Children's TECHNOLOGY Review™

Lessons from AppCamp

App Crayon
Baby Learns Colors
Brush of Truth
Butterfly HD
Color Dots
GlowFizz
Harry Potter for Kinect

Kids Crosswords
Kindergarten Addition
Ko's Journey
Locomaster- Lucas'
   Crazy Machine
Mario Tennis Open
Math Doodles*
Monster Mutt Rescue
Monster Physics*
Nerf Firevision Sports
   Football
Nick Jr. Draw and Play*
Pet Factory

Pete's Robot
Piano Dust Buster
Princess Fairy Tale
   Maker*
Puzzles 'N Coloring - Sea
   Life
Ravensburger
   Augmented Reality
   Puzzle + Video Effect
Salt Water Fuel Cell
   Monster Truck
Solidoodle 2nd
   Generation 3D Printer

Spirit of Math Drills
Squiggles
Very Cranky Bear, The
wipEout 2048
World of Physics: Fluids

* Donotes an "Editor's Choice" product, earning a 4.3 or higher rating.

CHILDREN'S TECHNOLOGY REVIEW
EDITOR'S CHOICE
20 12
FOR EXCELLENCE IN DESIGN

AppCamp Notebook

Last week was Dust or Magic AppCamp; the third in the post-iPad age. Fourteen bags of marshmallows generated 579 tweets, each captured by the data-loving Scott Traylor. For those of you who missed this year's AppCamp, no worries. Here's a summary. Make yourself a s'more and watch these videos.

Theo Gray brought along an interesting element sample: Titanium, in the form of a turbine blade from a large jet engine.

THE CHILDREN'S APP SPACE IS MATURING, BUT STILL HAS A LONG WAY TO GO

- The "State of the App" panel at http://youtu.be/HzYaonRsd5E is a good place to start your tour of AppCamp. Don't miss Robin Raskin's comments about the cloud at 15:06 (See those sunburned cheeks? Robin managed to fit a Kayak ride in the Monterey kelp beds that morning).
- Carley Schuler makes research fun with her examination of some of the best selling children's apps http://youtu.be/U2rsy6vU0ec.
- Chip Donohue gives the designers a crash course in DAP (Developmentally Appropriate Practice) http://youtu.be/ns0QhjkXjWk.
- Michel Kripaneli gives an important rant at 12:38 in http://youtu.be/EWDUjXtj6Kg called "An Open Letter to Apple." I think he raises some very good questions, such as "why are we still buying apps from a music store?"
- Another must-see event is at 29:30 in http://youtu.be/tn8HGorHR1g where Barbara Chamberlin turns her iPad into a nightclub act using Smule's Magic Piano , as part of her talk "Grand Challenges of App Design." Chamberlin, a former stand up comic and current professor of educational psychology, shows that she still has her timing.

WANT TO MAKE A MAGICAL CHILDREN'S APP? DON'T MAKE IT FOR CHILDREN

Theo Gray didn't sit down one day and say "I'm going to make an award winning children's app" when he partnered with Max Whitby to make The Elements. The reason children (and adults) continually launch this large and expensive app can be found at 37:42 in http://youtu.be/9bVsGYbDZQQ. Theo sets the tone for AppCamp when he says "Kids are really smart. They want to learn. If you give them something meaningful, they will become engaged." A child thinks "Teach me, so that I can become a grown up.... that's what a kid wants more than anything else in the world. To grow up and take their place in the world." Another talk with special significance to educators is by stay-at-home dad Daren Carstens, who puts himself in a child's shoes by subjecting himself to the process of learning something new and very hard: playing the cornet. Put in some earplugs and watch http://youtu.be/FUV-8vdaL_o (and keep your finger on your volume). For more analysis about this year's AppCamp, see Chip Donohue's "Camping With The App Makers" on page 5, or the AppCamp 3 archive page at http://bit.ly/LjE9dO.

Moth Myths and the Death of an iPod Touch

In this months LittleClickers we tell you how to hunt for the elusive Luna Moth on page 3. On page 4, Kindergarten teacher Chris Crowell talks about the consequences of a dead battery on his well used iPod Touch.

MYTHS ABOUT MOTHS

Summertime is a great time to hunt for the giant green Luna moth. But it also brings up some common questions. Where do they live? What's the difference between a moth and a butterfly? How do you know what they look like? Here are some answers!

1. I captured an amazing moth. What kind is it?
Take a picture and upload it at the Moths and Butterflies site http://www.butterfliesandmoths.org where it will be identified. You can also browse a database of the similar moths, and see a map where they have been spotted.

http://www.fcps.edu/

The giant Luna Moth (above) is found in the East coast of the USA according to the map, below. Luna moths live in heavily forested areas.

2. Are moths and butterflies the same?
No, according to the David Hembry of the University of California at Berkeley, http://bit.ly/KHxCuh butterflies generally have bright colors and fly during the day. Moths are bigger and have antennae that look like brushes.

3. What is a lepidopterist and why should I care?
Do you love butterflies and moths? Visit http://www.lepsoc.org and you can join a society of other people interested in the study of the thousands of butterflies and moths classified as "Lepidoptera." If you sign up for $20, you'll even get a net.

4. T/F Moths, not butterflies, are attracted to bright lights.
Generally true. Moths fly at night, butterflies don't. At http://earthsky.org/earth/why-are-moths-attracted-to-flame you learn that moths – and many other flying insects – are probably more disoriented by a close light source, which confuses them.

5. T/F You can ruin a moth's wing by touching it.
This is a myth, sort of. While it is not good to touch a butterfly or moth, a moth's wing is designed to lose tiny scales, which look like powder. But the moth can still fly. Read more at http://bit.ly/L3djpz.

6. T/F. If you feed a Luna moth some sugar water it will live longer.
False. A Luna moth has no mouth! At http://www.bugfacts.net/luna-moth.php you learn that the Luna Moth only lives for about a week, so if you spot one, you are very lucky. It flies using energy it stored up when it was a giant worm.

APPLICATION

Attract a moths to your back yard at night. At Grandparents.com http://bit.ly/HNC2gn you can learn how to make a recipe of sweet, sticky "moth broth" out of stuff like brown sugar and a ripe banana. Next, you paint a tree with the stuff, and come back at night with a light. Hopefully, the tree will be covered with giant moths!

Set up a butterfly tent. Every year in Chris Crowell's Kindergarten class, he sets up a tent. It's not to go camping. It's to keep butterflies which come from worms that he buys at http://www.insectlore.com (http://bit.ly/KlLQ6U). For $15, you can get about five caterpillars.

You Tube LittleClickers YouTube Playlist: Moths

http://www.youtube.com/playlist?list=PLB328A0B1239CB3A8

Small and Mighty— It Served Us Well

Death *of an* *iTouch*

by Chris Crowell

They say you don't know how much you miss something until you no longer have it. Such is the case of my shiny iTouch, which slid into a permanent coma last week. The cause? A weak heart, otherwise known as a battery that could no longer hold a charge, even for a few seconds, and even when plugged in.

Born in 2010 in the first week of September in a union between Apple and Foxconn, our iTouch was one of the very first 4th generation editions (with two cameras) to be produced. After a year of service by CTR and in Mediatech, it was put into full time use last fall in my Kindergarten class. I had orginally thought I would use it to supplement my two iPads, but quickly found that my pocket felt empty if it wasn't there. It was both a backup and a supplement to my iPads, especially since I had figured out how to air-sync new apps and photos.

My students helped me discover that the small screen on the iTouch actually is preferrable at times to the much larger iPad. Their small fingers were drawn to the small screen (some called it an iPhone). They seemed to move in and out of apps faster, and seemed to like to share the iTouch with a friend. Here are some examples.

- **Morning bus duty**. Two sleepy kids are in the gym, just sitting silently on the bleachers, not talking. I'd say "I have some new games that just appeared on my iTouch. Would you like to try them?" Within a few minutes they'd be working together cooperatively on an app like Motion Math or Magic Piano. Thanks to the iTouch, I could turn bus duty into math or music enrichment.
- **Child management prevention.** Any experienced teacher knows that busy, engaged kids get into less trouble. My app-heavy iTouch was another way that I could keep children engaged. Even if I didn't need it, I knew I had the option.
- **In the electric area.** I keep my tablets in a part of the room I call the Electric Area. This is a place where children are given their choice about what type of device they use. This is where I realized that the small iTouch screen sometimes was preferrable at times to the larger iPad. Some activities (not all) seem more fun on the smaller screen.
- **A less-obvious way to capture teachable moments.** During a fire drill early in the year, I wanted to record my student's hallway behavior as they moved outside. I didn't want to use the iPad because it was too big, not to mention that I didn't have it in my pocket. I quietly fished my iTouch out of my pocket and recorded my children as they moved into their assigned position. Later, I synched the video to my laptop and we watched the video together, creating an ideal setting to discuss hallway protocal. It worked like a charm. Too bad I didn't have my AppleTV working!

Why not just replace the battery?

Certainly one of the most controversial technology design decisions ever made in the history of gadgets, was Apple's choice to solder the batteries inside the device. Permenantly. So when the battery dies, so does the iPad or iPod.

You can get your iPod "repaired" with a fresh battery for $79, at http://bit.ly/olKbTN. You can try it yourself at http://bit.ly/wVq3Y2 but this process requires special tools and soldering, and is not for the faint of heart.

The lesson for me: Don't underestimate the power of the small form factor of the iPod Touch. Think of it as a mini-iPad that you can fit in your pocket. When I broke the news to my class that the iTouch battery would no longer hold a charge, one of my students asked if he could use my new iPhone instead. Sorry I said. That's where I draw the line.

Camping With The
App Makers

by Chip Donohue, TEC Center Director, Erikson Institute

It was exciting and inspiring to "camp out" — at this year's Dust or Magic AppCamp—with a group of children's app developers. These are individuals who are pushing the boundaries of technology, tapping the affordances of the multi-touch screen, and attempting to develop content to support healthy development and learning. This is not an easy task, and clearly there is no one recipe to follow. But, some common ingredients began to emerge over the three days we spent together at Asilomar in Monterey California. I came away from my first App Camp experience impressed by the generosity of the developers who openly shared the indicators of quality in their apps and talked about essential ingredients in quality digital media.

Lisa Guernsey, who blogs for Early Ed Watch, and is the author of Screen Time (http://www.lisaguernsey.com) reminds us of the importance of considering the three "C's" – child, content and context – when creating, selecting and using digital media for children. As I listened to the presentations, app demos, mealtime conversations, and the ideas being shared around the campfire while making s'mores, I heard other essential "C" words that connect child development with principles of quality in children's media. Words like control, choice, creativity, creation, communication, conversations, cooperation, collaboration, consequences and a whole string of "co's" including co-viewing, co-interacting, co-engaging and co-creating.

I was inspired by Theo Gray's "E" words - enlighten, entertain, enable, engage, and empower. Watch his presentation here http://youtu.be/9bVsGYbDZQQ

Daren Carstens, of Carstens Studios, added another essential "E" word for everyone who works with or on behalf of young children – empathy.

And, I've been thinking about the implications for design and user experience of levels of digital play described by Bjorn Jeffery of Toca Boca – active, make-believe, manipulative, creative, and learning. Watch http://youtu.be/O13mDgldgGg.

We also identified a number of gaps that developers, educators and parents need to consider, including the App gap issues of access and equity, differences between an app that teaches and an app that enables a child to learn, the gap between a child's imagination and the affordances. There are other gap -- between passive and active; safety and risk; attraction and distraction; drill-and-kill and open-ended; solitary and social, and the gap between extrinsic rewards and intrinsic motivation.

In my presentation, Apps4Dap http://youtu.be/ns0QhjkXjWk I shared key messages from the new NAEYC/Fred Rogers Center Joint Position Statement on Technology and Interactive Media as Tools in Early Childhood Programs (download PDF here: http://bit.ly/AD2Lrl) and highlighted principles from Fred Rogers Center Draft Framework for Quality in Digital Media for Young Children.   I connected these two documents to Developmentally Appropriate Practice (DAP) – the idea that teachers, parents and app developers need to consider the whole child and each individual child, including age appropriateness, developmental level, individual needs, interests, abilities, learning preferences and dispositions, when designing or selecting digital media for children. Not an easy task, but kindergarten teacher Chris Crowell showed us how it's done, http://youtu.be/KNL0YIXH8uc, along with Barbara Chamberlin http://youtu.be/tn8HGorHR1g, and developers from Toca Boca, Duck Duck Moose, Noodle Works, Oceanhouse Media and many others, who generously shared their "secret sauce."

I posed the questions, "How DAP is your App?" and "How big is your DAP gap?" and then shared ideas about how to "Put more Dap in your App."

- Be intentional about your intent – Know why you're designing an element, user experience or feature into your app.
- Attract instead of distract – The younger the child the fewer the distractions and the simpler the attractions.
- Invite co-viewing, co-creating and joint media engagement. Multitouch screens offer an invitation to children and adults, and to children and their peers, to play, explore and learn together.
- Enable "dialogic apping" by baking prompts and opportunities for adult/child conversation, questions and imagination into your app recipe.

- Nudge parents and teachers to extend the learning – Daniel Donahoo (who skyped in at one point) encouraged developers to "leverage a greater level of engagement and activity between parents and children."
- Take advantage of what happens when the device is turned off – Fred Rogers said, "TV may be the only appliance that is more useful after it is turned off." Let's help adults and children connect on screen activities and experiences to real life opportunities away from technology.
- Never settle for "good enough" when it's for children – Enough said.

In early childhood, relationships are at the heart of everything we do and believe. So, being intentional about creating, inviting, prompting and encouraging interactions as part of interactive digital experiences seems like a worthy challenge and opportunity to developers, educators and parents. Fred Rogers reminds us that, "No matter how helpful computers are as tools (and of course they can be very helpful tools), they don't begin to compare in significance to the teacher-child relationship which is human and mutual. A computer can help you learn to spell HUG, but it can never know the risk or the joy or actually giving or receiving one."

App Camp offered a collective hug for those interested in effective and appropriate uses of digital media with young children.

The warmth of the campfire, all those "C" and "E" words, and the generosity of all who attended will stay with me for a long time.

Ann H. McCormick, Ph.D., the founder of the Learning Company watches one of the Interface Design Specialists (aka kids) who were on hand to guide, and ground the adults.

Feature Reviews

Here's an alphabetical listing of new products, along with a full review, specific ratings and tester feedback. The "Entry Date" refers to the date we first learned of the product.

Butterfly HD

Designed to let children explore the life cycle of butterflies, this app is a loose collection of slides, movies and facts related to each stage of butterfly development: egg, caterpillar, chrysalis and butterfly.

Content includes videos and pictures, facts and diagrams realted to butterfly development. The content correlates to State Science Standards in the USA but is applicable to kids worldwide. Our testers liked the content of this app much more than the design.

Details: Sprout Labs, www.sproutlabs.net. Price: $1.99. Ages: 5-up. Platform: iPad. Teaches/Purpose: science, butterflies and moths. Rating (1 to 5 stars): 3.9 stars. Entry date: 5/14/2012. [WB]

Ease of Use	7
Educational	8
Entertaining	8
Design Features	8
Good Value	8

78%
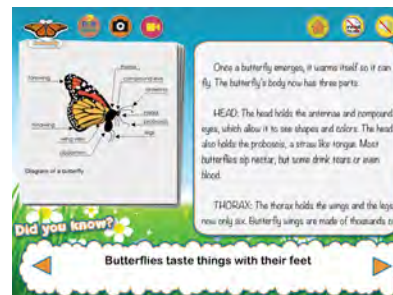
GlowFizz

Good intentions meet bad design in this virtual chemistry simulation. Available as a free download, the app is supposed to let children explore chemistry experiments, step by step, without the mess and risk. It's a good idea, but it is hard to know what you're supposed to do.

The app is set in a lab where the player can manipulate various test tubes, beakers and liquids by dragging and dropping them to complete experiments.

Content includes six experiments grouped under categories including: Color Complexes (shows how certain chemicals have the ability to change the color of other substances); Double Displacement Reactions (shows how you can create new substances from the ones available);   Acid-Base Neutralization (explains how Acids and Alkalis effect each other); and Periodic Elements.

In order to complete an experiment, simply follow the instructions written on the board and shake the iPad to mix the substances together. When you complete an experiment successfully, you receive a star and can move on to the next experiment or see the explanatory video of the experiments. Each video explains what happens at the atomic level and what triggers the changes that take place in experiments. Until the design improves, stay clear of this one.

Details: VeriQual, www.veriqual.com. Price: $free. Ages: 10-up. Platform: iPad. Teaches/Purpose: chemistry. Rating (1 to 5 stars): 1.2 stars. Entry date: 5/14/2012. [WB]

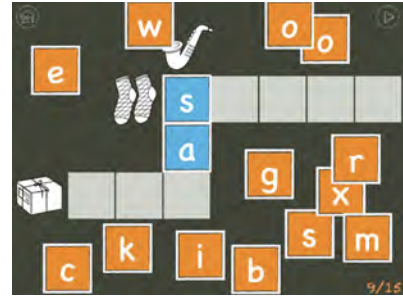|	
Ease of Use	4
Educational	3
Entertaining	1
Design Features	2
Good Value	2

24%

Kids Crosswords

Simple and straightforward, this ten level crossword puzzle app is based on 100 common short words. Each has an associated picture that isn't always obvious (testers thought the "nut" was a hat, and the "mat" was a roll of paper).

The puzzles are arranged from easy to hard, starting with single three level words like "ant" and moving up to three words that are mixed together. It is possible to jump between the levels at any time. The app is self-paced, and progress is saved from session to session. As you, each letter tile announces its sound; when each word is completed, it is spelled out and then spoken, reinforcing the symbol/sound associations.

The clean, straightforward design is dry but classroom friendly. There are options for upper/lower case, with either phonics or letter name spelling.

Details: Learning Touch, www.learningtouch.com. Price: $1.99. Ages: 4-up. Platform: iPad, iPhone, iPod Touch. Teaches/Purpose: spelling, letter and word recognition, upper/lower case. Rating (1 to 5 stars): 4.1 stars. Entry date: 3/1/2012. [WB]

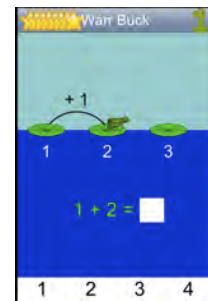|		
Ease of Use	8	82%
Educational	8	
Entertaining	9	
Design Features	8	
Good Value	8	

Kindergarten Addition

Here's a small screen math fact curriculum (for iPod Touch and/or iPhone) with some interesting design features and a record keeping system; all for a buck.

Chris Crowell (a Kindergarten teacher) tried it, and questioned the leveling, noting that at least the first 10% of the app is below K level. The biggest design flaw he spotted is that the leveling may not keep up with a child's improving skills. In other words, it can trap you.

We liked how the number concepts are presented in some atypical ways, e.g., multiple directions (left right, top bottom), plus such tools as a number line are provided to help you figure out the math. There is also a Spanish/English option that could be very useful.

The app features eight learning activities designed to demonstrate and teach addition in different ways. The start screen requires no reading and there are visual narrated instructions to all the learning activities, so even non-readers can use the app. Activities include: Frog Jump Number Line - count the number of jumps based on the second number of the equation, with the number the frog lands on being the answer to the problem; Counting Fingers - count the fingers to find the correct answer; Ruler Measuring - slide pictures of differently-sized objects next to the ruler to see the combined measurement; Dice - count the dots on two dice; Horizontal and Vertical Math Match-Up - match a horizontally written math fact to a vertically written one, when the two equations match, the correct answer is shown on a number line; Block stacking - stack color-coded blocks next to a number line, the height of the blocks determines the answer; Object Counting - count objects corresponding to the numbers in the equation on either side of an addition sign; and Final Exam - student must solve a math problem without any visual aids by choosing the answer from a field of 0-10.

Details: I Did It Learning, http://www.ididitlearning.com. Price: $0.99. Ages: 4-up. Platform: iPad, iPhone, iPod Touch. Teaches/Purpose: math, addition, subtraction. Rating (1 to 5 stars): 4.1 stars. Entry date: 5/2/2012. [WB]

Ease of Use	7	83%
Educational	9	
Entertaining	N	
Design Features	9	
Good Value	8	

Math Doodles

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

96%

Math Doodles consists of four hand drawn activities: Sums Stacker, Connect Sums, Unknown square and a preview (but functional) version of Splat GoRound. Each lets you playfully explore mathematical relationships in either timed or untimed settings. A hallmark of the activities is the inclusion of unconventional counting systems. These include braille, Spanish, money, Spanish tally marks, clocks, binary, Arabic and area fractions. Because the puzzles are both high in child control and they let you set you own challenge level, you're more likely to "try the math on for size." This is one of these apps in which you think the puzzle might be too hard, but you find yourself still doing it 20 minutes later.

Note that the author, Daren Carstens is an artist and a math enthusiast on a mission to help children discover the magic in numerical relationships. He has a lot to say about learning: see http://youtu.be/FUV-8vdaL_o. In addition Daren Carstens has been a volunteer at CTR's Dust or Magic conference for many years. There is no business relationship between Carstens Studios and CTR, however, we asked the G&T teacher at Desmares Elementary school to assign the ratings for this title.

Also note that Sums Stacker, one of the for activities, was released previously as an iPhone app (see Sums Stacker, CTR January 2010).

Details: Carstens Studios, www.carstensstudios.com. Price: $2.99. Ages: 4-up. Platform: iPad, iPhone. Teaches/Purpose: math, counting, logic, addition, clocks, angles. Rating (1 to 5 stars): 4.8 stars. Entry date: 6/1/2012. [MB]

Monster Mutt Rescue

Ease of Use	5
Educational	5
Entertaining	7
Design Features	6
Good Value	5

56%

A fun idea that is poorly implemented, this is a virtual pet simulation that lets you raise a pet monster, starting as a larva. The more you play, the more stuff you can unlock. This includes access to other Knowledge Adventure games, some of which include in-app sales. Everything you do in this app is linked to earning points, unlocking things and eventually downloading additional content.

The design is unresponsive at certain points, e.g., when you try to give your pet a toy, it doesn't always move with your finger swipe. We found the login process to be buggy and confusing.

Details: Knowledge Adventure, Inc., www.knowledgeadventure.com. Price: $free. Ages: 5-up. Platform: iPad, iPhone. Teaches/Purpose: math, problem solving. Rating (1 to 5 stars): 2.8 stars. Entry date: 5/25/2012. [WB]

Monster Physics

This invention construction kit contains 50 puzzles sorted into five challenge categories. In addition an open-ended "build" mode lets you freely experiment with 68 parts such as blocks of ice, rubber band balls, fruit, wings, bombs, magnets, a mechanical claw, ropes, chains and shapes. You can also just freely build to create a car, crane or a rocket ship.

Anyone who has ever played The Incredible Machine knows the format: you start with a challenge, e.g., to get your monster over a bridge. To do so, you line up a set of blocks, ramps and other elements and touch "start" to turn on the gravity. If things don't work, you can debug your design and try again. Progress is bookmarked saved for up to six player profiles and each can design their own monster.

Testers liked this app a lot, and found the puzzles to be addicting and realistic, but requested hints on some of the puzzles. Of course, this lack of help is also one of the charms of such as of puzzles. We especially liked how there could be multiple ways to solve the same problem.

Weaknesses are few but should be noted. The view is tricky to navigate when you are in the the "build" mode; there are times when your invention might bounce off the screen. You learn how to adjust this with a two finger drag; a technique younger children could find frustrating.

The bottom line? Monster Physics combines plenty of content in a playful yet powerful experience that children will want to come back to play... and experiment; making this a rich educational experience.

Details: Dan Russell-Pinson, http://dan-russell-pinson.com/. Price: $1.99. Ages: 6-up. Platform: iPhone, iPad (47 MB). Teaches/Purpose: science, problem solving, deductive reasoning, logic . Rating (1 to 5 stars): 4.6 stars. Entry date: 6/1/2012. [WB]

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

92%

Nick Jr. Draw and Play

Chatty and powerful, this creativity activity kit gives children new, fun ways to fill an iPad screen, incredibly fast. Serious drawing and coloring is also an option, too, thanks to a responsive palette of tools that include many shades of fine-lined colored pencils.

Work can be saved to either an app-specific library, or your iPad's photo library. It is also possible to share work to email or facebook, and toggle sharing options off if you're concerned about your child sharing work on facebook; a nice touch.

The app starts with a blank canvas and a lower tray with a large variety of drawing tools that include crayons, markers, charcoal, colored pencils, spray paint, paint brushes, water colors and a collage maker. It feels like there's a never-ending supply of tools and shades of colors to try. On thing we couldn't find, however, is a fill option. Our testers also noted that the clip art library is Nick-themed, and limited. Where this title excels is also a weakness. It gets too random, too fast. You can spread swirls of paint splatters splatter tops, animated lines with a set of colored majic wands, or discover animated Dora characters hiding inside surprise blocks, which also might contain characters from Bubble Guppies, Team Umizoomi or the Backyardigans.

While this app is a bit chatty (with Dora chiming in with such dumbed-down narration nuggets as "tap the eraser if you want to erase something") this app does a great job giving children a lot of different ways to create in a multi-touch medium. It was created by Cricket Moon Media, Inc. for Nickelodeon Kids and Family Games Group.

Details: Nickelodeon, www.nick.com. Price: $1.99. Ages: 3-8. Platform: iPad. Teaches/Purpose: creativity. Rating (1 to 5 stars): 4.3 stars. Entry date: 5/31/2012. [WB]

Ease of Use	8
Educational	8
Entertaining	9
Design Features	9
Good Value	9

86%

Princess Fairy Tale Maker

Ease of Use	8
Educational	9
Entertaining	10
Design Features	9
Good Value	10

92%

With a core design nearly identical to Draw & Tell (CTR March 2012) this open-ended creativity experience is designed to let children play with princess-related themes. Besides the ability to freely draw and drag-and-drop stickers, children can record and play back their own puppet shows, which can also be saved.

If you're looking for Disney-style graphics or Barbie-like princess, you won't find them in this app (the designers at Duck Duck Moose are also parents of young girls).

Is it possible to have a princess-themed app that is non-gender-biased? Perhaps. If so, this one come close.

There are some minor weaknesses. We would like the clip art to be easier resize using traditional pinch and pull multi-touch mechanics (instead you have to deal with a resizing box). Adding new clip art to a picture requires two touches -- one first to select, the second to move onto the screen. There is no "traditional" coloring mode; instead pictures are auto-filled with the colors or patterns you choose. We especially liked you you can import your own photos into this app, to mix with the large non-commercial library of clip part.

Now even Grandma or the pet dog can be the princess. All in all, this is another powerful creativity experience for children based on a popular theme.

Details: Duck Duck Moose Design, www.duckduckmoosedesign.com. Price: $1.99. Ages: 3-8. Platform: iPhone, iPad. Teaches/Purpose: creativity, pretending, princess, girls. Rating (1 to 5 stars): 4.6 stars. Entry date: 6/1/2012. [WB]

Salt Water Fuel Cell Monster Truck

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

76%

Salt Water Fuel Cell Monster Truck ($26, www.owirobots.com) is a labor intensive plastic model with a DUI battery. Inside the box you'll find a tiny electric motor, stamp-sized sheets of magnesium to power the battery, and about a hundred snap-together parts which must be carefully trimmed, a tedious job that requires some extra tools -- we used nail clippers. Also not in the box: some salt, water, a screw driver and for me -- reading glasses.

Working through the 26 page instruction manual consumed an entire evening of problem solving with our 16 year old exchange student. This included a frustrating bout with a jammed piston, a process that used up half our supply of battery materials (refills cost $7).

But we had fun, and learned that five drops of salt water, when dripped onto the magnesium, can make enough power to make the car grind across the kitchen table for about 15 minutes. We also figured out that a AA battery work too, with a little duct tape.

Details: Owi Incorporated, www.owirobot.com. Price: $26. Ages: 12-up. Platform: smart toy. Teaches/Purpose: engineering, logic, spatial relations. Rating (1 to 5 stars): 3.8 stars. Entry date: 5/8/2012. [WB]

Future Releases & Updates

This section contains a listing of products in the process of being reviewed, but not yet rated. We also include significant updates of older products.

App Crayon

Finally...an iPad stylus that's light, cheap, and fun to use. And, it works with other types of tablets or smart phones other than the iPad -- any type of capacitive touch screen. The only trouble -- you might not be able to get it.

App Crayon ($9.99, www.appcrayon.com), available online, is a triangle-shaped 4 inch stylus made of soft rubber. It has black strips of conductive material on the side that effectively transfers your capacitive charge down to the squishy stylus tip, giving you an extension of your finger.

The triangular shape is easy to grip and it won't roll off the table. A loop on the end makes it possible to put it on a lanyard. The only drawback might be that kids -- and dogs -- will want to chew on it. We've been informed that schools and educators can contact www.dano2.com directly to request direct purchase.

Details: Dano Toys, www.appcrayon.com. Price: $9.99. Ages: 3-up. Platform: iPhone, iPad, Android. Teaches/Purpose: a stylus for the iPad and other capacitive screens. Entry date: 3/30/2012.
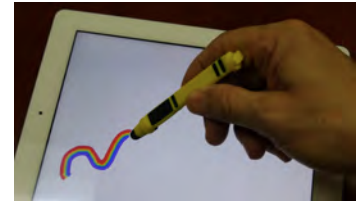
Baby Learns Colors

This app attempts to teach very young children the names of 12 basic colors.

Content includes three animated screens (fishes, blots, and spaceships) plus the ability to select your own avatar, record your own personal voiceovers (video instructions) or visit Prize World where you can color pages or play games. Other apps in the series include Baby Learns Shapes and Baby Learns Simple Objects

Testers noted that the pedagogy was "weird" with boos for wrong answers, and questioned the focus on learning colors, calling it harmless fun. A lot of the criticisms are diffused by the ability to customization the presentation.

Details: Bebebe Co., www.babylearns.com. Price: $2.99. Ages: 9 mos & up. Platform: iPad. Teaches/Purpose: colors. Entry date: 5/24/2012.
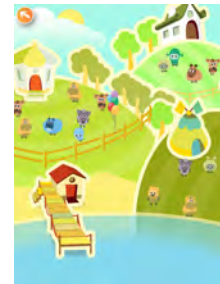
Brush of Truth

Dry but interesting from a design perspective, this is a branching storybook app, written in second person so you can choose how the action unfolds at critical points during the story by choosing one of two or three story branches. The plot deals with themes of greed and honesty.

When you reach an ending, you can go back and make new choices that let you explore a different path. Content includes 65 decision points and 20 different endings. Developed by Linxter, Inc.

Details: Story Bayou, http://www.StoryBayou.com. Price: $1.99. Ages: 8-12. Platform: iPad, iPhone, iPod Touch, Android. Teaches/Purpose: . Entry date: 3/27/2012.
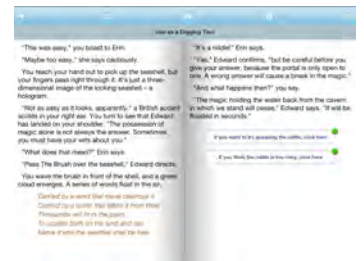
Color Dots

Here's a simple visual tracking activity, that is not that much different on a conceptual level than popping bubble wrap.

Your goal is to simply touch as many moving dots on the iPad screen as fast as possible. With each touch, you hear either a pop or a random musical tone (you can choose which happens in the options menu). You can also adjust for speed of the dots. The idea? To build skills in visual tracking and hand/eye coordination.

Details: Ellie's Games, http://ElliesGames.com. Price: $0.99. Ages: 6 mos & up. Platform: iPad, iPhone, iPod Touch. Teaches/Purpose: causality, fine motor control, tracking skills. Entry date: 3/29/2012.

Harry Potter for Kinect

Coming Fall 2012 for Xbox Kinect, this game is based on all eight Harry Potter films. Children join Harry Potter, Ron Weasley and Hermione Granger as they explore Hogwarts. The game uses Kinect's scanning technology (a first for a Harry Potter game) to let players put their faces into the game. Also used: Kinect's hands-free and voice recognition capabilities, letting you cast a spell by voice. Names in the press release include Samantha Ryan, Senior Vice President, Production and Development, Warner Bros.

Modes of play include competitive mini-games and co-op.

Details: Warner Bros. Interactive Entertainment, . Price: $call. Ages: 10-up. Platform: Xbox Kinect. Teaches/Purpose: gross motor, logic. Entry date: 5/29/2012.

Ko's Journey

Released November 2011, Ko's Journey is a Flash-based, browser delivered online math game, designed to embed math in the context of the story. According to press materials, the story starts as Ko, an ancient girl, embarks on an arduous journey and rite of passage to seek out her family under the guidance of her Grandfather's spirit.

As Ko plans her travels, searches for food and finds friends, players discover how to use coordinate systems (e.g., to find the North Star), calculate ratios, and utilize basic algebraic equations. The site targets middle-school math and could be used in school or in the home, say for home schooling. Pricing is as follows: individual (1 student/1 parent admin): $49.00; homeschool (2 students/1 parent admin): $79.00; school: $749.00 and up. The original math game design was written by a public school math teacher in the Andes mountains. Ko, as it was then called, became a semester-long classroom math game played with stone totems on hand-painted deer hides. Created by Imagine Education (Scott Laidlaw and Jennifer Lightwood), BNP Games and Cube2Media LLC.

Details: Imagine Education, www.imagineeducation.org. Price: $49 and up. Ages: 12-up. Platform: Windows, Mac OSX, Internet Site. Teaches/Purpose: math, logic, problem solving. Entry date: 11/16/2011.
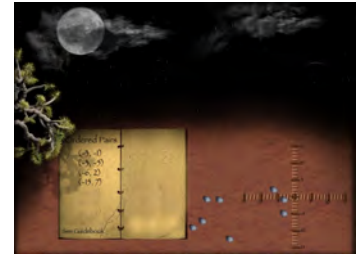
Locomaster- Lucas' Crazy Machine

Good art meets confusing design in this story-based app.

In the story, a little boy named Lucas has a machine called the Locomaster. The machine lets you turn Lucas into strange animals such as the Sillyphant, the Jokyfly, and the Crazy Crocodile. They will help the Wise Turtle win a race, look for the little Ladybugy, or help the Pretty Spider recover her shoes.

Content includes seven minigames, interactive animations and sound effects, and background music that can be toggled on/off.

Details: Mar Ballesteros Studio, www.marballesteros.com. Price: $2.99. Ages: 2-6. Platform: iPad, iPhone, iPod Touch. Teaches/Purpose: reading, logic. Entry date: 3/27/2012.

Mario Tennis Open

Fun and fast, this 3D edition of Mario Tennis lets you join Mario and his Mushroom Kingdom friends on the tennis court for single or doubles matches. There are also skill building mini games and online play.

You can use the built-in wireless features of the Nintendo DS to play with up to four players in local or online multiplayer modes and exchange information using StreetPass. You can choose between touch-screen and gyro sensor controls or button-based gameplay. You can also choose from a variety of playable characters or use your own personalized Mii character. Other features include: an Open Match mode that automatically pairs you with players of comparable skill levels; Single Player Tournament mode that lets you compete against your favorite Mushroom Kingdom characters in a classic single elimination tournament; Exhibition mode that lets you adjust the skill level of your computer-controlled opponent, select a court, and choose the number of sets to be played; and Chance Areas that appear on the court during a match that you can run to in order to execute a supercharged Chance Shot. Developed Camelot Co., Ltd. for Nintendo. Note: additional Nintendo 3Ds systems are required for local multiplayer mode and broadband internet access is required for online play.

Details: Nintendo of America, www.nintendo.com. Price: $40. Ages: 6-up. Platform: Nintendo 3DS. Teaches/Purpose: sports, tennis, collaborative play. Entry date: 4/5/2012.

Nerf Firevision Sports Football

Coming this August, a merger of lighted eyewear   and throwing toys, Nerf Firevision Sports Football consists of two pairs of battery powered LED Firevision Sports Frames eyewear and a standard sized Nerf (foam) football that has reflective surface. Hasbro also makes a similar basketball toy.

The eyewear is sold alone for $7, or you can get a kit with the ball for $20. Also coming in August, Nerf Firevision Sports Nerfoop Basketball Set ($15).

Details: Hasbro, Inc., www.hasbro.com. Price: $20. Ages: 6-up. Platform: smart toy. Teaches/Purpose: throwing, light, gross motor development. Entry date: 5/14/2012.

Pet Factory

In this app, your child can make their own pet at the Pet Factory. They can also dress them up, see their different emotions or actions, and snap and save photos of your pet. Other features include: kids learn matching clothes and accessories for cute pets, and select emotions and actions for the pet to watch it laughing, crying, drinking, playing hula hoop, brushing teeth, etc. Testers said "very simplistic and not very original. My students played with it but it didn't hold their interest very long."

Details: AvatarMe Inc., www.avatarmeinc.com. Price: $free. Ages: 4-up. Platform: iPad, iPhone. Teaches/Purpose: pets, language. Entry date: 5/25/2012.

Pete's Robot

Featuring original hand-drawn art and crisp interactivity, this ebook tells the story of a boy named Pete who loves to build things. One day he decides to build a robot. He builds and builds, but forgets the most important part, the robot's "heartdrive".

The robot goes crazy and escapes into town causing mischief, and it is up to Pete and his dog Spot to find the robot and restore order.

Features include the ability to choose from three narrators, each with a distinctly different style. The app also features original sound effects created by Jordan Sapp (www.jdsapp.com) and background music created by Eric Tuffendsam of Moonlight Studios. We found the art and music to be original and refreshing. This isn't your average eBook.

Details: Heartdrive Media, www.heartdrivemedia.com. Price: $2.99. Ages: 3-up. Platform: iPad, iPhone, iPod Touch. Teaches/Purpose: reading, language, art. Entry date: 4/20/2012.

Piano Dust Buster

This iPad app is designed to motivate you to practice the piano, and is activated by the sound of a real piano or keyboard. The sounds you play, and how you play them, control what happens in the game.

There are no hardware connections or adapters needed. The app features two game modes for learning notes - Germ Attack and Staff Master. The app also includes an on-screen virtual piano with 3D perspective and life-size keys. Songs include : The Entertainer; Beethoven's Ode To Joy; La Bamba; Frere Jacques; Amazing Grace; Fur Elise; and more.

Details: JoyTunes, www.joytunes.com. Price: $free. Ages: 5-up. Platform: iPad. Teaches/Purpose: piano, music. Entry date: 3/29/2012.

Puzzles 'N Coloring - Sea Life

This app contains 16 sea life themed puzzles including a crab, fish, and dolphin. There are three levels of difficulty.

Easy divides the puzzle into six pieces, medium divides into 12 pieces, and hard divides the picture into 20 pieces. The app also features 12 coloring pages, with 60 colors to choose from. Other features include instrumental music that can be turned on/off from main screen and an undo button.

Details: Amaya, http://www.amayasoft.com. Price: $1.99. Ages: 2-up. Platform: iPad, iPhone. Teaches/Purpose: spatial relations. Entry date: 1/12/2012.

Ravensburger Augmented Reality Puzzle + Video Effect

Discover hidden surprises lurking within one of four special 1000 piece Ravensburger jigsaw puzzles, by pointing your iPhone, iTouch or iPad 2 or 3 camera at the completed scene.

Once the app matches the image, it can trigger music and/or animated features. It might turn a daytime image of Paris into a 360 degree night view, so you can look around, touching landmarks to pull up historical facts. In the puzzle called "Colorful Underwater World", you'll see fish swimming around. The app works with select 1,000 piece puzzles and will be available starting "Spring 2012." Puzzles will include Above the Roofs of Paris; Colorful Underwater World, African Animals and Lofoten, Norway. See http://youtu.be/ji9gwP-8O6A.

Details: Ravensburger USA, Inc., http://www.ravensburger.com/uk/start/index.html. Price: $20. Ages: 12-up. Platform: iPhone, iPad 2. Teaches/Purpose: fine motor coordination, classification, problem solving, spatial relations. Entry date: 5/15/2012.

Solidoodle 2nd Generation 3D Printer

Solidoodle 3D Printer works with your computer (connection with a USB) to print out small plastic objects in 3D. The technology works nearly identically to the Cubify and the Makerbot Replicator, but at a lower price. The downside? As of print time, there is a 6 to 8 week wait. The printer can create plastic parts up to 6" x 6" x 6" using spools of 1.75 mm ABS plastic filament.

There are three price options. The Base Model is $500 without the heated platform, making it less desirable for larger items. The Pro Model $550 has a heated build platform letting you make large objects without warping. The Expert model ($600) includes an outer cover & front acrylic door to give your printer a finished look with clean lines.

The printing software accepts 3D files in STL format. The open-source software works with   Windows, Mac or Linux. The printer comes assembled, and includes a small roll of starter filament, power supply and USB cable.

Details: Solidoodle, www.solidoodle.com. Price: $500. Ages: 12-up. Platform: Windows, Mac OSX, Lynux. Teaches/Purpose: a 3D printer. Entry date: 5/8/2012.

Spirit of Math Drills

Based on Spirit of Math's drill system, this app is designed to improve math facts and arithmetic skills in both children and adults using fast paced, timed drills. The app uses a grid and the repetition of the index row numbers, so that children can master one fact and its patterns before moving on to the next number.

The app also contains a progress chart so children can track their score and time and watch themselves improve.

There are five drill types, six levels and unlimited drills; multiple user capabilities; multiple keypad options. In addition, the app progresses from basic addition up to integer addition and short division.

Details: Spirit of Math Schools Inc., http://www.spiritofmath.com. Price: $1.99. Ages: 7-up. Platform: iPad. Teaches/Purpose: math facts, addition, subtraction, addition, mulitplication. Entry date: 3/26/2012.

Squiggles

This drawing app lets your child squiggle away on pages filled with Lazoo's art, then hit the Go button, and watch them come to life. You can save your child's drawings in the app or upload them to Lazoo's secure digital treasure chest and email them to family and friends. The projects have a rather random feeling to them.

Features include: 14 unique "living" drawing pages; drawing palette including stickering, chalk, mystery color, ketchup tool, and more; gallery for saved pictures; sharing features including email, Facebook, Twitter, Lazoo community, and printing capabilities; interactive storybook; and an animated short featuring Lazoo's characters, Bobu and Miku.

Details: Lazoo Worldwide Inc., http://www.lazoo.com. Price: $free. Ages: 2-up. Platform: iPad. Teaches/Purpose: creativity. Entry date: 3/29/2012.

Very Cranky Bear, The

This is an interactive version of Nick Bland's children's book, The Very Cranky Bear. It features narration by Australian actor Angus Sampson and a musical score by Helen Croome.

Children can join Moose, Zebra, Lion and Sheep as they try to hide from the rain in a cave, but accidentally disturb a very cranky bear. Features of the app include: Be the narrator - record and play back your own voice; tilting the device on special pages adds depth to animated pages; and find 5 hidden cards to unlock a surprise.

Details: We Are Wheelbarrow Pty Ltd, http://wearewheelbarrow.com/. Price: $4.49. Ages: 3-up. Platform: iPad, iPhone. Teaches/Purpose: reading. Entry date: 1/12/2012.

wipEout 2048

Race on futuristic anti-gravity tracks with this new Vita edition of the original very fast racing game. Rebuilt exclusively for PS Vita's two sided multi-touch interface, you can now race against up to eight players simultaneously - including players on the PlayStation 3.

Key features include the ability to steer your ship with either the analog sticks or with the tilt motion control of the PS Vita's Six-axis sensors. The front and back touch panels let you trigger weapons.

The multi-player feature works over Wi-Fi by way of an ad-hoc connection. Single player and multiplayer campaign modes allow players to complete in race events, challenges and timed trials, rising through the ranks to unlock new ships and events by earning points throughout each race. Created by SCEE Liverpool Studios for Sony.

Details: Sony Computer Entertainment America, Inc., www.scea.com. Price: $30. Ages: 10-up. Platform: Vita. Teaches/Purpose: racing, fine motor control. Entry date: 2/17/2012.

World of Physics: Fluids

Here's a set of puzzles designed to let children experiment with fluid behaviors.

In the first game, you using fluid motion to move balls around and achieve level objectives.

The game can be incorporated into lectures as a virtual lab activity, played at home or on the go, and touches upon standards in Earth Sciences and Physics.

Teachers called it "a solution in search of a teaching situation" and commented "not sure if the fluid representation is 100% accurate but if it is this could be an interesting way to introduce children to the behavior of liquids without getting wet." Developed in partnership with RobotSuperBrain.

Details: Iridescent, http://iridescentlearning.org. Price: $free. Ages: 10-14. Platform: iPad, iPhone, Windows, Mac OSX. Teaches/Purpose: science, fluid mechanics. Entry date: 5/23/2012.