

# New Jersey City University

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Doctor of Education: Educational Technology Leadership

Principles of Educational Technology Leadership

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## Research Paper

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**Topic:** Khan Academy...changing the rules of education, or not?

## **Introduction**

Computers and other information technologies are extraordinary presentation devices for teachers; equally these are potent tools for students. The Internet offers a library of resources for students and teachers alike—so vast it defies the imagination, and nearly all students love using these technologies (Petty, 2009). A great deal of real-life learning now involves computers and one such emerging technological approach and educational tool that is on the rise is Khan Academy.

Salman Khan, a former graduate of MIT and Harvard University became the founder of Khan Academy because of his love for educational technology which started out by giving assistance to a cousin who was struggling in mathematics who was living in a different U.S. city. Khan Academy is an online platform offering educational videos and exercises in different content areas which help teachers meet educational challenges in their classrooms and other educational platforms in which they influence learners. Khan Academy has become a worldwide educational phenomenon (Light & Pierson, 2014). At present, it has gained a wide following with its free lessons on a variety of scientific and mathematical topics.

## **Benefits**

Khan Academy (see [khanacademy.org](http://khanacademy.org)) is a collection of educational, YouTube-hosted videos on the Internet, each about 10 minutes long and focusing on a particular concept in mathematics and the sciences. The content is presented by Khan Academy founder Salman in both auditory and visual form, with pictures and diagrams shown to help students grasp the concepts (Supplemental Online Products, 2014). The videos are also accompanied by randomly generated assessments and interactive challenges to test students' knowledge, each of which generates precise data for educators, including time spent on particular skills, correct percentages, and other measures that can be used to track progress and provide

additional support when students stumble. Further, Khan Academy motivates students to aspire to greater mastery of the subject matter by awarding “badges” to students who complete certain criteria, such as getting high scores on assessments for several similar subjects or watching an hour of video on a particular subject (Supplemental Online Products, 2014). Khan envisions that he can take school curriculums and classroom learning to another level.

### **Khan Academy and Flipping the Classroom**

The academy has a repository of more than 3,100 video “micro lectures” covering STEM subjects through YouTube. The videos are for students to watch at home and are meant to be paired with computer exercises found on the Academy’s website (Kundart, 2012). All of the material is free and ranges in topics from art history to economics and calculus to cosmology. Exercises are also included to ensure that students have comprehended the material. Flipping the classroom involves the strategy of sending schoolwork home in the form of short video lectures. Should Caribbean schools and colleges adopt this strategy? The answer to this question is directly connected to our developmental and technological future.

The future of education whether it is the United States or their neighbor the Caribbean is connected to the exploration of tools that will meet the needs of today’s student who will continue to cultivate and operate in the current digital revolution. Khan Academy has had such an amazing effect that even Bill Gates has used the free courses for his kids to help with their mastery of subjects such as math and science (Gates & Gates, 2014). As a result, Salman received extensive funding totaling in the millions from having the Gates Foundation and Google as sponsors.

### **Critiques of Khan Academy**

When interviewed by Time Magazine, Sal mentioned that he doesn't follow a script half the time he doesn't know what he's going to say (Ani, 2013). A teacher taking this approach would be hugely criticized, yet he gets huge backings from the big names in the field of technology. Arne Duncan praises Khan who admits to being unprepared, yet rants about how teachers are in dire need of professional development training and planning to be effective in the classroom. Effective teaching is incredibly complex and requires planning and reflection. It certainly requires more than two minutes of research on Google, which is how Khan describes his pre-lesson routine. Trained teachers give a lot of push back to Khan's work but he dismisses it as jealousy since they've been in the field for more than 30 years, yet he is being hailed as the world's teacher. Challenges from K-12 will not be solved with just a tablet and a YouTube account suggests Karim K. Ani. Instead the effort has to come from teachers who understand their subject/content area and how students learn (Ani, 2013, p. 25). Who will walk in the classroom daily and know what they are going to say and teach....simply because that what teaching entails and it is certainly what they are trained to do.

### **Re-imagining education through Khan Academy**

According to the online serial, International Business Times (2012, p. 1-3), there are six reasons why Khan Academy and its teaching app can revolutionize education. Below are reasons that were advanced:

- 1) *Learn everything from trigonometry to astronomy*
- 2) *Keep track of students*
- 3) *Its easy!*
- 4) *Khan Academy spans generations*
- 5) *Teaching in small chunks with technology*

6) *Big Names Backers* such as Google, Bill Gates and his wife Melinda, Reed Hastings, the Satter Foundation, just to name a few as he promotes education around the world.

## **Conclusion**

To conclude, Caribbean teachers should share in the vision of Salman Khan which looks at providing “free, world-class education for anyone, anywhere.” As the literature states, other professionals raised issues that Khan’s improvements and innovations are not new (Ani, 2013). He just presents them in a different way. Khan believes as reported by Seyedmonir (2013, p. 399) that the field of education can be improved when it is re-imagined and reformed into a one world school house. Seyedmonir opines that Sal feels that this can be addressed on two levels: an overhaul of the US (or westernized) education system and a global vision of how Khan Academy might be used in developing nations. Khan is changing the rules of education and as a professional it is hoped that this can be replicated in the Bahamian classroom. Salman Khan has created a vast library of resources and he should be given credit for his contribution to student learning and development.

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