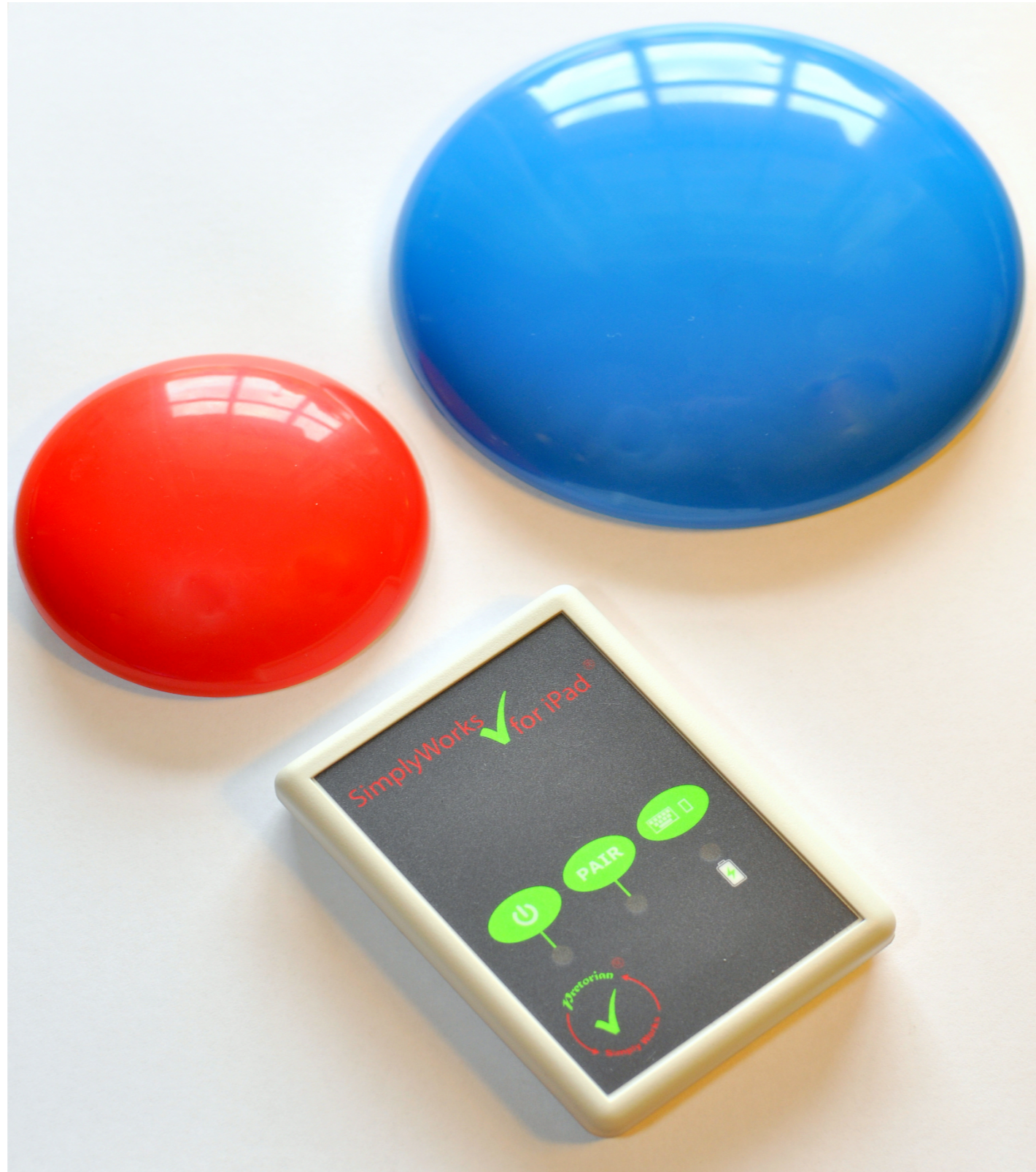
iBallz (Don't Try This at Home!!)



Big Grips + Stand



iPad Switches



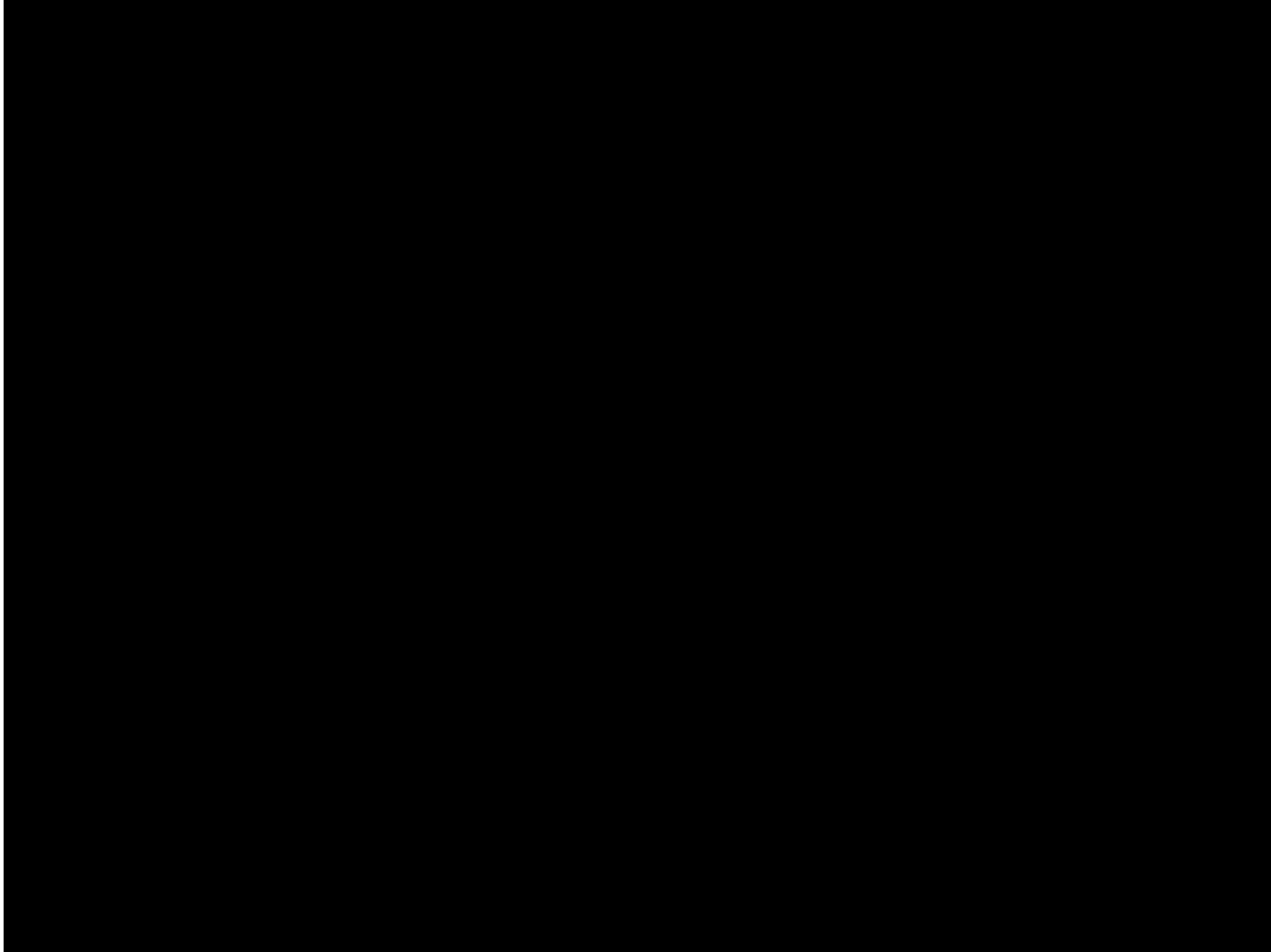
Apple tv



The Stylus



Stylus



iKeyboard



Gloves



Silicone texture
for enhanced grip & control



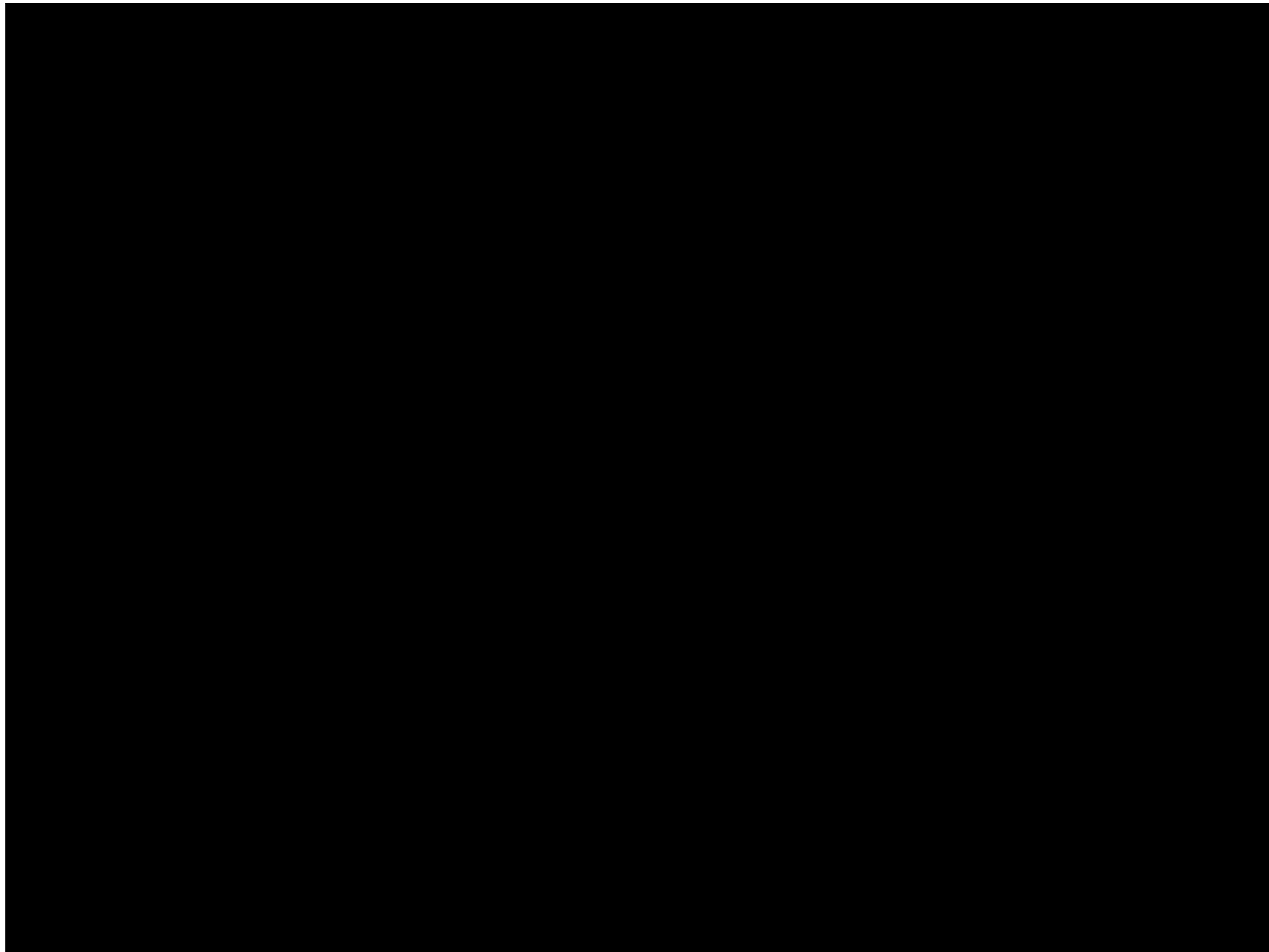
Screen Protector*

Anti-glare



A New Use for
an
Old Accessory!

Accessories – (video)



Music Promotes Speech & Language



● **Wheels on the Bus** — Interactive songbook with record

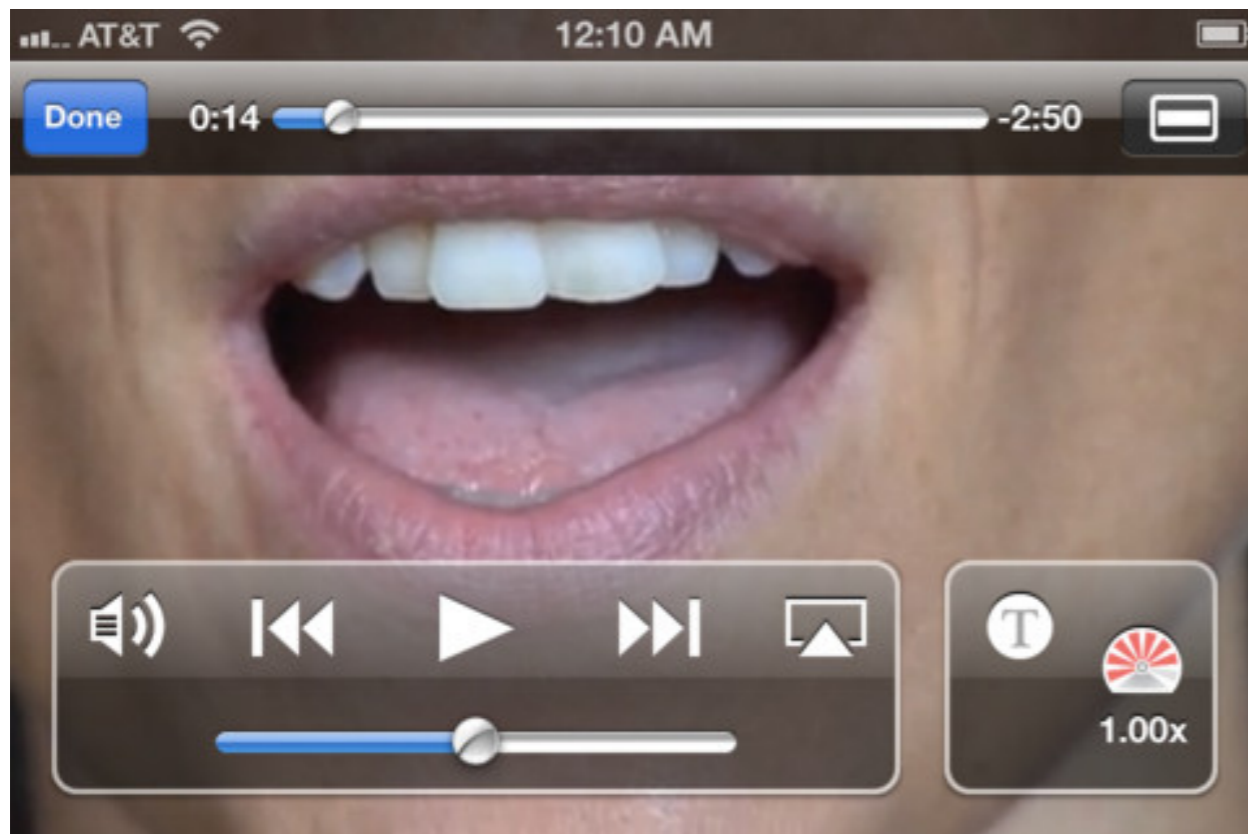


● **VAST Songs 2 – Kids** - Video modeling with music

Wheels on the Bus – (live demo)



VAST Songs 2 – Kids



Utilities



iTranslate



Keedogo



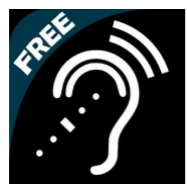
Text Full Screen



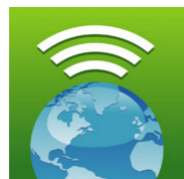
Educreations



Common Core Standards



i-Hear – Free – Hearing Aid

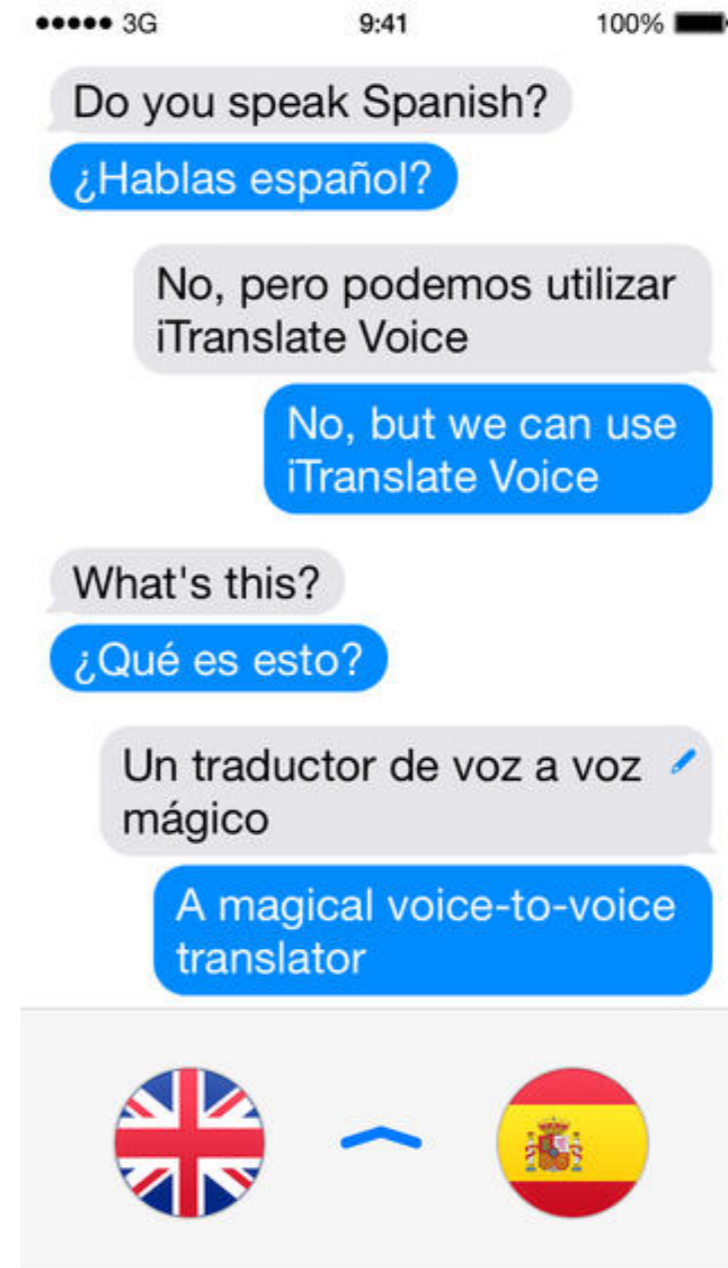
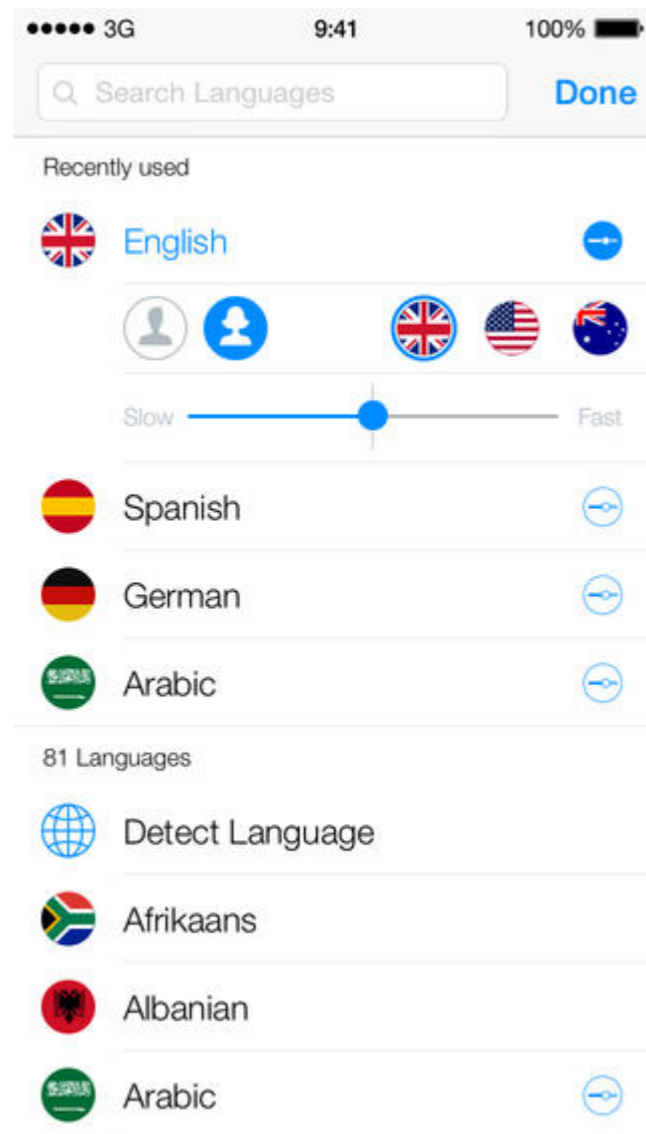


Mobicip Safe Browser With Parental Control

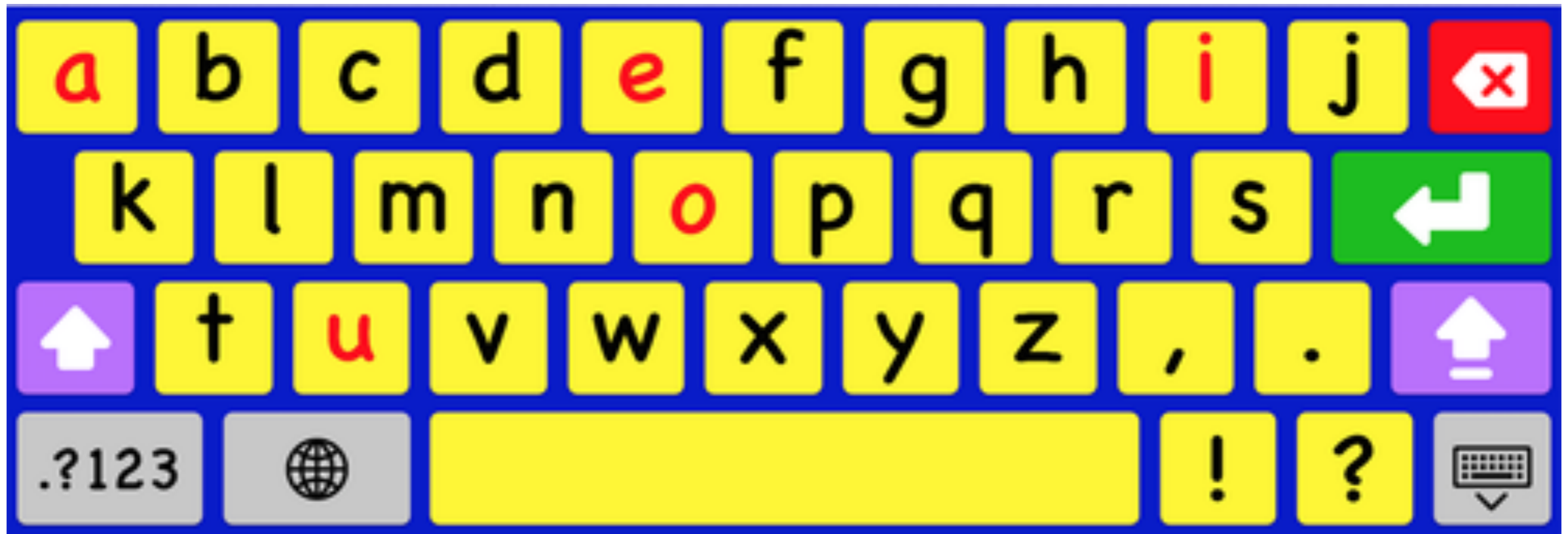
iTranslate – translator & dictionary

translates 80+ languages

iTranslate Voice 2 voice to voice translator



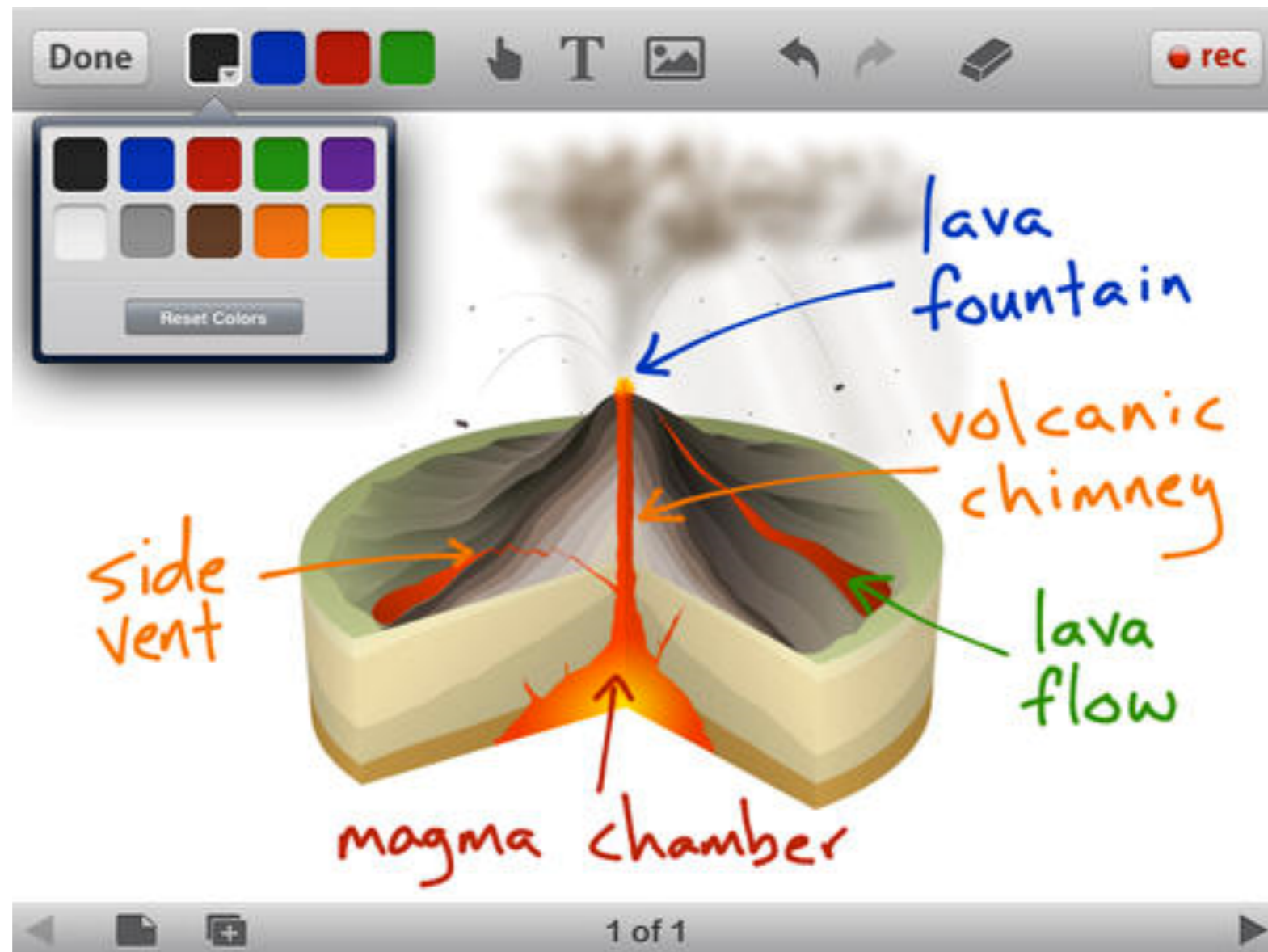
Keedogo



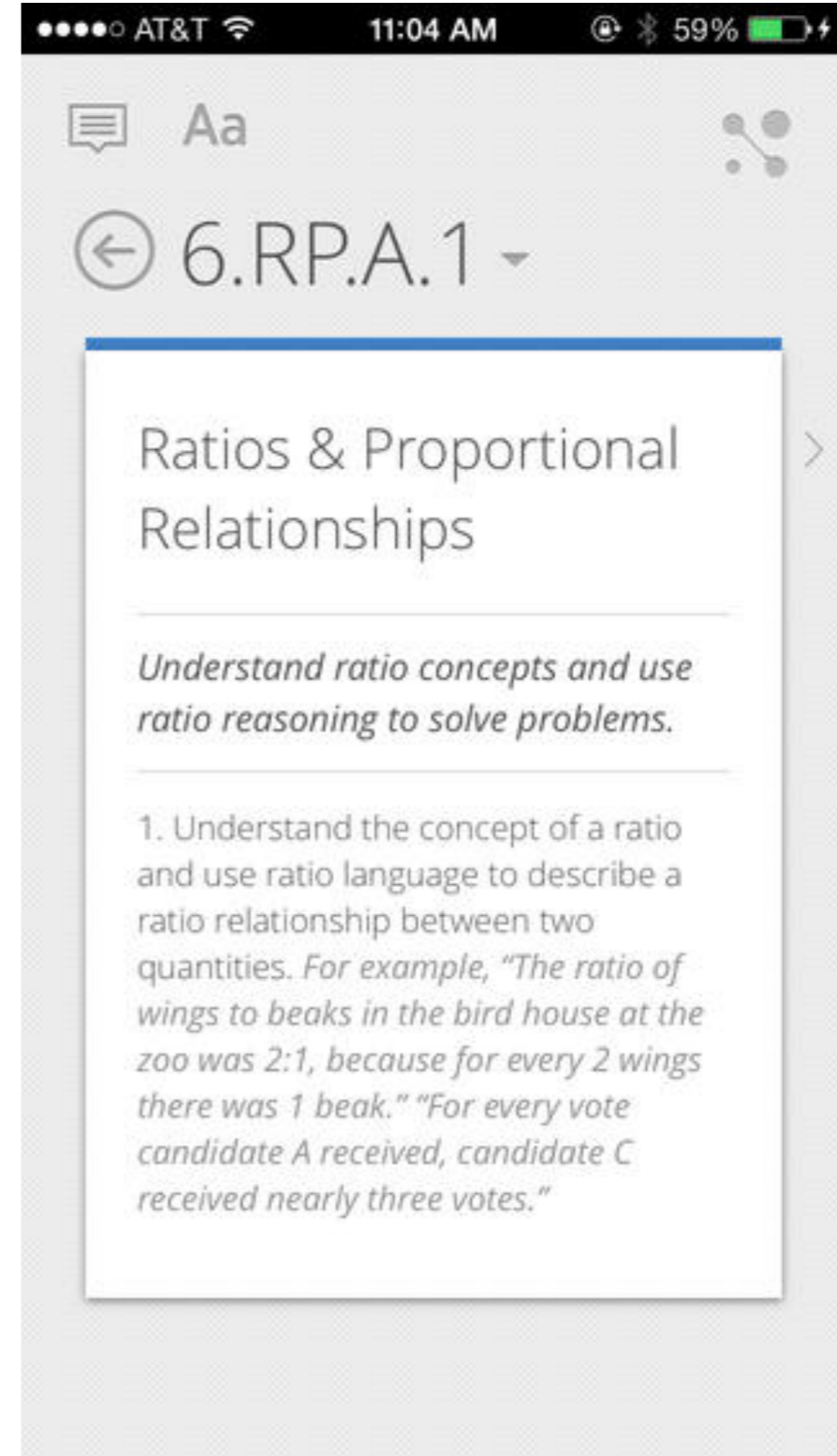
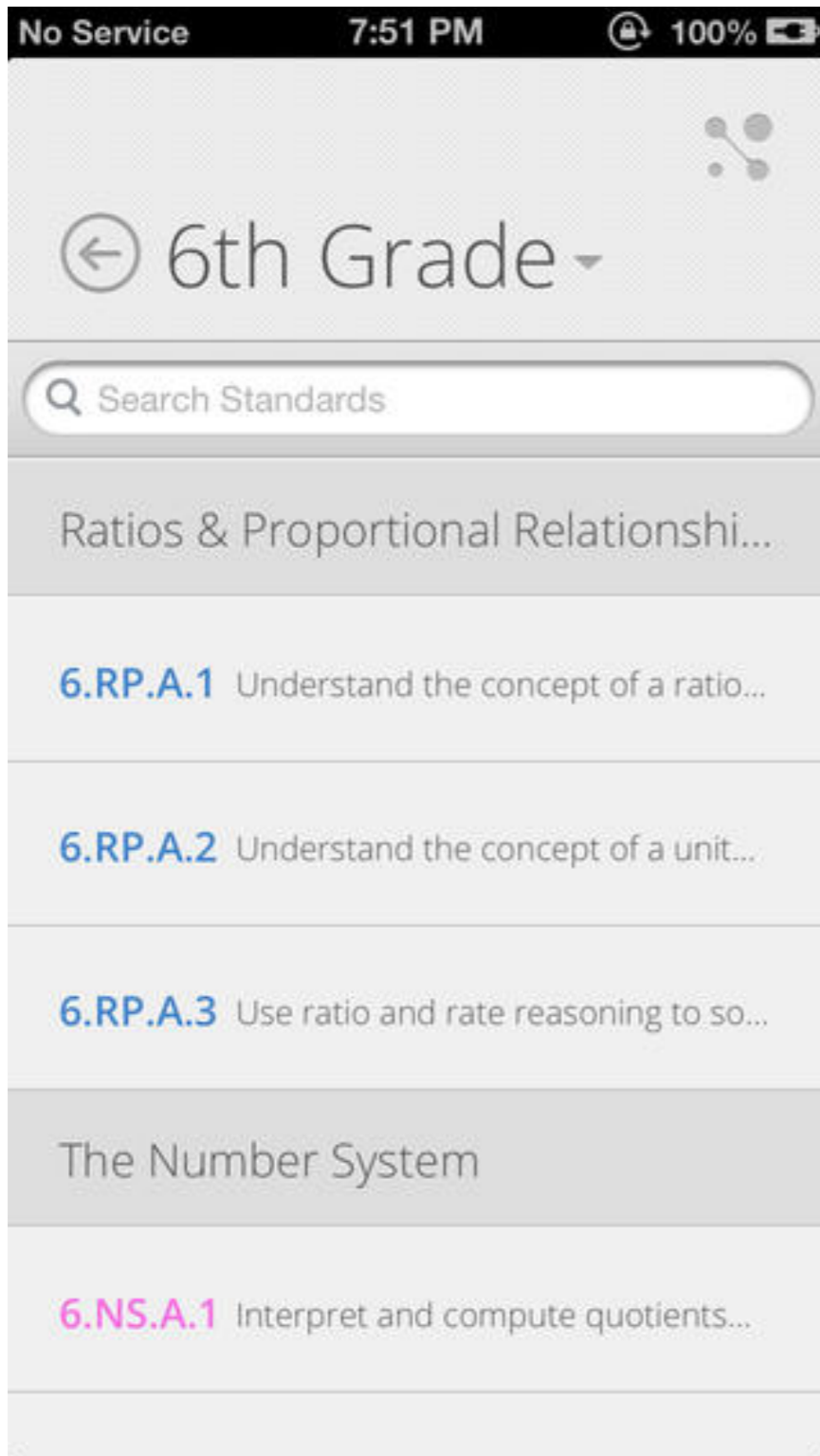
Text Full Screen

Text **Full** Screen

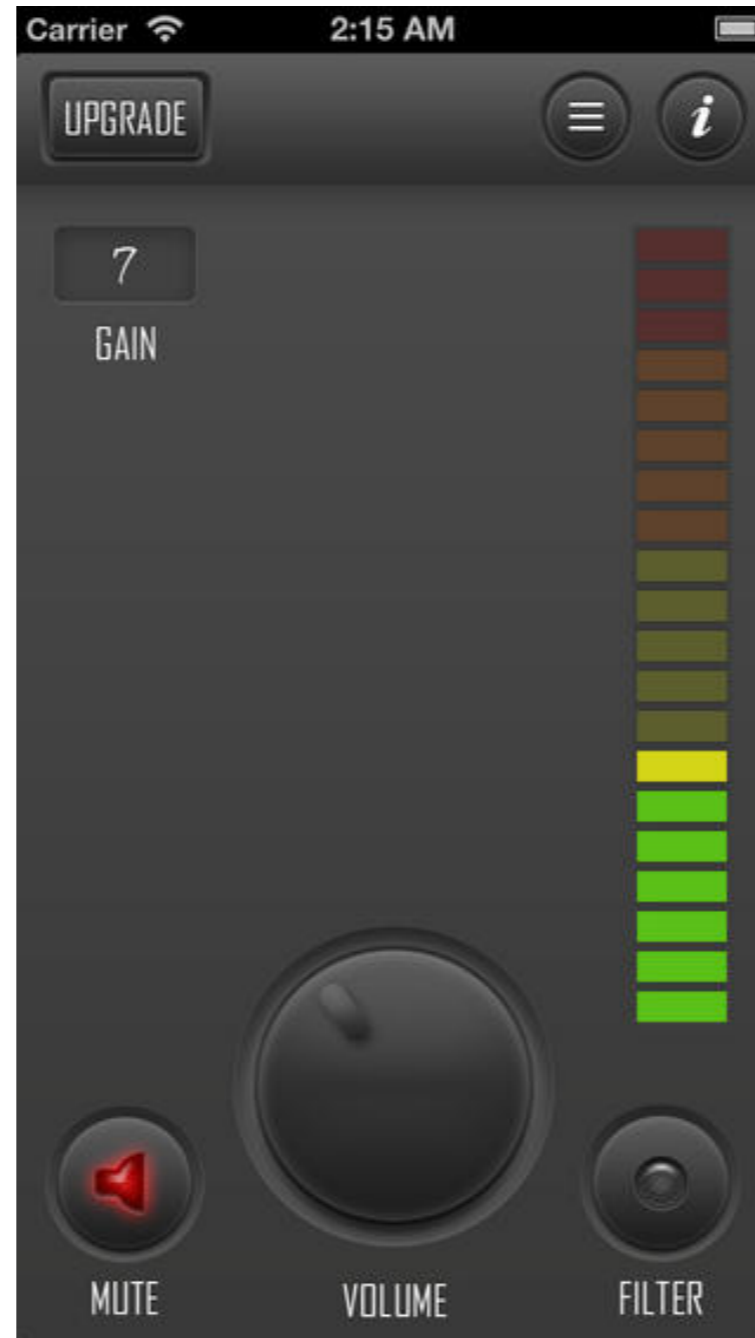
Educreations – interactive white board



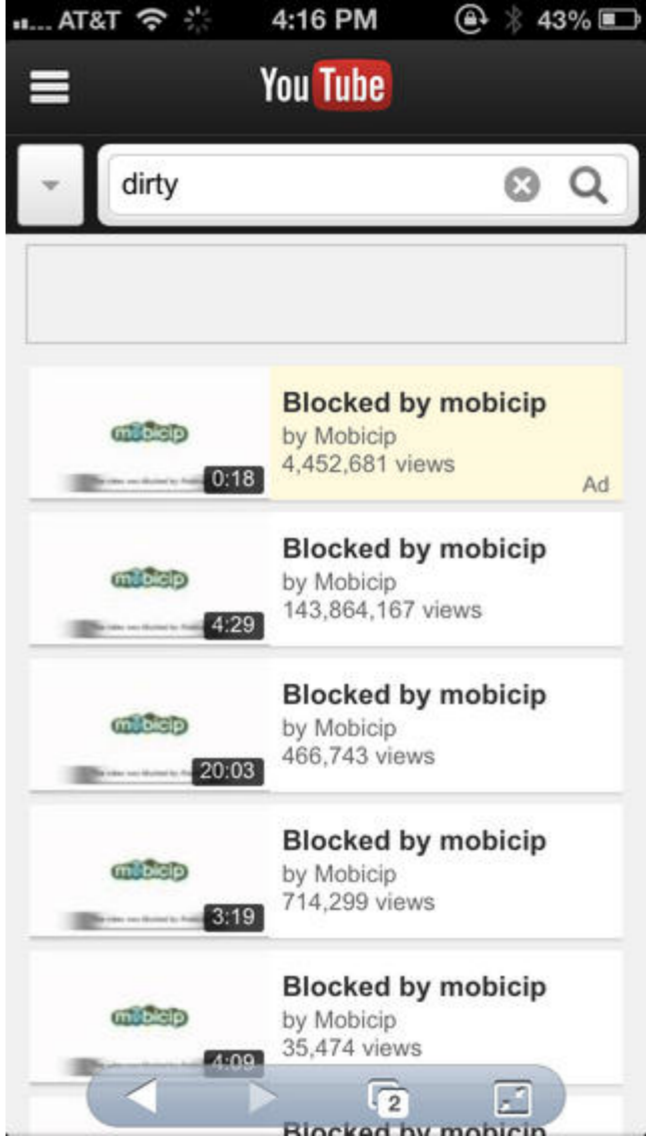
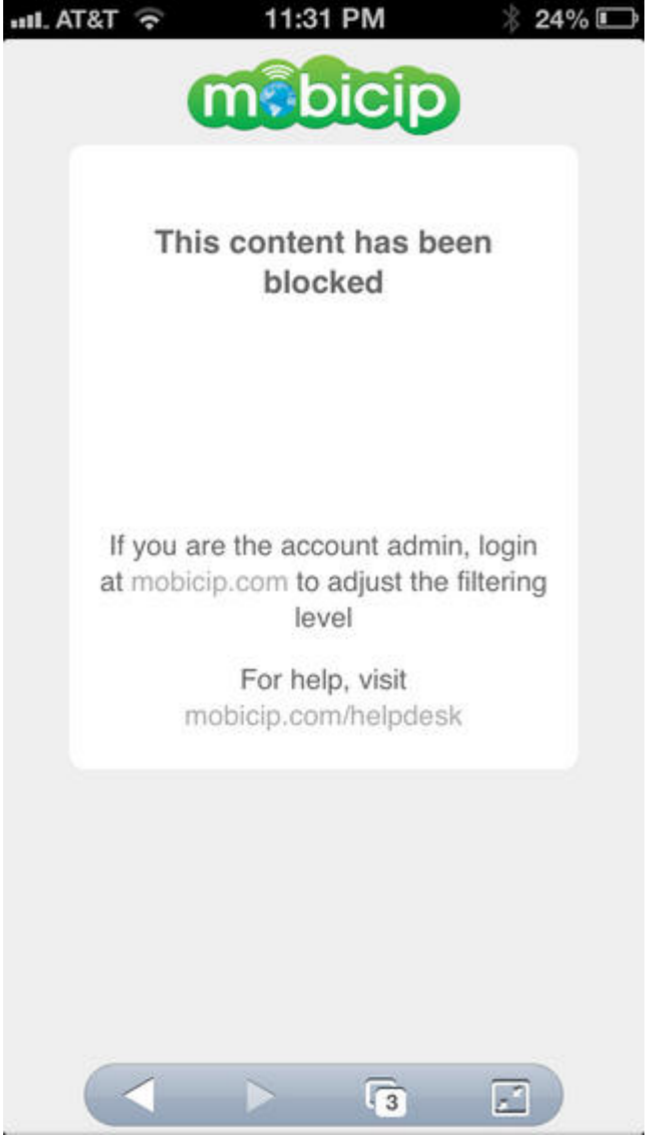
Common Core Standards



i-Hear – Free – Hearing Aid



Mobicip Safe Browser with Parental Control



No Fail-Bring Them to the Table Apps



• Shape Builder –



• Dinosaurs Everywhere!



• Action Movie



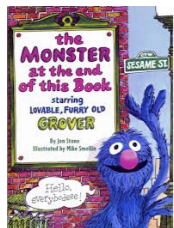
• First Words- PRO –



• Temple Run & Angry Birds



• Photo Booth –



• The Monster at the end of this Book

Social Network

Join my Facebook page *Apps for Autism* -

<http://www.facebook.com/#!/AppsForAutism>

• iTeach Special Education-iDevices in Special Education -

<http://www.facebook.com/#!/groups/iTeachSpecialEducation/>

• Assistive Technology - <http://www.facebook.com/#!/groups/125241767530963/>

Book

• *Apps for Autism* - Lois Jean Brady

• *Autism Intervention in the iEra* – Penina Rybak

• **Apps for Finding Apps**

• AppAdvice - Free at the app store. Free and reduced price apps.

• Autism Apps - Free at the app store. Search and categorizes autism specific apps.

• App Store Search Engine - Great way to search and read about apps with customer reviews.

Where Can I Find More Apps & Info.? ⁵⁷

Websites

- **Autism Speaks** - <http://www.autismspeaks.org/autism-apps>
- **iTherapy, LLC**- www.itherapyllc.com
- **TherapyApp411** - <http://www.therapyapp411.com>
- **Smart Apps for Special Needs** - <http://www.smartappsforspecialneeds.com/>
- **CNET** – www.cnet.com
- **RAM mounting systems** – www.ram-mount.com

Foundations and Groups that Offer Grants for Technology 58-60

- **ACT Today** <http://www.act-today.org/act-today-grant-program.php>
- **Hannah and Friends** <http://www.hannahandfriends.org/grants.html>
- **iTaalk** <http://www.itaalk.org/>
- **Parkers Purpose** <http://www.parkerspurpose.net/>
- **Conover Company** <http://conovercompany.com/grants/>
- **Danny's Wish** <http://www.squidoo.com/danny-s-wish-foundation>
- **Small Steps in Speech** <http://www.smallstepsinspeech.org/>
- **Autism Cares**
<http://www.autismcares.org/site/c.mqLOIYOBKlF/b.4745901/k.BD21/Home.htm>

What Else Can I do to Get an iPad?

1. Website Fundraisers

The following websites will let you set-up accounts so that family and friends can send love and donate funds to your specific campaign.

Chip In – <http://www.chipin.com/>

Fundrazr – <http://www.fundrazr.com/>

Give Forward – <http://www.giveforward.com/>

The Puzzling Piece – <http://www.thepuzzlingpiece.com/>

iPads4irishautism – http://www.mycharity.ie/event/i_want_my_iphone_for_autism/

[gofundme](http://www.gofundme.com/) – <http://www.gofundme.com/>

Happy Holiday

Ask friends and families to forgo the usual presents and give Apple/iTune gift cards for birthday, Christmas, holiday favors, etc. This adds up quickly and most students will have enough funds for an iPad and apps within 4-6 months.



Local Community Groups

Inquire about donations from local businesses, community or charity groups. Many local groups will help with community fundraising by having a pancake breakfast or rummage sale.



Credit Card Points

Many credit cards give points for dollar(s) spent. Points can be redeemed for an iPad or cash to purchase an iPad. Check with your credit card company to see if they double points on certain purchases (gas & groceries).

The logo consists of the words "REWARDS" and "POINTS" stacked vertically in a blue, sans-serif font. A green five-pointed star is positioned between the two words, centered over the letter 'I' in "POINTS".

REWARDS
POINTS

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