



Tablets for Kids

Which deliver the most **bang** for the buck?

BATTERIES RESPONSIVITY CAMERAS
CREATIVITY FUN APPS

By WARREN BUCKLEITNER

The Chicago O'Hare TSA agent was curious, eyeing the stack of colorful tablets I was trying to hurry through airport screening. I took a guess. "You have kids?" "Yep," he said, "and I'm thinking about getting her one of those" he motioned at my tablets, arranged two per bin in a nice line. "You have a favorite?" I only had a few seconds, so I blurted the conclusion of this article.

Spring for "real" tablet -- a Google Nexus 7 or a Amazon Kindle Fire HD (both \$200)... or if you can afford it, the iPad Mini (\$330). These will give you the biggest bang for your buck." "But it doesn't have one of those colorful silicon bumpers" he said. "Don't worry, they're coming" I said. "Start with the apps the device can run."

Here's a rundown on all the latest children's tablets. As you can see, there's a lot of news. To help sort it out, we created a rubric to generate ratings, not unlike the way we review software. Keep in mind that this is a quickly emerging category of products. Prices, features and app availability will change, so shop around for the latest prices.

RATING THE TABLETS

Here are the six criteria we used to generate the ratings for this article.

Ease of Use: How easy is the device to turn on, charge, load with apps, start or stop apps, change the volume, get online and so on.

App Selection: How many apps will the device run? Can you easily get to a big app store, like Google Play or Apple's iTunes?

Durability & Safety: Will the device survive a drop on the floor, or is it easy to purchase an affordable bumper? Are the ports able to handle a child's attempt to connect cables? Are there solid parental controls that are easy to use?

Battery Life: How long do the batteries last? Is it possible to charge the device from different sources? Are there power saving features that are easy to use?

Good Value: How much does it cost, vs. what does it do? Finally, how does it compare with that current state-of-the-art (in this case, the iPad or iPad Mini).

WHAT IS A TABLET, ANYWAY?

For this roundup, we used a broad interpretation of the word "tablet." In this case it's generally a mobile device that might fit in a child's pocket.

TOY BASED OPTIONS

These include the **MobiGo**, **InnoTab 2**, **InnoTab 2S** and **LeapPad 2**. As I concluded in my New York Times article <http://nyti.ms/XCJXcU> these provide the lowest priced entry to the tablet concept, but they make little economic sense down the road. The experience they deliver is inferior to the current Android or Apple options (see **Nabi Jr.** for an interesting comparison).

If you decide to go this route, the cheapest option is VTech's **MobiGo 2** (\$50), followed by the updated **LeapsterGS** (\$70). Both are solid choices, despite having smaller mono-touch screens. New to this year's edition, faster processors and separate log-in accounts so multiple children can share the same device while saving their progress. Both also now have accelerometers, letting you tilt or lean in some of the games. MobiGo's microphone and fold-out keyboard are noteworthy, and the back-facing camera on the LeapsterGS is the best yet, especially because of the improved photo and movie editor.



From left to right: MobiGo2, Innotab 2, InnoTab 2S, LeapPad 2 and LeapsterGS

VTech's **InnoTab 2** (\$80) now has a rotating camera; the **InnoTab 2S** (\$100) adds built in Wi-Fi that does nothing more than let your child browse apps, while generating e-mails telling you which ones you should buy. The InnoTab devices have less storage capacity than the LeapPad, but the storage can be expanded by way of an SD card. The **LeapPad2 Explorer** (\$100) starts faster and comes with two better-quality cameras, both front and back. All four devices let you purchase software the old-fashioned way: by driving to a store and paying \$20 to \$25 for a cartridge. All of the devices share one consistent attribute. They are not shy about pestering a child to find a grown-up to help them download more apps.

The bottom line is, that the differences between this year's Leapster, InnoTab and LeapPad models are slim. Whichever you choose, remember that each is a platform that can lead to a significant investment in software.

After you add up the \$100 for, say, a LeapPad or an InnoTab, and then buy four \$20 cartridges, you've already spent more than the price of low end **Kindle Fire** (\$180), **MG** (\$150), or the **Nabi Jr.** (\$100); devices with a high-resolution displays, and parental controls app stores with hundreds of \$1 treasures. Not to mention no need for AA batteries.

Apple's iOS Options

Four Apple options include the discontinued **iPod Touch 4** (\$180), **iPod Touch 5** (\$300), **iPad Mini** (\$330) and "new" **iPad** (\$500). On our testing rubric, the Apple products consistently came out on top in all but one area: price. But the reality is that there are significantly more children's apps that run on iOS (Apple's mobile operating system) than any other platform. If price is your determining factor, consider turning your iPhone 3s, 4 or 4s into an iPod Touch, by

iPad Mini

Ease of Use	9	96%
App Selection	10	
Durability and Safety	10	
Battery Life	10	
Good Value	9	



iPad mini

iPad 2

iPad
with Retina display

Wi-Fi
16GB \$329
32GB \$429
64GB \$529

Wi-Fi
16GB \$399

Wi-Fi
16GB \$499
32GB \$599
64GB \$699

deactivating the phone. All you have to do is stop paying the bill. Load some good apps, and you can hand a child a ticket to the highest quality apps. But what about the price? The good news is that the Android market is strong and growing, giving Apple more competition, and giving you an affordable choice. Selections for children in Google Play (the Android equivalent to iTunes) is growing rapidly. We'll cover those later.

VIDEO GAME OPTIONS

Three important video game delivery options also include cameras and significant selections of software. The best bang for the buck is either the **Nintendo DSi** (now \$100), followed by the **Nintendo 3DS** (\$170). Both have two cameras, limited Wi-Fi, a Nintendo App Store and hundreds of game cartridges, including such classics as Pokémon. The 3DS is backward compatible with older DS titles, giving it the edge in software availability. The weakest option is the **Sony PS Vita** (\$250).

ANDROID TABLETS

OK, hang on -- this is where things are getting interesting, especially considering that most of these products didn't exist 12 months ago. They're listed here in alphabetical order.

Kurio 7 (\$150, KD Interactive) has well intentioned parental management features, combined with underpowered hardware and a less than clear screen. It also has limited app availability. Kurio comes in three sizes -- 7 inch (\$150), 8 inch (\$250) and 10 inch (\$350). Features include micro SD port, HDMI out, and a headphone jack. The management features let you create up to eight profiles. We especially liked how you can create custom search rules or app collections. This includes the ability to give each child their own screen name. Weaknesses include app availability. Kurio tries to channel children into their app store, where they can control, and profit from, future app purchases. A recent download is supposed to expand app availability to the Amazon.com app store; a feature we did not try. Some of the peripherals for Kurio are interesting. These include headphones, and a car holder is designed to convert the tablet into a mobile media center that attaches to the back of a seat rest. Kurio was made in France by Kidz Delight. See the CTR preview video: <http://www.youtube.com/watch?v=coov40IJ200>.

Kurio 7

Ease of Use	9	84%
App Selection	7	
Battery Life	8	
Durability	9	
Good Value	9	

MEEP! (\$150, Oregon Scientific, <http://www.meeptablet.com/us/>) is an underpowered 7 inch, Wi-Fi enabled Android tablet that comes with its own app store. The idea is to give children a taste of Android 4.0 power, without access to worrisome content; a mission shared by others. The modified Android 4.0 operating system attempts to make it easy for a child to get to their music, movies, e-books, and apps, but, the over stylized, movie-real type of menu seems sluggish when running on the 1.0 GHz processor. Standard features include the head-

MEEP! Tablet

Ease of Use	7	68%
App Selection	6	
Durability and Safety	9	
Battery Life	7	
Good Value	5	


phone jack, a front facing camera, and motion sensing. Features not commonly found on competitive tablets include both 4 GB of internal storage memory, and a Micro SD expansion slot (very nice). MEEP also has a mini HDMI port in case you want to plug into your big screen. The 7 inch screen is unique because it can work when touched by any physical object, such as a plastic stylus; not just your capacitive finger. If you examine the screen closely you'll see it is covered by a thin plastic membrane that uses light to calculate where you are touching, using a Swedish technology called Neonode zForce. We found the screen sensitivity to be acceptable. The parental controls can be adjusted and managed remotely. Apps include 50 onboard selections, including several "light" editions of popular games, including, Angry Birds. New apps must be purchased through the MEEP app store. Compared to the others, this was not our top pick even though we were not able to test it with children. The bottom line? This first edition is a mediocre Android tablet for kids. See the Toy Fair 2012 preview video <http://www.youtube.com/watch?v=snfm2RiguW8> or our in-store review <http://youtu.be/X4CQwzjhWv8>.

MG (\$150, PlayMG Corp. www.playmg.com).

MG (\$150, www.playmg.com) is both pocket-sized and powerful. MG gives you access to a large and growing library of Android apps by way of Google Play. And, it doesn't make calls. All you need is Wi-Fi and your own USB port to get it charged. The base-level unit includes the device plus 11 pre-loaded games that includes Angry Birds, and a \$10 cash credit toward future game purchases. We tested the "bare bones" configuration that didn't even include a charger or micro USB plug. To charge, you plug it into any computer, or borrow a charger from another device. Children's apps are managed by MG Family Collaboration System using services called Digital Wallet and Remote Trust notification, which allow children to be given an allowance. You'll find Wi-Fi, a clear 4" touchscreen; 4GB of internal memory, plus an SD port for expansion (an 8 GB micro SD card comes in the box). Android 4.0's "Face Unlock" security feature uses MG's front-facing camera. If there was such thing as an iPod Touch for Google's Android operating system, this would be it. See the demo, at <http://youtu.be/tetbDPu5F4E>

MG

Ease of Use	10	90%
App Selection	9	
Durability	8	
Battery Life	8	
Good Value	10	



Nabi 2 (\$200, <http://www.nabitablet.com>), aka the "Fuhu NABI NABI2-NV7A 7-Inch Tablet", comes with a better screen and a noticeably faster processor than last year's edition. With financial backing from Foxconn (ironically the same company that makes the iPad) the 7 inch tablet is made by China-based Fuhu.

Pronounced "nob-ee" (like knob), the tablet begs the question: with more power and the same price, what's the catch? It appears that more and more kid's hardware makers are following a business model used by your local car dealer. Sell a cheap car but expensive floor mats. The hardware is merely the portal to online app

Nabi 2

Ease of Use	9	86%
App Selection	7	
Durability and Safety	9	
Battery Life	9	
Good Value	9	



Did you know....

One 90 minute movie takes about 2 GB of storage? That would fill half of your Tabeo, unless you buy more memory. Onboard storage matters.

stores. In this case, the store is called "App Zone" and the selections are limited. No Dr. Seuss, LEGO or Oceanhouse media, for example, but you can find lots of flashcard apps and a magazine store called Zinio. Music is provided by Spinlets, where a song like "Born This Way" cost \$1.29. We were less than impressed with the heavily didactic Fozz Kids University. If you peel back the silicon protection, you'll find all the standard ports, including a MicroSD port for memory expansion, and a mini HDMI port. Other features include a Chore List and Treasure Box. With Chore List, kids can manage their priorities for the week and keep track of their achievements, which parents can manage and reward with coins, that cost real money. These coins can be used for apps, music, videos and accessories. Nabi has a digital allowance program.

It is still possible, in theory anyway, to type in a password, turn off the kid mode, go to a browser and get apps from the outside world, but you won't be able to easily install them in your child's account. Visit <https://store.nabitablet.com/> for more information.

Tabeo (\$150, ToysRUs, www.toysrus.com). Pre-loaded with 50 children's apps, this dim-screened 7 inch 1 GHz Android tablet is now a competitor to the Nabi, last year's Toys R Us Android tablet of choice.

Called "tabeo" (all lower case) the 7-inch tablet only has 2 GB of storage but this can be supplemented by way of the Micro SD slot. 50 apps are pre-installed with recognizable names. Integrated parental controls let you create accounts for up to eight people, and this includes the ability to set usage timers. In addition, if the browser is used, parents can get an email alert. Apps come from the tabeo App Store. Ten non-impressive education apps include AlphaTots, Discovery Kids Putterbugs, Operation Math and TechCalc; the ebook collection also failed to hold our tester's imaginations. Additional themed bumpers and tabeo branded licenses, docks and tabeo branded cables are planned. You can learn more at www.tabeo.com.

Tabeo

Ease of Use	8	72%
App Selection	6	
Durability	8	
Battery Life	8	
Good Value	6	



VINCI Tab II (\$200, Rullingnet Corporation

<http://vincigenius.com/vincitab>). Updated with a slightly faster processor and a lower price, the VINCI Tab II is a custom-made 7 inch tablet for young children (ages 1 to 4) that comes bundled with a set of poorly designed, custom-made apps. The device is easy to hold, thanks to a set of distinctive red handles, and wireless Internet features have been added.

VINCI Tab II

Ease of Use	8	46%
App Selection	2	
Durability	3	
Battery Life	6	
Good Value	4	



The device itself is custom-made, based roughly on the specs of a Samsung Galaxy Tab- powered by an 1.2 GHz processor running Android. It was designed by Dan Yang, a fiber-optic entrepreneur/parent. Standard features include a front-facing 3 megapixel camera, volume controls and lithium polymer batteries. The protective soft-cornered handles make it easy to hold... or chew on. The big selling point is the curriculum, a collection of several hundred apps that vary in quality. Many share some common attributes which include a didactic narrator and blocky, low quality images.

VINCI Tab M

Ease of Use	9	54%
App Selection	5	
Durability	7	
Battery Life	4	
Good Value	2	



VINCI Tab M (\$170, Rullingnet Corporation

<http://vincigenius.com/vincitab>)

Designed for the very first users of technology (children aged 18 months to 4 years) Vinci Tab M is the little brother to last year's red-handled Vinci Tab, with a clear 5" screen. For \$20 more, you can get a model with cell phone connectivity called the MV. Both run an older version of Android (the edition we looked at was version 2.3.5). This smaller edition offers more technology and a better design, in a smaller package. Features include 8 GB of internal storage, plus a MicroSD card slot for expansion, a back-facing camera, tilt sensing, a micro USB charger and a set of apps that include the Vinci preschool curriculum. The Vinci app library has grown a great deal in terms of numbers, however, many are bite-sized, to the point that there are apps for each letter of the alphabet.

As we browsed through the library, we had to search to find even a single quality app. In addition, as early childhood educators we were nothing short of horrified by an app called Vinci Assess L1, which

asks children a series and then assigns a quantitative score social skills. Questions include "Are you a big or little person" (T/F) and "how many people in your family?" again T/F. Thankfully, there's a disclaimer, but publishing this type of tool in a "genius" wrapper is grounds for educational malpractice. A parents mode can be accessed by entering a password, giving you access to mainstream content and the Google Play app store; features we did not try. Besides the highly didactic, poorly designed apps, other weaknesses we noticed include a slight hum to the speakers and a poorly calibrated screen that made it hard to hit targets like the spacebar or the continue button. The best part? The red rubber silicon handle.

SERIOUS TABLETS

Kindle Fire HD (\$200 by Amazon.com) is one of our favorite non-iPad options because of its powerful hardware/app combination. Children have access to "over 22 million movies, TV shows, songs, magazines, books, audiobooks, popular apps, and games such as Facebook, Netflix, Twitter, HBO GO, Pandora, and Angry Birds." Kindle Fire is a serious portal to digital materials. It also has integrated support for Facebook, Twitter, Gmail, Hotmail, Yahoo! and more, as well as Exchange calendar, contacts, and email. The front-facing HD camera lets you Skype, and Amazon offers cloud storage. Management features include Kindle FreeTime - a personalized tablet experience designed to let you set daily screen limits, and give access to appropriate content for each child.

Nexus 7 Made by Asus for Google (the company down the road from Apple, that owns the Android operating system), the Nexus 7 is one of three from the Nexus family. See also the phone-sized Nexus 4 and the iPad-sized Nexus 10. The 16 GB costs \$200, but factor in \$20 for the case. Besides the solid mainstream hardware, you'll find "700,000 titles" plus tight knit integration for such things as Google maps, Gmail, Google Docs and -- of course -- the search engine. Because these services are cloud based, storage can be used for movies or apps.

NOOK HD is 7 inch color tablet (\$200, at <http://www.barnesandnoble.com/u/NOOK-Kids/>); **NOOK HD+** is 9 inch version that lets parents create custom profiles for different children to create a personalized library. While you can play Angry Birds on a Nook, current app selection is limited (n = about 180).

OTHER TABLETS WORTH WATCHING

There are other tablets we've heard about but were not able to test.

Child Pad (\$130 by Archos www.archos.com) is powered by Android 4.0, the tablet specs are familiar: a 1GHz processor, a meager 1 GB of RAM and a specialized app store powered by AppsLib (<http://appslib.com/>), which filters apps down to 14 categories, with "10,000 games, entertainment, communication, multimedia, books, comics, sports and more." The device comes with 28 kids apps pre-loaded. On the list: Angry Birds, Pig Rush and Flight Frenzy.

LexiBook Tablet (\$150 by LexiBook) <http://group.lexibook.com> is a French import is a \$150 seven inch Android with parental controls, and apps that include a "school curriculum for ages 6-12." Ports include a headphone jack, HDMI out, a micro SD card and a peripheral port that can work with an external keyboard. Other features include a camera with morphing software, and access to a special app store called the "Lexibook Market" with "3,700 applications." According the spec sheet provided at Toy Fair (Feb 2012) "batteries last for 20 hours." If so, this is significantly longer than competitors. Video at <http://youtu.be/d1Lhd3WciFM>.

Did you know....

Apple tablets run an operating system called iOS. Content (apps, music and videos) are managed by iTunes.

Google tablets run an operating system called Android. Content (apps, music and videos) are managed by Google Play.

Fable (\$call by Isabella Pro is "Juice proof and durable." Fable is a 7 inch Wi-Fi Android tablet with a rear-facing camera. The parent features are provided by ViziMe, a "full circle ecosystem" for apps and digital content. Coming in 2013.

Nabi Jr. (\$99, Fuhu, Inc. www.fuhu.com) is a 5-inch (800x480) capacitive touch that also serve double duty as a baby monitor and a karaoke machine. It runs Android ICS. The tablet comes pre-loaded with educational apps, games, and videos. It has a single rotating front and back camera and a



pre-installed curriculum called the Wings Education System designed to adapt and keep records. There are no cartridges or AA batteries.

What it does have is it's own app store, with the promise of being able to side-load the Amazon app store. If so, this could be a major advantage, but we've yet to test a Nabi Jr. Fuhu is selling add-ons that can convert the Nabi Jr. into other things. An infrared night vision camera has a remote zoom. After you register the device and sync to the "Nabi Cloud" you can use a second Android phone to have your own video baby monitor, with a microphone for two-way communication. Other baby monitor features include a room temperature display, a sound level indicator and a low-battery alert. The Karaoke Machine can be used with the onboard speaker or you can plug into a big screen with the HDMI port (cable not included). Other add-ons include a talking toy cash register with play money (transactions are tracked on the tablet screen, and play money lets children use "real" bills and coins); a game controller and nabi Pet, an "interactive toy that kids can name and raise by feeding it, walking it, playing with it." The nabi Jr. will be available mid-December for \$99 for the 4GB model and \$129 for the 16GB model.

THE BOTTOM LINE?

For about the cost of a good children's bike, you can get a solid children's tablet; both are important for helping children play, learn and grow. As you can see here, hardware and software varies in price and quality. If you can afford it, the best option is the **iPad Mini** (\$330) or the **iPad 2** (\$400). But Android options aren't far behind. If you choose to go the Android route, consider a "real" tablet first; either the **Kindle Fire** or **Nexus 7**, and then configure it for your child. For the smaller size and price, consider the **MG** (\$150) and remember you can't go wrong with a **Nintendo 3DS** (\$170). The **Nabi 2** (\$200) is slightly better than the **Kurio 7**, and a lot better than the **Meep** and **Tabeo**. Finally, remember that screens are a highly symbolic medium; which runs counter to the way that concrete operational children learn; so to keep screen time balanced. So get outside and build a snowman.

Dust or Magic eBooks

Announcing the First Dust or Magic eBook Retreat: Designing and Critiquing Narrative Driven Interactive Media for Children

WHEN: April 21-23, Sunday through Wednesday.



WHAT IS IT: A special event bringing together leading designers of children's interactive content, to "get smart" on children's literature in the age of the touch screen. We'll critique best practice, as identified by the 2013 BolognaRagazzi Digital Prize Jurors, and see what when wrong with the many less-than-noteworthy products flooding the Apple and Android app stores. We'd explore how

to tap the potential of the tablet medium for:

- Telling stories— to move beyond the page swipe and hot spot.
 - Scaffolding techniques to help a child move from a non-reader, to a reader.
 - Child empowerment techniques, to increase engagement.
 - Embedded reinforcements — ways to use interactive techniques to work with the narrative
 - Child authorship techniques.
- Examples of ways you can put a child's voice inside a story.



We'll also demo and discuss the state of children's app design, and offer on the spot critiques of participant work, using Dust or Magic's laser guided feedback.

ATTENDEES: Children's publishers, app designers, reviewers and researchers. As with other Dust or Magic event, this is independent, there are no sponsors or selling; all platforms are discussed equally.

WHERE: Our meeting will take place at the epicenter of children's literacy — at the former home of the founders of Highlights for Children, in the wooded hills near Honesdale, Pennsylvania. The campus consists of the Founders' farmhouse, 21 cabins and a 5,200-square-foot conference center known as The Barn at Boyds Mills, located 2½ hours from New York City and approximately 45 minutes from the Wilkes-Barre/Scranton International Airport. Participants from distant points are welcome to come early. Meetings and meals take place in The Barn, which has several relaxed classroom-like areas, a Great Hall, an outdoor fireplace and a giant kitchen. There is excellent password-free Wi-Fi and high definition displays. Charming cabins with a rustic feel have modern facilities and are writer-ready with desk, chair and filled bookshelves. Everyone raves about the food. Farm-style meals are prepared by a top-notch chef and mealtimes are a time for lively discussion. Snacks are always available for late-night or early morning writing sessions. We will accommodate dietary restrictions.



REGISTRATION: \$1480 per seat. Price includes food, supplies and housing for three nights. To register by phone, please call 800-993-9499 (9 to 3 EST) and speak with Lisa or Megan. Group size is limited to 40, on a first-come, first-served basis.

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