

*Washington Post*, “The Answer Sheet” blog by Valerie Strauss  
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## Is Khan Academy a real ‘education solution’?

By Valerie Strauss

The Khan Academy has been in the education news lately but it’s not the kind of publicity that its founder, Salman Khan, would have chosen if given a choice.

The academy is a nonprofit organization started by Khan, a former hedge-fund manager, that offers free lessons in math and other subjects via videos posted on the Khan Academy Web site.

Last month, two associate professors from Grand Valley State University in Michigan critiqued one of the Khan videos — on negative and positive integers — in a satirical video:  
[http://www.youtube.com/watch?v=hC0MV843\\_Ng&list=UUso\\_yTT2OOob7nRhFIcL7xfw&index=2&feature=plcp](http://www.youtube.com/watch?v=hC0MV843_Ng&list=UUso_yTT2OOob7nRhFIcL7xfw&index=2&feature=plcp)

...that pointed out problems in the specific lesson and, more broadly, made fun of the entire Khan enterprise, Education Week reported. The academy pulled the suspect video and replaced it.

And now, educator Dan Meyer and Ed Week opinion blogger Justin Reich, noting that there are errors in some of the Khan Academy videos, have started a contest inviting readers to critique the academy lessons. You can see how to participate here:  
[http://blogs.edweek.org/edweek/edtechresearcher/2012/06/the\\_mtt2k\\_prize\\_and\\_kudos\\_for\\_khan.html](http://blogs.edweek.org/edweek/edtechresearcher/2012/06/the_mtt2k_prize_and_kudos_for_khan.html).

This is the background for the following post on the kind of teaching that the Khan Academy offers. It was written by Marion Brady, veteran teacher, administrator, curriculum designer and author.

*By Marion Brady*

People who are good at what they do should be admired. Salman Khan is good at what he does. He should be admired.

What does Khan do? With his Khan Academy, he “delivers information.”

A new Time magazine article identifies him as a 35-year-old hedge fund manager turned YouTube professor who has recorded well over 3,000 digital lectures on math and other subjects, lectures that are online and available free.

Khan believes, says the article, that, with his “video-driven teaching method at its heart,” he has “stumbled onto a solution to some of education’s most intractable problems. Learners watch his

lectures as homework, then go to school where classroom teachers provide personalized help in learning the material he covered in his lecture. This reversal of the usual order of homework and schoolwork is called “flipping” the classroom.

Bill Gates is an enthusiastic fan of flipping — enthusiastic enough to have sent several million dollars Khan’s way. “I’d been, frankly, frustrated at how little creative work was being done to use the Web as a core component of instruction,” Gates told Time, “and when I saw this, I thought — yes, he’s got it.” Google, Netflix CEO Reed Hastings, and Irish entrepreneur Sean O’Sullivan have been similarly impressed and have added \$10 million to Gates’ several millions.

Is Khan right? Has he “stumbled onto a solution to some of education’s most intractable problems”?

Education has more than its share of those “solutions.” The fact that millions log on to his videos every day, that 15,000 classrooms make use of the lectures, that over 160 million videos have been watched since 2006, and that they’re used in 234 countries, suggests that he’s addressing some of those problems.

The afternoon and evening of July 3, 2012, I went with my wife to a family picnic in the back yard of the home of one of her grandnieces in Fairfield, Ohio. About 40 people, evenly split between adults and kids, attended.

Never having lived closer to her family than about 1,000 miles, and seeing most of them for only a few days a year, I couldn’t be a very active participant in the picnic’s catch-up-on-family-matters conversations. I mostly sat, listened, and watched.

Mostly watched Jonah. Jonah, two years and nine months old. I first noticed him squatted quietly watching his grand-uncle Gene fill dozens of water balloons to about tennis-ball size, tie them off, and hand them to older kids for their water war.

Jonah wasn’t a warrior. When the novelty of the game began to wear off, Gene handed him a filled missile and went off to eat, leaving a stool, the garden hose, a bucket, a sprinkling can, and a handful of unused balloons.

Jonah squeezed his balloon and watched it bulge out. Squeezed it again and again, clearly taken with the feel of it. Eventually, fascinated by the bulges, he began pinching them with a finger and thumb.

A small, protruding bulge gave him an idea. He put it in his mouth and bit down. The balloon exploded in his face, soaking the front of his T-shirt.

Unperturbed, and oblivious of others, he picked up the hose and tried to fit one of the unused balloons over the end of the plastic nozzle. Tried and tried and tried. No luck. Tried with a two other balloons. Still no luck. Giving up, he turned his attention to the spigot, attempted to twist it left and right and finally found that a hard, counterclockwise turn produced a gentle stream.

He studied the stream's trajectory, pointing it down, up, out, in toward his mouth. He ran water into the bucket, poured it into the sprinkling can, tilted the can, watched as it emptied, then repeated the process.

After 45 minutes or so, his father came, picked him up, swung him in a circle, pitched him up in the air, caught him, then carried him off.

I've no idea what line of work Jonah will enter, but I watched as he laid the groundwork for a career in hydraulic engineering.

Here's a serious problem. To set wise education policy, we need to know how kids learn most efficiently. Notwithstanding the present blind faith in standardized testing, we can only guess at an answer.

Jonah, exploring how a part of the world worked, was obviously learning, and doing so at a deeper level, at a more rapid rate, and with a greater probability of life-long retention than would have been the case had he been strapped in his high chair and lectured on the subject.

But how can we know the level of efficiency of that process? How much had he learned? What sort of test could attach a score to it? Was his curiosity, or a particular product of that curiosity, more deserving of measurement? What practical use could be made of a score for either?

The myriad ways we learn and the number of uncontrollable variables involved put usefully precise evaluation of learner performance far beyond reach. If we can't do it for one kid in one learning situation, we're kidding ourselves if we think that computer-scored tests can evaluate the quality of thought of millions of kids for a year. We've made commercially produced standardized tests so important we're blind to the enormity of their inadequacies and to the damage they're doing to the young, to the teaching profession, and to the society for which the young will soon be responsible.

There being no scientific way to determine with useful precision the relative efficiency of different ways of learning, the judgment of those closest to the process — experienced teachers — is surely the best guide.

I can speak with authority only for one experienced teacher: Myself.

I haven't the slightest doubt that the Number One way that most of us know what we know is what Jonah was demonstrating — autonomous, firsthand, curiosity-driven, wide-ranging, self-directed, trial and error, immediate feedback, personal experience.

Number Two in efficiency is learning through shared experience and the dialogue that ordinarily accompanies it.

The Number Three way we learn — from “delivered information” — is a distant third in teaching-learning efficiency.

If I'm right, we have schooling backwards. On orders from corporate interests and Congress, we've put nearly all of our education eggs in basket Number Three, the least efficient. A few educator outliers use basket Number Two, but their claim that small groups working on projects of their own choosing to learn like gangbusters is widely ignored. Basket Number One — the one Jonah demonstrated — is of no interest at all to policymakers.

A mix of Numbers One and Two would move learners to a whole new level of performance, but the big money is on delivered information, and Khan delivers. He's good. His work fills a niche. He'll help sell a lot of high-tech hardware. He'll hand a crutch to teachers who need it. He'll nudge students along who click on his lectures, provided they're ready to be nudged. He'll get rich, and help manufacturers of standardized tests and test prep materials do the same.

He'll also powerfully reinforce the theory of learning that, more than any other, has brought education to crisis — the belief that pre-packaged, delivered information is how we come to know most of what we know.

Yes, Khan is good. In the kingdom of the blind, the one-eyed man is king.

But a lecture is a lecture. The teaching limitations of delivered information are inherent and familiar to all experienced teachers who pay attention. Flipping classrooms will hardly make a dent in education's most intractable problems. The idea doesn't even come close to meriting the over-the-top head that Time's editors gave the article: "Reboot the School."

Intractable educational problems will begin to disappear when learners' rear ends are gotten off school furniture and allowed out where life is being lived, when learners' eyes are lifted from reference works passed off as textbooks and directed to the real world, when learners' minds are respected too much to treat them as mere storage units for secondhand, bureaucratically selected information.

Intractable problems in education will begin to disappear when kids are not just allowed to chart their own course, but are encouraged to do so, and given means to that end. Too bad there are no policymakers willing to promote that idea, and no rich philanthropists willing to put up encouragement money.

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