Children's
TECHNOLOGY
REVIEW EXCHANGE

December 2017

Essay:
Recognizing "Seymour Syndrome"

LittleClickers:
Projection Mapping

Reviews:
Facebook's Messenger Kids, Feite Cats, Toca Life Pets, Snow Day... and more

Discussion:
Technology Enhanced Adult/Child Interactions, and the Elephant in the Room

On the cover: Snow Day by Sago Mini

Dotopedia
Elfkins Communication Robot
Fiete Cats AR*
Labo Halloween Paperman
Messenger Kids*
Mobo Puzzle*
Pai Augie - Coding Robot
Pegs
Seesaw
Snow Day*
Toca Life: Pets*
Virry Safari 2: Feel the Wild
We ARGH Pirates!*

Children's Technology Review
EDITOR'S CHOICE
FOR EXCELLENCE IN DESIGN
20 17

Denotes "Editor's Choice."

Children's TECHNOLOGY REVIEW

"Human relationships matter most." Chip Donohue echoing the words of Fred Rogers, during his recent talk at Dust or Magic. Watch the entire talk, at https://youtu.be/rVoGsO2LAX8.

CAN TECHNOLOGY ENHANCE ADULT/CHILD RELATIONSHIPS?
We feel that Facebook's new Messenger Kids, an iOS app reviewed in this issue, gives families a new way to increase both the quality and quanity adult/child interactions. Should you be concerned about Facebook's sticky information collecting process, however? Read our CTREX review and decide.

In the meantime, here are some of the key points about adult/child/tech relationships from Chip's talk, from https://youtu.be/rVoGsO2LAX8?t=20m23s. Technology can enhance relationships by:
- Inviting conversations (through texting, using publishing apps, or shared screen experiences).
- Creating a context for sharing, by turn taking or by providing a distinct role for each person. Chip reminds us that there's a good body of research that has concluded that more learning happens when experiences are used in a social setting, instead of in isolation.
- Creating opportunities for interactions that have "social contingency." (see Troseth et al, 2006); defined as when social partners share responses that are immediate, reliable, and accurate in content.
- Creating opportunities for co-viewing and adjacent viewing, which means other ways of sharing the screen experience. Adults might plan for when the screen is turned off, or involve themselves in the experience by asking questions like "tell me what's going on."

Finally Chip urged all adults to openly acknowledge the elephant in the room... that we all are absorbed by our own devices; and this attention can draw us away from our children.

ALSO IN THE NEWS:
"Steer clear of apps claiming to teach language to babies and toddlers, for example. Research clearly shows that kids learn language primarily from caregivers during social interactions, and screens can't trump real, human conversations." from "How to Choose Apps for Your Kids," NYTimes, https://nyti.ms/2ntYDyB

Dust or Magic

Save these dates!
www.dustormagic.com

March 25, 2018 • Bologna Masterclass Meet and debate current
technology with children's publishers at the world's largest children's publishing event.

June 1-3, 2018 • AppCamp The West Coast edition of Dust or Magic, at the Asilomar
Conference Grounds. $14280/seat.

5 (or so) sites & 10 videos
Projection Mapping

Read this column online, with links, at **www.littleclickers.com/projectionmapping**

Do you like to play with shadows? If so, you'll love projection mapping. That's when you use a computer projector to create a cool effect on a ceiling or building. Let's learn some more.

1. What is projection mapping? According to http://projection-mapping.org/whatis/ you learn that it's simply pointing a computer projector at something, to paint it with light. You can play a scary video on your house a Halloween, or make Santa's sled move across your ceiling during a concert. The possibilities are endless.

2. What do I need to get started? Two things: a computer (or tablet) and a projector. Also handy -- a dark place, a light colored surface, extension cords, graphics adapters and permission from your neighbors. Remember that projection mapping can draw a crowd, so you'll want to make sure that everyone is safe. Read more about the history of projection mapping here: bitly.com/2ksPhCc.

3. What software do I need? There are many specialized programs that let you carve up your space so that the light matches your target. See http://projection-mapping.org/software-2/ for a good list. You can also use common presentation software like PowerPoint or Keynote. It helps to use highly contrasting images. Experiment with the slide transitions.

CHECK THIS OUT!
1. The Seven Wonders of the World, in VR. https://nyti.ms/2BBS145 This single link is your ticket to places like the Great Wall of China, in VR. If you don't have a Google Cardboard headset, don't worry. You can look around with a swipe or with your mouse.
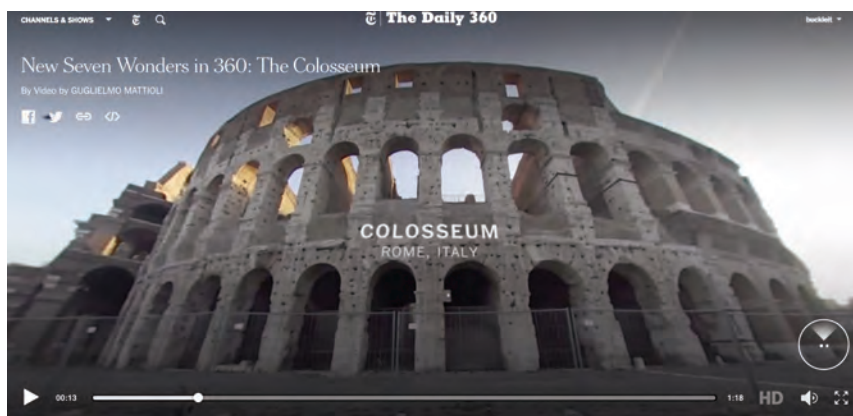
This image was made using a regular 300 lumen projector and Keynote. It worked like a charm.

2.

Projection Mapping on YouTube

Want more? Here's a video playlist that go along with this column
https://www.youtube.com/playlist?list=PLcBVHzUUEKwkyIe_rRgNdH78Qnw5E--b5

Recognizing "Seymour Syndrome"

By Warren Buckleitner

Seymour Papert was a gifted individual. I mean no disrespect to his legacy by this article. I've seen how his ideas about children and coding have misled well-intentioned adults in the past. Fast forward 40 years, and history is repeating itself.

From reading Seymour Papert's 1980 book, Mindstorms, we learn that he was fascinated by gears as a child. "*Playing with gears became a favorite pastime. I loved rotating circular objects against one another in gearlike motions and, naturally, my first 'erector set' project was a crude gear system.*"

Seymour Papert, From Wikipedia

Papert wanted every child to have such mindstorms, which led him to Logo; an early programming language.

Throughout the 1980s and early 1990s, many educators suffered from "Seymour Syndrome" -- meaning an idealistic optimism that coding was the key to a better future. There was a rush to enroll children in coding camps. I know this because I was one of the teachers. I started calling all the hype "Seymour Syndrome" people trying to get young children to code, before they can understand what is going on.

Today's market has once again flooded with commercial coding-related apps, robots and games being sold with the promise that they can promote science, technology, engineering and math (STEM). Cubetto is one of these.


The symptoms are in the marketing materials that name-drop Montessori, and claim that time with this rolling cube will "teach a child to code before they can read." Cubetto's coding means finding six AA batteries and plotting out the course of a slow moving rolling cube on a grid. You do this by laying direction tiles on a progress line and pressing a transmit button. I shudder to think that teachers are spending time attempting to "teach" children how to "code" thinking that this actually as something to do with "teaching" children how to "code" to fulfill a STEM objective.

Students of child development know that preschool and early elementary age children learn best when they are actively involved with hands on, concrete materials. Papert's teacher -- Jean Piaget called the years from 3 to 7 "concrete operations" for a reason. The motions of the cube should be directly linked to the command, or better yet, the child should be in the maze, for a first-person point of view.
'
Good pedagogy in the early years should be filled with building with blocks, playing at the water table filling and emptying containers, moving around (a lot) and testing language abilities on peers. If you want to use technology, get them an iPad and let them explore some responsive Sago Mini apps. Spend your $220

(the cost of a Cubetto) on several a low cost, durable RC vehicles that deliver a responsive, cause and effect challenge. Let the direction variables wait until the child is eight- or nine-years of age, when they can use a program like Scratch to build an entire program out of clusters of commands.

As far as the "coding" part, save your pedagogical ammo for materials that match a child's developmental level.
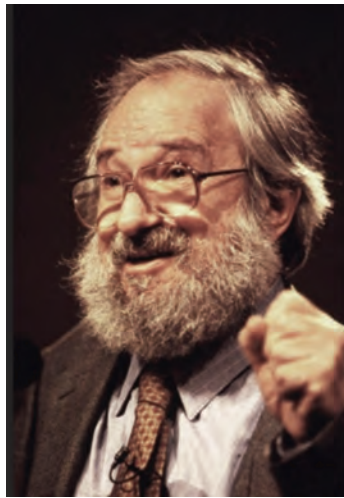
REVIEWERS NOTEBOOK
Some notes on design from the reviews in recent issues.

If a new robot is harder to turn on than an electric tooth brush, it probably will become dust.

I recently had two young testers (9 and 11) who wanted to play with Cue by Wonder Workshop. I thought it would be a win, because it was charged and I had already downloaded the controller app on my phone (the iPad that had the controller wasn't around).

Upon starting the robot and the app, we were given a message that the robot had to be updated -- a 15 minute process.

After 20 minutes, the update was complete, and boys were once again excited. Unfortunately, we had to create an account to use the robot.

After another 10 minutes of trying to enter upper and lower case letters and numerals on a tiny keyboard, we gave up. The kids left, disappointed. Cue was a fail.

Augie from Pia was worse. Syncing requires pushing two physical switches on the robot bottom in the same direction, and then switching Wi-Fi networks on the device you are using. This is far more complicated than setting up an Amazon Echo or Google Home. Selecting the "help" option starts an endless loop, perhaps because the app is trying to pull content from the Internet, through a network that it just asked you to turn off.

It's good if a toy challenges you. But it has to be for the right reasons.

Feature Reviews and New Releases

Here's an alphabetical listing of both the feature reviews (with ratings) and the new and future releases. "Entry Date" refers to the date we first learned of the product.

Dotopedia

Based on animated TV show, this is an interactive information hub. Children can upload their own contrent (pictures, audio clips and stories). Content includes 200 articles and the ability to add stickers to your photos. One device supports multiple accounts, which means siblings, classmates or friends can build their own unique Dotopedia.

Details: CBC, http://www.cbc.ca/. Price: $free. Ages: 6-12. Platform: iPad, iPhone, Android. Teaches/Purpose: science, reference, language, reading. Entry date: 12/6/2017.

Elfkins Communication Robot

The non-rolling animated figurine that is designed to "enable safe, screen-free communication between children and their loved ones." It works with an iPhone 5 or newer.

Two children with Elfkins can send messages to each other (like Wi-Fi Walkie-Talkies) with prior parental or administrator approval. You can set do-not-disturb periods using the app. Powered by rechargeable batteries.

Details: Empath Interactive, Inc., www.elfkins.com. Price: $150. Ages: 3-up. Platform: iPad, iPhone. Teaches/Purpose: speech, communication. Entry date: 12/6/2017.

Fiete Cats AR

Are you new to AR (Augmented Reality)? Here's a good starter experience that works well on a standard iPad (with iOS 11 installed).

First you choose from three animated kittens -- whom you can name. Next, you point your camera at a well lit, flat surface. Poof -- a kitten appears. We liked how the kitten can jump from one surface in the room to another (e.g., from the table to the floor). Health and happiness meters tell you when your cat needs a bath or wants to eat/play. And yes, there is a litter box.

Need to know: As AR apps go, this one is easy to use. But it has limited play value. Your cats don't develop over time, and other than fur color, there's not much difference between the cats. And if you are expecting to meet Fiete (the sailor), you might be disappointed. He does not appear in this app.

Details: Ahoiii Entertainment UG, www.fiete-app.com. Price: $1.99. Ages: 4-9. Platform: iPad, iPhone. Teaches/Purpose: augmented reality. Rating (1 to 5 stars): 4.3 stars. Entry date: 11/27/2017. []
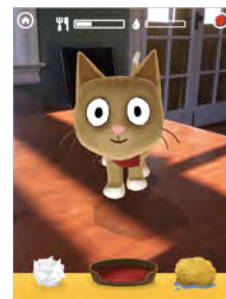
		86%
Ease of Use	8	
Educational	8	
Entertaining	9	
Design Features	9	
Good Value	9	

Labo Halloween Paperman

Design exotic Halloween-themed characters by mixing and matching faces, eyes, beards, eyebrows, noses, glasses, horns, mouths, bodies and limbs.

Once you've picked and positioned your elements using the easy drag and drop menus, you can color each part with a tap, and also add a paper texture look. Characters are auto-saved in a gallery. This app looks great and is generally easy to use; there is no reading.

Need to know: The navigation is sometimes unpredictable. For example, you have to complete the a certain number of parts on one part before the app lets you advance. But you soon figure this out.

Details: Labo Lado Inc., www.labolado.com. Price: $1.99. Ages: 4-8. Platform: iPad. Teaches/Purpose: halloween, art, creativity. Rating (1 to 5 stars): 4.1 stars. Entry date: 11/14/2017. []
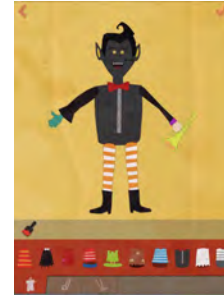
		82%
Ease of Use	8	
Educational	9	
Entertaining	9	
Design Features	7	
Good Value	8	

Messenger Kids

Combining ease of use and power, this app -- which functions outside of Facebook, lets children (under 13 years-of-age) share text messages, photos, animated gifs and videos with (hopefully) parent-approved Facebook contacts.

The app opens a new COPPA (Children's Online Privacy and Protection Act) compliant service; and a powerful social pipeline so that younger family members can communicate with others who are on Facebook. In fact, if you currently use a Facebook account, you are already using Messenger Kids, because it it piggybacks on existing Messenger features.

Here's how it works. After you download the app on your child's iOS device (for iOS 8 or newer), you must "authorize this device." If you don't, you can't use the app. This means you must log in using existing Facebook credentials. This does not give your child access to your Facebook account -- it merely lets this additional device that could be operated by a child, tap into your Messenger stream. By typing in your user name and password, you also grant the app permission to make the connection. You, as the holder of the account (the person who knows the password) can now grant access to others that you want in your child's network. In this way, the holder of the managing Facebook account holds the keys.

The paranoid won't like Messenger Kids because you are required to grant Facebook, Inc. access to a lot of new information -- including your child's communications, any content shared (including videos and pictures), things like high scores on games and device information. In addition your child's name and status will be visible to your other friends who are linked on Messenger accounts. So this app gives Facebook a way to start building a social profile of a child younger than 13, using your permission granting ability. This information can also be use by the "Facebook Family of Companies" who aren't clearly defined. Other interesting points from our testing.

• This is a big app (a 223 MB download).
• It's global -- in 33 languages.
• Messages don't disappear and can't be erased (like snapchat) and they also can't be hidden, in case a parent wants to go back through a history.
• No language filters are used. We were able to set up an account for our dog, and have her swear at us.
• There are no ads or in-app purchases presented to the child, and the app is free to download for as many children as you like.
• There's a large set of stickers, GIFs, frames and emojis that can help children express themselves without print.
• The camera icon lets you quickly capture a photo or video, and it is possible to mix in fun AR effects, like masks or hats.
• For children without a data plan, Messenger Kids works over a Wi-Fi connection. No phone number is needed.
• Creating a Messenger Kids account for a child does not create a Facebook account for them.
• Any person with an existing Facebook account can control their child's contact list and can remove contacts at any time. So it is possible that a child could set up their own shell Facebook account to grant permission to themselves.
• Children can report or block contacts and report inappropriate content.

The bottom line? This is a welcome addition for any Facebook using family. It combines ease of use with powerful communication features, and no data plan is required.

No system is completely foolproof, and that it is possible for a child to create a fake account to grant permission to him/herself. Learn more at more information, visit http://messengerkids.com.

Details: Facebook, Inc., www.facebook.com. Price: $free. Ages: 9-11. Platform: iPad, iPhone. Teaches/Purpose: social networking, language, literacy, parent/child interaction. Rating (1 to 5 stars): 4.9 stars. Entry date: 12/5/2017. []

Ease of Use	9
Educational	10
Entertaining	N
Design Features	10
Good Value	10

98%

Mobo Puzzle

Good for a non-reader, this simple puzzle sorting experience Five collections of simple matching tasks. Each challenge moves the story A free to play app with no scoring or time pressures. No in-app purchases, no ads. Designed for toddlers age 1.5 - 6 years old. The graphics are less than professional and the challenge is sometimes confusing.

Details: Mobokids, www.mobokids.com. Price: $free. Ages: 2-6. Platform: iPad. Teaches/Purpose: narrative structures. Rating (1 to 5 stars): 4.2 stars. Entry date: 11/28/2017. []

		84%
Ease of Use	8	
Educational	8	
Entertaining	8	
Design Features	8	
Good Value	10	

Pai Augie - Coding Robot

Combining three sexy topics into one product (AI, robotics and coding) this $200 rolling robot is designed to "pair coding with augmented reality." You must first pair the robot with your phone or tablet by downloading the app. Sadly this is not an easy process. It involves switching Wi-Fi networks and experimenting with some poorly marked toggle switches on the bottom of the robots. It's always sad when the debugging involves getting a product to work. Once it is synced with your tablet, you can either freely drive your robot around or program movements and behaviors using Google's open source Blockly code.

A video function lets you record sounds and movies, which can be viewed on your phone or tablet. Each feature is introduced by video tutorial. Modes include structured programming tasks (executing the right commands to move to the next level) and free play-programming with Blockly.

Need to know: Many features are similar to Dash and Dot from Wonder Workshop, with the exception of the AR, that is delivered with the app.

Details: Pai Technology, . Price: $200. Ages: 5-12. Platform: iPad, Android. Teaches/Purpose: robotics, programming. Rating (1 to 5 stars): 3.4 stars. Entry date: 9/17/2017. []

		68%
Ease of Use	6	
Educational	7	
Entertaining	7	
Design Features	7	
Good Value	7	

Pegs

We always like to see it when a traditional board game comes to the touch screen. In this case, your job is to swipe left, right, up or down to move colored shape "pegs" on a grid. The challenge is to see how quickly you can clear the board. The game was inspired by Peg Solitaire. There are 30 that range from easy to hard.

Need top know: Testers wanted more hints on the first level.

Details: White Pixels, www.whitepixels.com. Price: $0.99. Ages: 10-up. Platform: iPad. Teaches/Purpose: logic, memory. Rating (1 to 5 stars): 3.7 stars. Entry date: 11/14/2017. []

		74%
Ease of Use	6	
Educational	9	
Entertaining	8	
Design Features	7	
Good Value	7	

Seesaw

This is a subscription-based online student portfolio system that some at NEAYC 2017 have likened to a facebook for education.

The clean interface makes possible for even young children to photograph a project and upload it to his or her class account, where it can be viewed by a teacher, and shared with family members.

Parents or teachers can create a free account to access basic features, but premium features, such as the ability to give student feedback or track a child from year to year, require a paid subscription. The service is multi-platform, so you can download the app to see a child's work from your phone or tablet. Features include built-in content creation tools for photo editing, and the ability to record video or your voice. The service is integrated with Apple and Google apps. Children can login using a traditional password system or (if they can't read or type) using a QR code. An alert system can send updates to parents. There are 50+ languages.

What happens to your child's work after the subscription ends? According to the SeeSaw FAQ page, no work is erased, but features are frozen. You can't edit or add any Skills, Private Notes, or Posts to the Private Folder. You can upgrade your account later however. District wide options are sold on an individual quote basis. Costs are roughly $10/year/student.

Details: SeeSaw Learning, https://web.seesaw.me/

. Price: $120/year. Ages: 5-up. Platform: iPad, iPhone, Android, Chrome, Internet Site, Windows, Mac OSX. Teaches/Purpose: a student portfolio system. Entry date: 11/21/2017.

Snow Day

Does the world need an other swipe-to-move driving app? Yep, especially if it involves a theme that every child dreams about.

Available as an option in Sago Mini World as well as a stand-alone app for $2.99, Snow Day recycles the play pattern used in Sago Mini Road Trip. You start by choosing one of 16 holiday-themed sleds (including a hot dog), and populate each with one of five Sago Mini animal characters. Next you test different sled runs. As you move, you can swipe up to launch your sled into the sky (say, to pop balloons), or stop to visit different creativity stations. There is a lot of reused content from other apps, but the themes are new. This app supports multi-touch and is a great sharing experience, and there's enough variance in the sledding runs to keep things interesting. The app works without WiFi or internet, and there are no ads or worrisome content.

Need to know: The app is available to first to paid subscribers of Sago Mini World, and will be available later as a stand alone app for iOS, Google Play and Amazon.

Details: Sago Mini, www.sagomini.com. Price: $2.99. Ages: 2-5. Platform: iPad, iPhone, Android, Kindle. Teaches/Purpose: fine motor skills, math, counting up to four, 1 to 1 correspondence, airports, planes. Rating (1 to 5 stars): 4.9 stars. Entry date: 11/27/2017. []
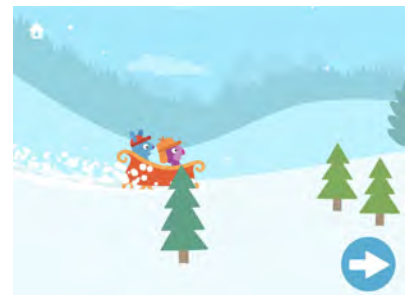
Ease of Use	10	98%
Educational	9	
Entertaining	10	
Design Features	10	
Good Value	10	

Toca Life: Pets

This Toca Life app is packed with all kinds of pets -- 124 to be exact. They're hiding everywhere: behind doors, on shelves and in fish tanks. We noticed they poop a lot; and that you can play with the poop, a process that might be disturbing to some. You can even feed the poop to the people. While no animals appear to be harmed in this app, it is possible to put your kitten on a hot stove, or your dog in the freezer. Hence the curse, and blessing of an open-ended experience. Unlike some of the other Toca Life apps, it is not possible to move from one area to another through a door or elevator. Instead, you must move back to the main menu. There are five locations: pet park, pet hotel, veterinary, pet shop and breeder's bungalow, and all items can be moved to any location. Content includes 23 new characters. You can bathe muddy pets and get them clean again, or pretend to be a vet and care for sick or injured pets. The pets can be dressed up in fun hats — hats stack on pets stack on hats.

By building an agility course you can exercise your pet. Pets include a pet rock and sloth bat that were inspired by drawing and photos from fans.

Petter Karlsson, Play Designer. "In Toca Life: Pets you pick which pets you want to play with in your life and decide their stories. As with all of the apps in the Toca Life series, Toca Life: Pets puts kids in the director's seat to make up their own stories." This includes the ability to record and save short narrated puppet shows. The bottom line -- this is another excellent addition to the Toca Life series.

Details: Toca Boca, http://tocaboca.com/. Price: $2.99. Ages: 6-9. Platform: iPad, iPhone, Android. Teaches/Purpose: creativity, spatial relations, language, representational play. Rating (1 to 5 stars): 4.8 stars. Entry date: 12/4/2017. []

		96%
Ease of Use	9	
Educational	9	
Entertaining	10	
Design Features	10	
Good Value	10	

Virry Safari 2: Feel the Wild

Designed specifically for Oculus and Gear VR (and not Playstation VR), this is the second Savannah exploration title from Fountain Digital Labs. It is designed to immerse you in the lives of real animals to help you better understand issues related to conservation. The setting is the Lewa Wildlife Conservancy in Kenya, and the content includes elephants, lions, zebras and rhinos (there are seven in all). This release includes a "Mood-o-Meter" which allows you to monitor changes in your attitude as you explore. Need to know. You can also subscribe to three live web cameras installed at the Lewa Wildlife Conservancy and check in on the animals in real time.. at any time of the day or night. The live cameras have a 15 minute free trial period after which subscriptions are $1.99 (USD) per month or $3.49 (USD) per month. This is a stand-alone product coming to Oculus Rift for $9.99 (USD) and Gear VR $4.99 (USD) on November 30, 2017. See also Virry Safari: Wild Encounters. Visit virryvr.com and virryapp.com.

Details: Fountain Digital Labs, www.fountain-digital.com. Price: $10. Ages: 10-up. Platform: . Teaches/Purpose: ecology, Africa, animals. Entry date: 11/28/2017.

We ARGH Pirates!

Fun, goofy and full of a variety of logic challenges, this beautifully illustrated adventure contains eight levels that effectively challenge your problem solving skills. While not perfect, this app is the best overall problem solving apps we've reviewed so far this year.

You help a crew of pirates move through each area of a treasure map, defeating challenges presented by a variety of enemies. You aim a bow and arrow to shoot down coconuts, Angry Birds style, or swipe to get your ship over rocks. In one screen, you shoot barrels at a giant squid. Each level has some type of logic or memory puzzle. The map/menu makes it easy to jump around in the game, although it is not possible to reset the app, and we couldn't find any options to control sound or adjust levels. No reading is required. The audio nicely accompanies the creative challenges.

Need to know: There's no shortage of cartoon violence in this app, and some of the characters may have stereotyped appearances typical of the pirate genre. We'll be curious to see what the KIDMAP reviewers have to say.

Details: Avokiddo, www.avokiddo.com. Price: $3.99. Ages: 6-10. Platform: iPad, iPhone, Android, Kindle. Teaches/Purpose: logic, memory, classification. Rating (1 to 5 stars): 4.8 stars. Entry date: 11/3/2017. []

		96%
Ease of Use	9	
Educational	10	
Entertaining	10	
Design Features	9	
Good Value	10	