HOW TO PREPARE THE NEXT GENERATION OF ENTREPRENEURS

Cultivating Innovative Risk-Takers Who Can Tolerate Ambiguity and Failure

Entrepreneurship has tremendous impacts on the economy by improving productivity, driving innovation and creating new jobs. According to the U.S. Small Business Administration's Office of Advocacy, 47.5 percent of U.S. employees work for a small business and in 2015 created 1.9 million net jobs.[1] But where does it all begin? It is never too early to plant the inspirational seed of entrepreneurship. A 2013 study shows that about 63 percent of primary school students introduced to the idea of entrepreneurship wanted to become an entrepreneur themselves.[2]

Entrepreneurs must take their breakthrough ideas to market while seeking to constantly improve. How can you cultivate the skills to accomplish this? Read on to learn how to build these natural tendencies to fuel the next generation of entrepreneurs.

BRINGING IDEAS TO LIFE: A KEY STEP IN ENTREPRENEURSHIP

Ideas are an entrepreneur's fuel. A great way you can encourage a young entrepreneur is by giving access to processes, materials, equipment and spaces that help turn ideas into physical reality. Maker-type spaces are wonderful platforms for accomplishing this. When using the proper curriculum, these spaces allow students to build perseverance, creativity, curiosity, teamwork, problem solving, expression and communication through hands-on experiences.

Based on a 2009 study, students who partake in hands-on activities, such as those presented in STEM Maker Lab®, are more likely to grasp complex concepts than those who learn in more traditional learning environments.[3] Hands-on learning is essential for creative minds to evolve. A future innovator will learn the skills needed to understand how and why a concept works.[4]

Failure is mentioned often throughout the maker movement because it is important for young entrepreneurs to understand that it is okay to fail because with failure, comes the chance to rethink, learn and grow from what went wrong. By guiding these fearless young innovators to ask the right questions to solve real-world problems, educators can help students realize that making mistakes is a necessary point on the path to success. As education researcher Youki Terada states, "Every mistake made is an opportunity to incorporate feedback into a new design, a way to solve challenges previously unforeseen."[5]

JEFF STURGESS SPEAKS ABOUT 'MAKING'

https://www.youtube.com/watch?v=-uIXJclJE2Y

In a related TED Talk, Jeff Sturgess explains how the makerspace has become a vital part of his life and the lives of those who enter it. He created an all-ages space for his community to gain hands-on experience with advanced technology while helping them discover their true potential. Sturgess mentions that these types of spaces help to create the skills necessary to excel in STEM careers, which include innovation, creativity and entrepreneurship. These spaces also develop what he calls "any-century skills" such as collaboration, communication and leadership abilities.

Sugata Mitra, researcher and professor of educational technology at the School of Education at Rhodes College, who studies the ability of young minds to learn with technology, found that "young children learn most effectively when they are engaged in interaction, rather than in merely receptive or passive activities."[6]

A boy peers through a telescope at an Invention Playground® program

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2. The benefit of entrepreneurship education on youth unemployment. (2015, July 17). Retrieved from https://childfinanceinternational.org/news-and-events/news-blog/entry/the-benefit-of-entrepreneurship-education-on-youth-unemployment.html
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4. Lynch, M. (2017, January 21). 10 reasons to create makerspaces in your school. Retrieved from https://www.thetechedvocate.org/10-reasons-to-create-makerspaces-in-your-school/
5. Terada, Y. (2016, July 18). Why making is essential to learning. Retrieved from https://www.edutopia.org/blog/making-is-essential-to-learning-youki-terada
6. Harnett, E. J. (2016, November 28). Why make? An exploration of user-perceived benefits of makerspaces. Retrieved from http://publiclibrariesonline.org/2016/11/why-make-an-exploration-of-user-perceived-benefits-of-makerspaces/

THE TOOLS OF THE TRADE

Similarly, technology continues to play an increasing role in innovation and in our daily lives. In 2015, about 73 percent of teens had access to smartphones; and this number has only been increasing.[7] Therefore, it makes sense that educators are beginning to embrace mobile learning. Mobile devices give students the digital tools to connect, communicate, collaborate and amplify their creativity. Kent State University research has found that "use of mobile computing devices may increase student motivation to learn and increase their engagement in learning activities."[8] This type of educational technology allows young minds to stray away from the confines of the classroom and dive into an endless supply of outside knowledge. By immersing students with up-to-date devices and technologies, you are preparing them for a world of innovation and success. As stated by University of Michigan Professor Elliot Soloway, "If we're going to prepare kids for the knowledge-work marketplace, then mobile learning has got to be what we prepare kids to use."[9]

While mobile learning is a key component of the maker movement, entrepreneurial thinking requires more than using the latest technology. It's imperative for students to look at the process of building an idea, such as what's required when inventing. Students shouldn't see ideas in the world as fixed—possibilities are often fluid and ever-emerging. Therefore, it's important to stay on top of technology trends so

students continue improving their technological skill sets. The foundation for true innovation and developing problem-solving skills is through hands-on learning. The National Inventors Hall of Fame® (NIHF) has spent over 40 years studying our Inductees' path to innovation success, and the one common denominator is that it almost always begins with design basics and creating with their hands.

For example, Steve Sasson, inventor of the digital camera, said his "Do Nothing Box" was his first invention which was built by placing a circuit in a shaving box. The box contained 10 neon bulbs that blinked in random order. His invention didn't solve a problem, but it represents his early endeavors in harnessing the power of science and the spirit of innovation.

STEM not only shows up as smartphones and laptops; it represents the variables used within testing to explore new products (science), the problem solving done to work through challenges (engineering) and the estimation of the time it takes to complete a project (mathematics). It is sometimes easy to forget that technology does not always come with a screen. In fact, in the right hands, regular household items can be turned into the next great idea. Without the integrated application of emotional intelligence, design thinking, persistence, collaboration and communication, we would not have the devices we rely on each and every day.

BUILDING THE SKILLS OF ENTREPRENEURSHIP

A valuable way you can educate young entrepreneurs is by building their strengths as a leader. By introducing leadership into their education, you are letting them set their own path for success early enough that it will stick. Let them lead a classroom lesson or take charge in a project. It's just as second-grade teacher Kayla Delzer says, "Embrace their knowledge and you will embrace their learning."[10] Leadership can be built through a student's participation in team-building-activities.

At the root of roughly 95 percent of classroom management issues in early education is a student's innate need to feel powerful as an individual. You can allow for power sharing among students in a classroom, and from there, the possibilities are endless. Furthermore, empowering students is always beneficial because it doesn't mean that there's "less power" for the teacher; rather, it can mean more possibilities for learning and leadership for everyone.[11]

7. Teens, social media, & technology overview. (2015, April 8). Retrieved from http://www.pewinternet.org/2015/04/09/teens-social-media-technology-2015/pi_2015-04-09_teensandtech_06/

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9. Mobility emerges as the next wave of K-12 education innovation. (n.d.). Retrieved from https://www.k12blueprint.com/sites/default/files/Mobility_Next_Wave_K-12_Innovation.pdf

10. Delzer, K. (2013, October 13). Reimagining classrooms: Teachers as learners and students as leaders. Retrieved from https://www.youtube.com/watch?v=w6vVXmwYvgs

11. Ferlazzo, L. (2012, February 14). Cultivating student leadership. Retrieved from https://www.edweek.org/tm/articles/2012/02/14/tln_ferlazzo_leadership.html

12. Munro, L. (2017, March 14). Creativity matters: Teaching process while encouraging experimentation | Creative Cloud blog by Adobe. Retrieved from https://blogs.adobe.com/creativecloud/creativity-matters-teaching-process-while-encouraging-experimentation/

GABRIELLE JORDAN WILLIAMS SPEAKS ABOUT HER BUSINESS

https://www.youtube.com/watch?v=EblQj_pZFlQ

Williams' story confirms that peer-taught lessons and leadership-based activities in an educational setting can develop leadership skills. Educators can build a student's self-confidence, curiosity and will to become a leader by using the right entrepreneurship teaching tools and strategies. Those tools include STEM education. Being an innovator takes practice, and education programs that utilize immersive, collaborative hands-on challenges keep students' interest and participation levels at an all-time high.

As an expert in innovation, NIHF is the only organization with a direct connection to insights from world-changing inventors. The organization built an Innovation Ecosystem to introduce children to the creative problem-solving process early on, and it continues developing that innovator spirit into their adult life in hopes to one day induct one of their students into the Hall of Fame as a world-changing innovator and entrepreneur.

For more information, visit www.invent.org

78%

Student-led learning is a great way to teach knowledge in an innovative way. According to recent research conducted by Adobe, 78 percent of Generation Z (individuals born from the mid-1990s to the early 2000s) believed that the most effective way to learn is by doing.[12]