

# **Apps in Action for Autism Spectrum Disorders**



**ATEC**  
**Apps in Action for Autism**  
**October 28, 2011**

**WELCOME!**

# Apps in Action for Autism Spectrum Disorders



Barbara Welsford, M.Ed., ATP, ATS, LDATS,  
ADE Apple Distinguished Educator 2011  
Assistive Technology Specialist

In the field of AT for over 25 years  
Assistive Technology Specialist SSRSB

Works with students from K-12 and Early  
Intervention Program 1 year prior to entering  
school. All abilities. All AT.

Anita Kingdon, AT Facilitator SSRSB  
25 years experience in the AT field

Specialists in Universal Instructional Design

# Apps in Action for Autism Spectrum Disorders



Please visit our website at  
<http://assist-tech.ednet.ns.ca>

Click on the *iPod Touch and iPad Resources* tab  
to view our Project reports on utilizing iPod Touches and iPads  
with students with Autism and other disabilities

# Apps in Action for Autism Spectrum Disorders



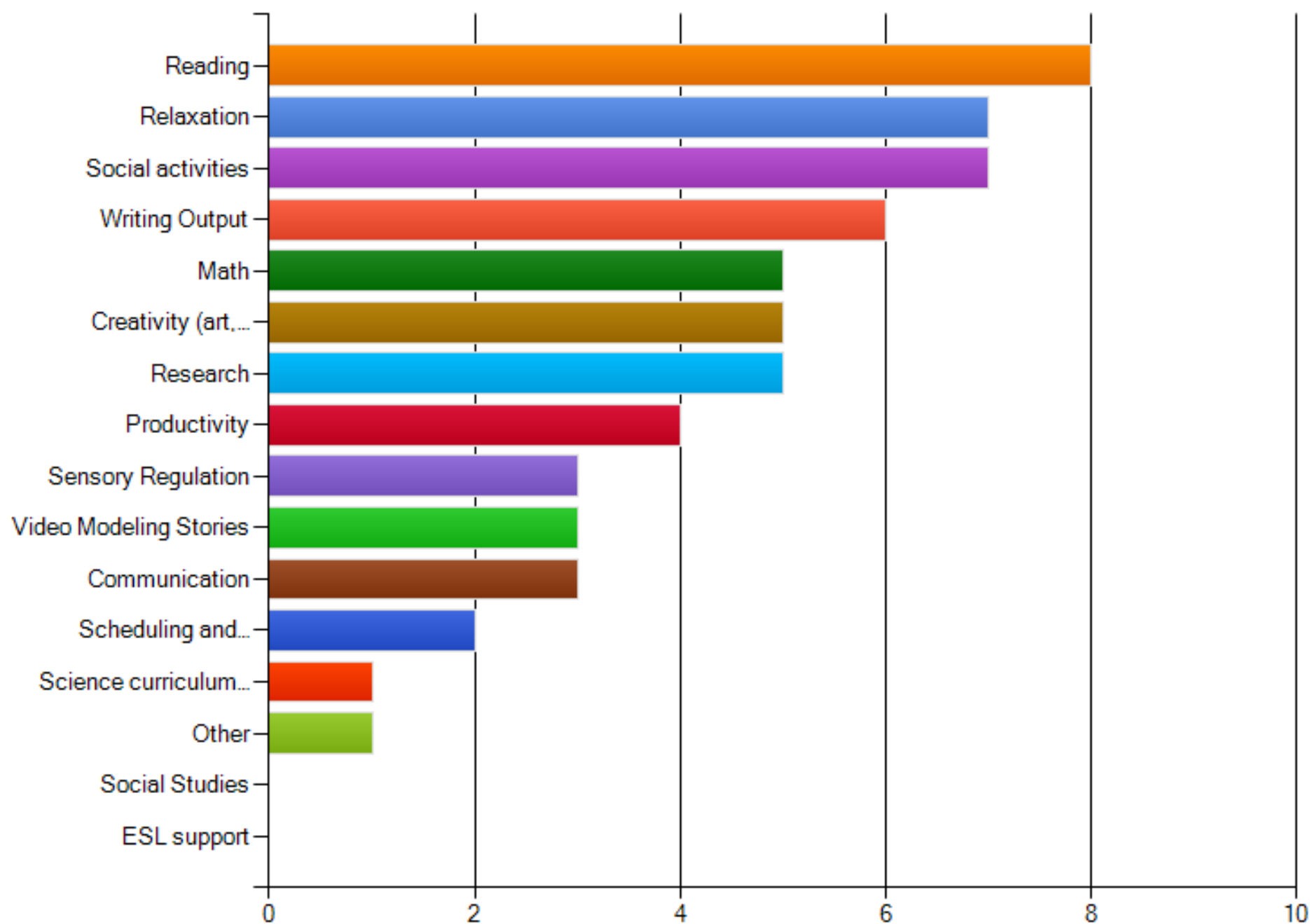
The iPod Touch, iPad and/or iPhone...

- Intuitive & Easy to Use
- Functional
- Affordable
- Accessible
- Portable





### My student uses the iPad for: (check at least one)



# Apps in Action for Autism Spectrum Disorders



## Apps that Enhance Performance of Students with Autism Spectrum Disorder

***A Live Demonstration of Apps in Action  
Utilized with Students with ASD in the SSRSB***

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## **NOTE:**

**Use and application of any Assistive Technology is a  
PROCESS**

**Making the match to the device and the App is critical  
for successful use and application**

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## Autism Spectrum Disorder & the iPod Touch / iPad Feedback from parents, teachers & students...

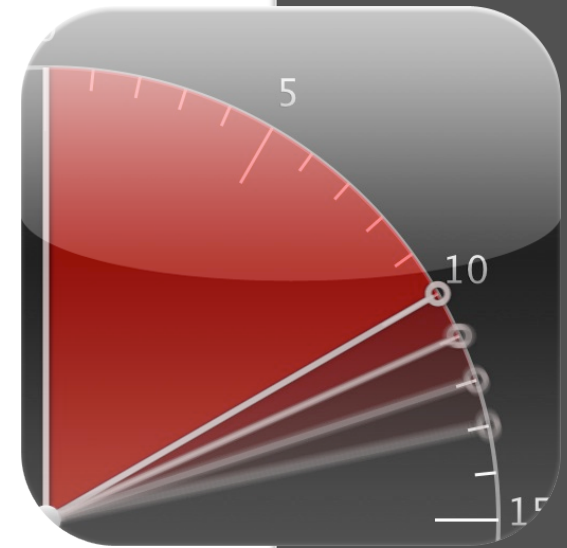
- increased engagement in curricular related tasks
- reduced anxiety when able to access calendar APPS, relax APPS and self regulation activities on the iPod Touch
- improved expressive language (sideways keyboard, word prediction, ease of use, print magic, Dragon)
- increased independent work skills
- increased independent self regulation skills
- ease of use of learning and applying for teachers, parents and students
- provided a means of portable communication for one student with ASD who is non verbal
- affordable •portable
- motivational device (iRewards use etc.)
- enhancement of basic skills including math, science, language arts, ebook access, time, life skills, functional skills, social thinking and social skills )
- enhanced skills in scheduling
- enhanced skills in communicating and socializing and much more.

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## Visual Timer

- ✓ .99¢
- ✓ Visual graphics display
- ✓ Drag to the desired time (up to 60 minutes)
- ✓ Auditory and/or vibration to designate completion
- ✓ Choice of counter clockwise or clockwise direction
- ✓ Able to run in the background
- ✓ Utilize for visual time on task, ability to multitask in the background while using another App, utilize also for task completion notification



**Use & Application: Lindsay Welsford**

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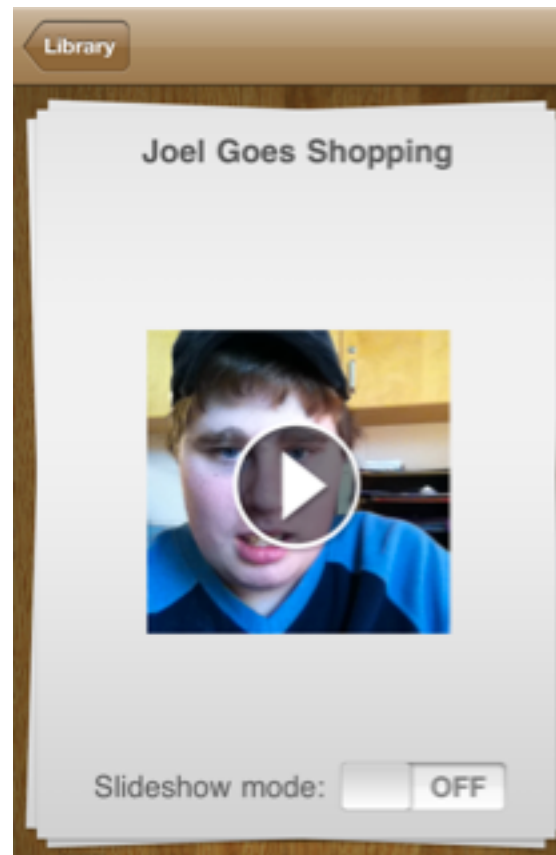
## Multi-Use App: Pictello

- ✓ \$14.99
- ✓ ejournals, picture stories, voice recorded stories
- ✓ Research projects
- ✓ Book reports
- ✓ Snap a picture and import it into Pictello in 2 steps
- ✓ Text to speech for read aloud books
- ✓ Can be used in ANY curriculum
- ✓ File Share in iTunes Library
- ✓ Use and application is only limited to your imagination!
- ✓ Utilize with students with autism for developing visual routines, social stories, behaviour shaping, transition stories, curriculum based projects



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## Case Study: Using Pictello with Joel



**Joel Goes Shopping**



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## Multi-Use App: ReelDirector

Capture video and edit right on your iPod Touch!

- ✓ Camera for iPod Touch 4G and iPad2
- ✓ \$1.99
- ✓ Edit captured videos
- ✓ Cut, sequence clips, add transitions, titles
- ✓ Voice over and text additional options to add to clips
- ✓ Utilize with students with autism for developing personalized visual video coaching, behaviour shaping videos, routines, curriculum based projects, language based activities including modeling articulation

**Use & Application:**

**Andrea Conrad PST Case Study**





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## Pocket Pond

- ✓ Free
- ✓ Relaxing sounds of nature
- ✓ Observe fish schooling behaviour
- ✓ Feed the fish
- ✓ Delete fish you don't want
- ✓ Add a thunderstorm background
- ✓ Interactive
- ✓ Add lily pads and other features to the pond
- ✓ Swipe the water and listen to the rippling sound
- ✓ Utilize proactively with students for preparing for a transition or anxiety based task
- ✓ Utilize reactively to calm a student in a heightened state of anxiety



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## Visules

- ✓ \$4.99
- ✓ Easy to use and apply
- ✓ Ability to import your own pictures
- ✓ Actions are made first then added to a flow
- ✓ Multiple actions come with the App
- ✓ Utilize to easily develop and edit daily school or home based routines
- ✓ Reduces anxiety and structures the day
- ✓ Edit on the go, anytime, anywhere



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## iRewards: Motivation and Goal Setting

### iRewards

- ✓ \$3.99 or free lite version
- ✓ Easy to use rewards chart for children
- ✓ Type in their name
- ✓ Select a few tasks
- ✓ Reward their accomplishments with a checkmark on a weekly chart
- ✓ Utilize with students with autism to work towards predetermined goals throughout a day or week, student or teacher checks off the task completion, email out reports to home or teachers



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## Rory's Story Cubes: Written Output, Idea Generation

- ✓ \$1.99
- ✓ 9 cubes, 54 images offering an unlimited number of stories
- ✓ Shake the iPod Touch, roll the cubes and create a story based on the 9 images facing
- ✓ Snap a picture of the “deck” and send to photo library
- ✓ Use later to enhance the written document
- ✓ Copy/paste the image into DocstoGo or another writing App
- ✓ Fun, easy, engaging and motivating
- ✓ Utilize to motivate reluctant writers, spark imagination, enhance social skills, turn taking, verbal output, communication, creativity

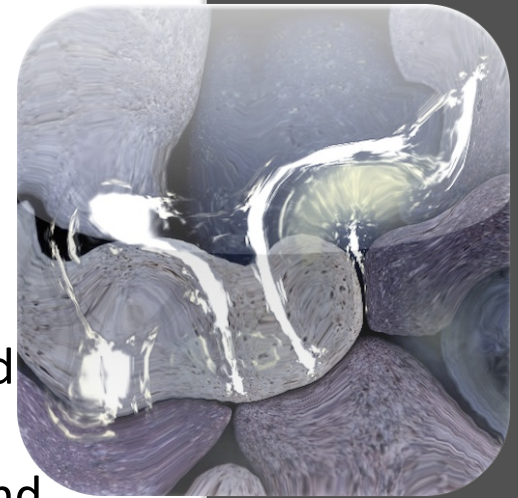


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## Fluid2 : Sensory

- ✓.99¢
- ✓Relaxation App
- ✓Listen to water rippling over a background of your choice
- ✓Change the backgrounds from your photo album
- ✓5 finger swipe to bring up settings
- ✓Turn music on or off
- ✓Throw a coin into the pond and make a wish
- ✓Students with ASD find this App particularly engaging and relaxing
- ✓Utilize for transition preparation to enhance relaxation and calm, reduce anxiety, preparation for the next task or enhance a calm state when a student is in a heightened state of arousal



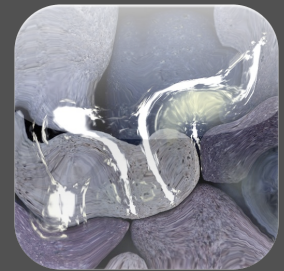
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## CASE STUDY : Fluid 2

K is a young man in grade 7. K has involved autism, is non verbal, displays difficulties with motor planning, attention, engagement, social interaction, transitioning etc. K's program is focusing on developing functional skills. K historically would not sit, attend and engage with anything for more that 1 minute before the introduction of Fluid2 on the iPad. When using Fluid2 he will sit, relax and self regulate for 15+ minutes.

Video clip demo K & iPad Supporting Sensory Regulation



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## QuickCues: Behaviour Shaping

- ✓ \$4.99
- ✓ Social scripts for teens and young adults with autism spectrum disorder
- ✓ Scripts like Talking on the phone, Listening, Changing Topics
- ✓ Other topics can be purchased through App purchase function
- ✓ Communication, Life Skills, Socialization, Coping
- ✓ Must be a strong reader
- ✓ Easy to use and apply



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## Anger

- ✓\$.99
- ✓An emotional temperature gauge
- ✓Visual gauge that the student can change and adjust as moods change
- ✓Facilitate language related to emotions and their varying intensities
- ✓Discuss how they feel, how others feel, and generate games including name the feeling
- ✓Advantage – VERY easy to use and apply in any environment
- ✓Utilize for discussion purposes, feelings, self reflection of emotion...





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## Communication Skills

- ✓ .99¢
- ✓ Functional Skills series
- ✓ To teach and reinforce communication skills in various settings and situations
- ✓ 80 videos
- ✓ Digitized voice
- ✓ Non-Verbal Communication, Listening, Speaking, Answering the Door, Answering the Phone, Making An Appointment by Phone
- ✓ Utilize to prepare a student for specific purposes as noted above, able to review at any time, as many times as needed to learn the desired behaviour and responses in certain situations



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## Receptive Communication: By Class Which Go Together: Language

- ✓ .99¢
- ✓ 90 high resolution images posing the questions “
- ✓ Reinforcing categories including animals, appliances, birds, body parts, insects, shapes, vegetables, vehicles and much more
- ✓ Offered 3 different images and the user chooses i.e. “Show me the one that we take to school” etc.
- ✓ Many different combinations
- ✓ Classical music and visual reinforcement on correct response
- ✓ Neutral response when an error is made
- ✓ Utilize to enhance receptive language, engage learner, take turns with other students to facilitate social skills and turn taking, utilize for informal assessment of student’s knowledge in this area...



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## iLiveMath Trains: Math with high interest

- ✓ \$4.99
- ✓ Answer word problems addition, subtraction, multiplication and division questions within the theme of trains and weight, speed and cargo
- ✓ Other Apps in this series include Oceans, Entomology, Speed, Animals of Africa etc.
- ✓ Easy to use
- ✓ Tremendous reinforcement including superb images and YouTube videos on achieving the correct answer
- ✓ Fun and engaging
- ✓ Enhance engagement of students with autism who have a high interest in trains in basic math skills



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## TikiNotes: Written Output Support

- ✓ Free
- ✓ Excellent word prediction
- ✓ Alternate / larger keyboard
- ✓ Email text to share
- ✓ Copy/paste to another App (i.e. Docstogo)
- ✓ Reduces keystrokes and supports spelling
- ✓ Still must be able to formulate, plan, organize and sequence ideas and get the word going in spelling process
- ✓ Support students with autism who have graphomotor skill difficulties



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## Dragon: Written Output Support

- ✓ Free
- ✓ Voice to Text
- ✓ No training
- ✓ Fairly good recognition of voice
- ✓ Ability to correct with keyboard
- ✓ Must have firewall opened to Nuance server to work
- ✓ Email text to share
- ✓ Easy to use and apply (must have Wifi)
- ✓ Still must be able to formulate idea, plan, organize, sequence and articulate ideas verbally and have technical skills to use iPod Touch



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## Touch Trainer

Precursor Skill

•\$6.99

- Simple to use cause and effect tool and learn consistency and accuracy when touching the screen
- Develop consistency and accuracy of target selection
- Develop physical motor skills and motor planning required to utilize the iPad or iPod Touch
- Plays music and/or animation where the screen is touched
- Buttons get smaller with each level of mastery
- Settings allow specific touch reinforcement of the target selection of entry level skills of tapping anywhere on the screen
- Utilize to prepare students to physically access the mobile device with consistency and accuracy



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## Proloquo2go: Communication for Students who are Non Verbal

- ✓ \$189.99
- ✓ Develop dynamic communication boards
- ✓ Use sentence window to repair communication
- ✓ +8000 images
- ✓ Add your own photos
- ✓ Easy to use and edit
- ✓ Text to speech
- ✓ Writing keyboard with word prediction
- ✓ Various voices to choose from
- ✓ Change background colours to categorize specific messages or settings
- ✓ Supporting students with autism who are non verbal





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## Switch Accessible AAC App

### **GoTalk Now**

- \$79.99
- Switch accessible AAC or direct access
- Scanning options
- Picture imports from photo library, camera or google search, or built in images
- Easy to use and apply
- Once cell, 4, 9 or 25
- Touch editor
- Text to speech or voice recorder
- Add core vocabulary in a bank for easy access
- Switch access through Attainment switch app on an alternate device or RJ Cooper Switch Interface
- Simple dynamic AAC (Augmentative and Alternative Communication) App for students who are non verbal





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## Switch App supporting alternate access

### Attainment Switch

- \$4.99
- Turn your iOS devices into a wireless accessibility switch to access your computer
- Communication with scanning enabled software software running on your Mac or PC
- Just download the free helper application needed for your computer from <http://switch.attainmentsoftware.com>



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## Sign4me

Communication

- \$9.99
- Signed English Translator
- Type in English phrases, sentences or words and the Avatar with sign back the translation
- Ability to slow down the speed of signed output
- Ability to bank phrases
- Over 11,500 words in databases
- For secondary users learning sign language to support students who are non verbal and communicating with sign (note - this is a signed english App – not ASL)



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## Strip Designer: writing motivation, scheduling etc

- ✓ \$2.99
- ✓ Use your own pictures to develop a comic
- ✓ Capture pictures of a sequence and make a comic
- ✓ Snap a picture for a science project and make a comic report
- ✓ Complete your daily journal with this motivating app
- ✓ Add text balloons, alter colours, text, fonts etc.
- ✓ Add stickers to enhance your comic's message
- ✓ Save your comic to your photo album and email to friends
- ✓ Fun for students who are visual learners and dislike traditional writing
- ✓ Utilize with students with autism to motivate and enhance written output with visual supports, design a daily schedule, write a report, make a presentation with Strip Designer – this app is similar to Comic Life on the computer



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## iOS5 Accessibility Settings

- ✓ Free
- ✓ Settings/General/Accessibility
- ✓ Speak Selection – highlight text onscreen and the iPod Touch reads the selected text aloud
- ✓ Able to adjust rate of speech feedback
- ✓ Extremely clear voice
- ✓ Also able to read text notes, Word documents on the iPod Touch etc.
- ✓



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## Prizmo \$9.99

- OCR scanning with Camera App
- Take a picture of the text document and scan it in your hand with the Prizmo App
- Have the text read aloud
- OCR in 10 languages
- No wifi necessary for processing image
- Many export options
- Engage students with decoding difficulties, attention issues



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## VoiceReader App \$1.99

- Text to Speech, high quality voices
- copy and paste any text from any document and have it read aloud
- 21 languages and 32 voices for iPod Touch, iPhone and iPad
- pause, export features, no internet connection required when using offline voices
- high quality text to speech, easy to utilize and apply
- Alternate access to text based information



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## vBookz \$4.99

- Text to Speech, high quality voices
- 30,000 free books or scan text, convert to epub and read aloud in vBookz
- capable of importing epub documents from any source and have it read aloud to the user
- adjustable rate of speech feedback
- modify visual access and contrast, font and size of font
- many languages supported
- enhances attention to accessing print via multisensory modalities



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## Cookie Doodle

Functional Skills & Fun!

.99¢

Make beautiful cookies on the iPad, iPod Touch or iPhone

Follow the recipes provided and check off as each ingredient is added

Use the rolling pin, measuring cup, sprinkles, mixer

Save your cookies to the cookie jar or eat them on the spot!

Interactive App

Extremely fun and engaging

Use to enhance functional skills, attending to task, task completion, enjoyment, or in the kitchen with real ingredients!

**CALORIE FREE!**





# Apps in Action for Autism Spectrum Disorders



Attention to Task &  
Language Development

## **I Like Books**

### **– 37 books in 1 App**

- Free
- Beautiful, simple, repetitive, easy to read books
- Will also read aloud
- Interactive, touch feedback
- Words are highlighted as read aloud
- Grasshopper Apps series
- For young students or emergent readers accessible in the classroom with mobile technologies – use with headphones



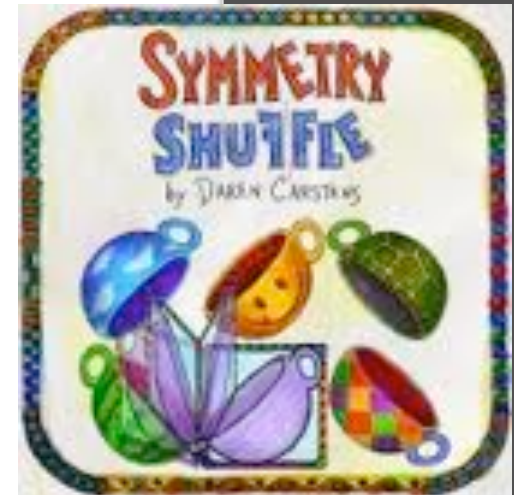
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Math & Perceptual Skills, Problem Solving

## Symshuffle

- \$1.99
- Challenging and visually pleasing visual problem solving App
- Line and rotational symmetry, spatial sense and problem solving
- Use for transitions, relaxation, visual spatial skill development, problem solving, predicting, social fun



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## WordFoto: Output, productivity, engagement, fun

- ✓.99¢
- ✓Take a picture or import from your photo album
- ✓Make a word list (maximum 10 words) and click a button and place the words over the image
- ✓Choose various styles including Classic Color, Gray, Comic, Blocky, Prankster, Howling
- ✓Fun, easy to use, motivating, engaging
- ✓For literacy, visual “poems”, visual journal, vocabulary development....



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## MapMe Canada

- ✓ 1.99¢
- ✓ Fun and easy to use Canadian geography App
- ✓ Learn facts about each province
- ✓ Recognize the shape of each province and test yourself with Puzzles and Matching games
- ✓ For both iPhone and iPad
- ✓ For visual learners

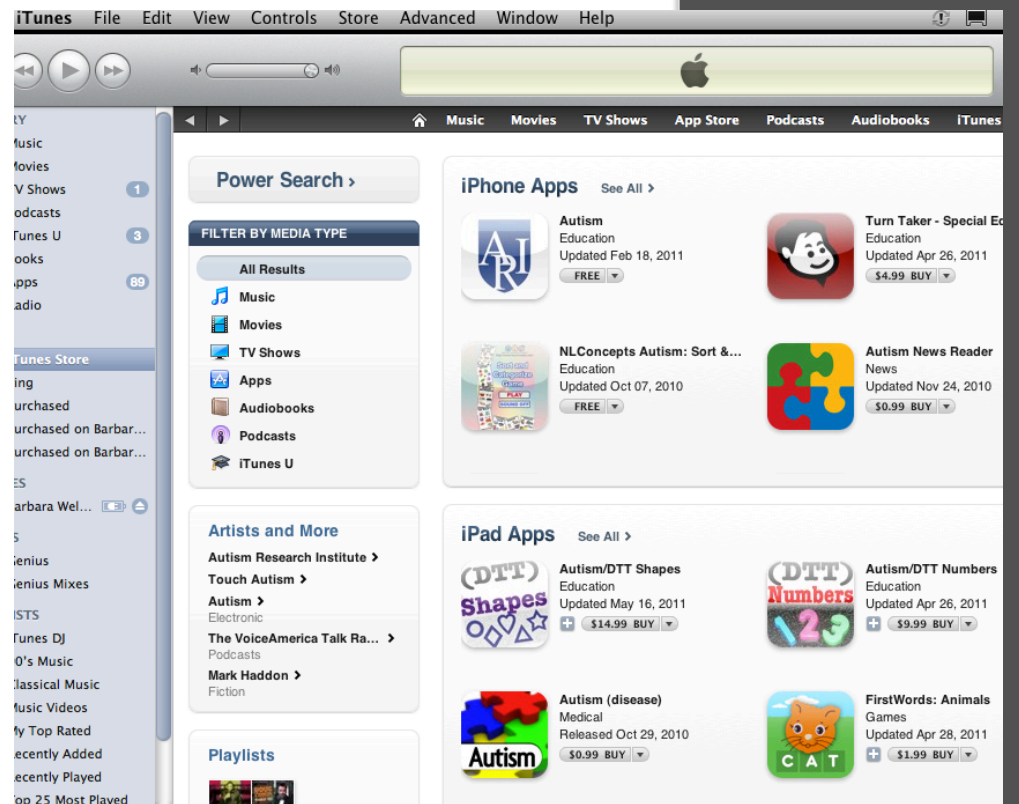


# Apps in Action for Autism Spectrum Disorders



## Autism Spectrum Disorder , the iPod Touch / iPad / iPhone & the iTunes App Store

### iTunes Store & Search for Autism



# Apps in Action for Autism Spectrum Disorders














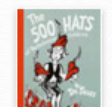
## Other Options for the iPod Touch, iPad a &/or iPhone

✓ On the iTunes Store

✓ Check out FREE Podcasts and VideoCasts on Autism

✓ Watch or listen them on your computer or download to your iPod Touch, iPad or iPhone

### All Podcasts for “autism”

	<b>Autism Research Institute</b> Defeat Autism Now! Webcasts Kids & Family <a href="#">SUBSCRIBE FREE</a>		<b>Autism Podcast</b> Michael Boll K-12 <a href="#">SUBSCRIBE FREE</a>		<b>Autism Insights (E</b> Laura Corby Medicine <a href="#">SUBSCRIBE FREE</a>
	<b>Autism One Radio - Speci...</b> Azcast.net Alternative Health <a href="#">SUBSCRIBE FREE</a>		<b>Autism Hangout Feature ...</b> Autism Experts Health <a href="#">SUBSCRIBE FREE</a>		<b>Autism Toolkit Pod</b> Julie Guy & Ann Les K-12 <a href="#">SUBSCRIBE FREE</a>
	<b>Living Well With Aut...</b> CLEARN Mary Fletcher Jones Kids & Family <a href="#">SUBSCRIBE FREE</a>		<b>Autism BR</b> Stan Goldberg Kids & Family <a href="#">SUBSCRIBE FREE</a>		<b>Autism One Confe</b> Azcast.net Alternative Health <a href="#">SUBSCRIBE FREE</a>
	<b>Autism Insights (MP3 Pod...</b> Laura Corby Medicine <a href="#">SUBSCRIBE FREE</a>		<b>Moms On Autism</b> Momsonautism.com Kids & Family <a href="#">SUBSCRIBE FREE</a>		<b>Bartholomew Cub</b> BC on Science Medicine <a href="#">SUBSCRIBE FREE</a>



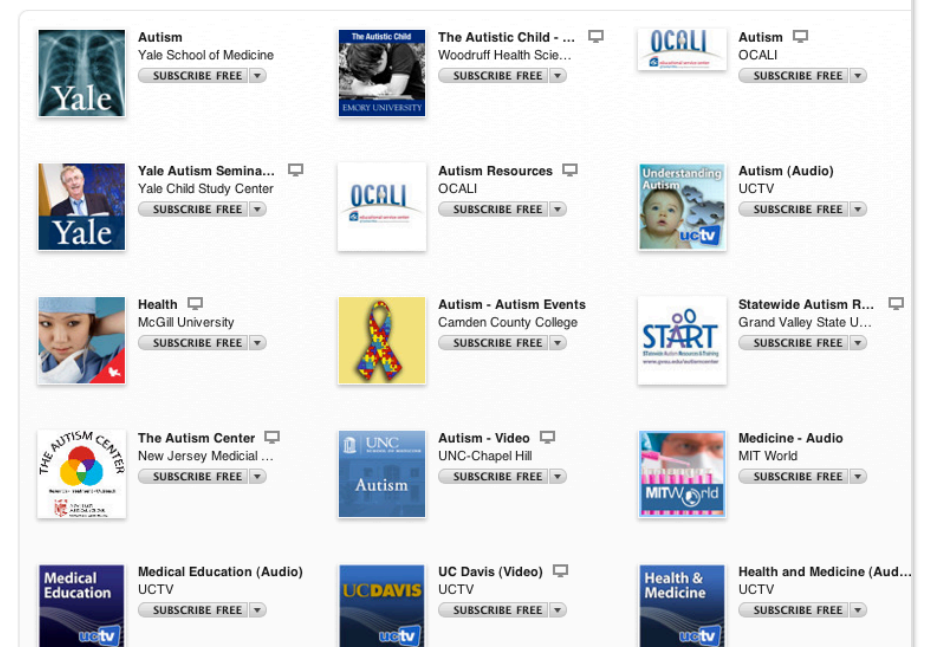
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## Other Options for the iPod Touch, iPad a &/or iPhone

- ✓ Free
- ✓ Search the iTunes store for “Autism” and/or “Aspergers”
- ✓ Check out iTunes U
  - ✓ Free lectures from Yale, MIT, UCTV...

### All iTunes U for “autism”



# Apps in Action for Autism Spectrum Disorders



## Other Options for the iPod Touch, iPad a &/or iPhone













✓ On the iTunes Store

✓ Check out Audiobooks on Autism

✓ Titles including Thinking in Pictures: Temple Grandin, Mother Warriors, Born on a Blue Day, To the Best of our Knowledge, Eye Contact...and many more

✓ Prices vary

### All Audiobooks for "autism"

 <p><b>The Curious Incident of t...</b> Mark Haddon Released May 15, 2004 \$11.95 BUY</p>	 <p><b>Born on a Blue Day: A Me...</b> Daniel Tammet Released Jan 29, 2007 \$17.95 BUY</p>	 <p><b>Thinking in Pictures: My</b> Temple Grandin Released Sep 29, 2009 \$20.95 BUY</p>
 <p><b>Mother Warriors: A Nation...</b> Jenny McCarthy Released Sep 23, 2008 \$11.95 BUY</p>	 <p><b>Healing and Preventing A...</b> Jenny McCarthy, Jerry Kart... Released Apr 09, 2009 \$16.95 BUY</p>	 <p><b>Animals in Translation:</b> Temple Grandin and Cath... Released Feb 18, 2005 \$22.95 BUY</p>
 <p><b>To the Best of Our Knowl...</b> Jim Fleming Released Aug 05, 2009 \$1.95 BUY</p>	 <p><b>Studio 360: Art and Autism</b> Kurt Andersen Released Mar 29, 2008 \$0.95 BUY</p>	 <p><b>A Life to Rescue: The T</b> Karen Michelle Graham Released Dec 10, 2010 \$2.95 BUY</p>
 <p><b>Not My Boy!: A Father, a ...</b> Rodney Peete, Danelle Morton Released Mar 16, 2010 \$17.95 BUY</p>	 <p><b>Autism: A Very Short Intr...</b> Uta Frith Released Jan 24, 2011 \$10.95 BUY</p>	 <p><b>Strange Son: Two Moth</b> Portia Iversen Released Dec 28, 2006 \$17.95 BUY</p>



# Apps in Action for Autism Spectrum Disorders



## Q & A

Visit our website for a list of future Apps in Action Webinars

### Future Webinars:

Apps in Action Enhancing Functional Skills for People with Autism **Nov. 16**

Apps in Action for Language Learning **Nov. 23**

Apps in Action to Enhance Social Skills for Children with Autism **Dec. 14**

*NOTE: if you can't make the webinar that night no worries, each registrant will receive a link to the recorded session & you can view it from anywhere, anytime, 24/7!*

*All proceeds go to the Assistive Technology Centre Society registered charity*

TO REGISTER:

[http://assist-tech.ednet.ns.ca/Assistive\\_Technology\\_Centre/  
AT\\_Training\\_Opportunities.html](http://assist-tech.ednet.ns.ca/Assistive_Technology_Centre/AT_Training_Opportunities.html)

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