



LEARNING WITH A PURPOSE:

Preparing Today's Students to Navigate
an Increasingly Ambiguous Future

By Evo Popoff

Foreword by 2018 National
Superintendent of the Year,
Dr. David Schuler

Produced by

W/A Whiteboard
Advisors

Commissioned by

uncharted learning. 

WHAT'S OLD IS NEW AGAIN?

Foreword by Dr. David Schuler

It has become fashionable in education circles to bemoan the disconnect between education and the rapidly evolving world of work. Because the shelf life of skills is shrinking and robots are “coming for our jobs,” we recite the (oft discredited) claim that schools today are preparing students for jobs that — for the most part — don’t exist yet (in classrooms that have failed to keep pace). But what does it mean for a student to be ready for a world where, even if emerging technologies aren’t creating legions of new jobs, they are fundamentally changing the nature of jobs, both old and new?

We know that strong foundations in technology are important for a future where a command of data science, machine learning, and artificial intelligence will enable graduates to thrive in the roles that now top LinkedIn’s annual list of emerging jobs. But what if the core skills and competencies students need to thrive and succeed in the midst of ambiguity aren’t new? What if, as a recent analysis from Strada Education Network and Emsi found, the graduates that are poised to succeed in the job market are those who combine targeted technical competencies with broad human skills?

In 2015, AASA, The School Superintendents Association, launched an initiative that was designed to give schools new, research-based benchmarks that focus on ensuring that students are not just college- and career-ready, but also life-ready — in ways that transcend scores on standardized tests.

Redefining Ready! was intended to change the narrative about public education, offering lawmakers, journalists, and other observers a deeper way to understand systemic success. In the process, it laid out — for the first time — criteria that educators could easily apply to their work, offering what amounts to a new kind of pathway to readiness in an ever-changing world.

The initiative defined college-ready students as those who meet a series of clear — and expected — academic indicators or standardized testing benchmarks, rooted in measurements like GPA or success on Advanced Placement exams, dual-credit college English or math, or International Baccalaureate exams.

Students are considered career-ready if they have identified a career interest and meet several behavioral and experiential benchmarks, such as 90 percent attendance, 25 hours of community service, or success in a dual-credit career pathway course.

And students are life-ready if they leave high school with a growth mindset and the grit and perseverance to tackle and achieve their goals.



Underlying this entire effort is a simple belief: the key to ensuring young people are successful is not just helping them achieve academic success, but instilling in them a sense of **purpose** and a way to help them navigate uncertainty.



What does it mean for a student to be ready for a world where, even if emerging technologies aren't creating legions of new jobs, they are fundamentally changing the nature of jobs, both old and new?

Dr. David Schuler, 2018 National Superintendent of the Year

This paper makes the case that purpose engenders lifelong learning and, further, that it equips students with the motivation and the tools needed to navigate an ambiguous world.

It suggests that what's new — and needed — may not be so different after all. It explains why shifts in federal policy under the Every Student Succeeds Act are opening the door to practices that great teachers have always known matter.

It shares first-hand accounts of educators — like me — who have found that programs like Uncharted Learning's INCubatoredu cultivate valuable pathways to providing students with a more purpose-driven experience. And it tells the story of Martin Dimitrov, who joined forces with classmates to create a successful startup based on a real-life, everyday problem, and offers an eloquent testimonial that speaks to the power of purpose: "The reason I got up in the morning and was excited to go to high school was because of my INCubatoredu class."

Dr. David Schuler is a past AASA president and the 2018 National Superintendent of the Year. He is the Superintendent of Township High School District 214 in Arlington Heights, Ill.



EXECUTIVE SUMMARY

- We know that strong foundations in technology are important for a future where a command of data science, machine learning, and artificial intelligence will enable graduates to thrive in the roles that now top LinkedIn's annual list of emerging jobs. But ensuring that our students leave school with a sense of purpose — with fulfilling experiences and an understanding that they have the power to explore their passions and interests — may be equally important.
- In the spring of 2012, in the Illinois suburbs northwest of Chicago, entrepreneur Michael Miles and longtime friend Karl Fruecht were musing about the cliché (though rooted in reality) that so many bright college graduates seem to end up living in their parents' basements.
- Clearly, those young adults had not had the opportunity to make the necessary connections between their academic interests and the ways they could actually turn those interests into fulfilling careers. Reflecting on his own childhood during the conversation, Miles realized the central role that his family's dining room table had played in charting his path as an entrepreneur.
- Could schools, Miles and Fruecht thought, create a way to help all students better understand not just how businesses work, but also how their own passions and interests could inform their professional aspirations? Could schools provide students with experiences, like opening their own business or running a store, that could open their eyes to new career fields and help them develop a sense of purpose as they moved past high school, to college and beyond?
- In 2013, educators in Illinois took a gamble on their idea for a small, immersive learning experience designed to bring a greater sense of purpose to a cadre of high school students. Though founded by an entrepreneur, the program — called INCubatoredu — was about more than entrepreneurship. It was about preparing young people for the rigors of a changing global economy. It was about creative problem solving, critical thinking, and resilience.
- In the years since, that INCubatoredu experiment has grown, expanding to 150 schools in 26 states and Mexico, leaving in its wake a growing, dedicated alumni base of learners —and creators — who are equipped to change the world. Now called Uncharted Learning, its programs are rooted in the belief that guiding students through building a business in their community from the ground up provides the sort of authentic, high-stakes, real-life experience that educators — and students — crave.
- New flexibility under the federal Every Student Succeeds Act and the law's focus on providing students a well-rounded education — beyond its predecessor's narrow focus on math and English Language Arts — provide opportunities for states, districts, and schools to pursue innovative instructional models such as experiential learning, entrepreneurship,

and STEM programs. Meanwhile, mounting pressure from industry leaders at the state and national levels is further forcing decision-makers to explore innovative programs that can better prepare tomorrow's workforce.

- This paper profiles the experiences of some of the now 150 U.S. high schools collaborating with Uncharted Learning in response to new, and rising, pressures to help high school students develop a sense of purpose, nurture an appreciation of lifelong learning, and prepare for a future where change is the norm.

You have to do what you dream



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Named State Policy Maker of the Year by the State Education Technology Directors Association (SETDA), Evo Popoff ranks among the small handful of education policymakers who have worked as an education entrepreneur and executive within the private sector.

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Before beginning his career in education, Evo practiced law at McDermott, Will & Emery where he worked on labor and employment, antitrust, and general corporate issues.

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Uncharted Learning is a not-for-profit organization with a mission to kick-start students for life by equipping them with real-world skills. We help inspire students to discover their passions, strengthen their capabilities, and create their own futures. Our programs offer authentic, rigorous entrepreneurship experiences to students in 250 schools across the United States and Mexico.



Whiteboard Advisors brings an unmatched understanding of policy and market trends to work on behalf of the organizations, employers, and entrepreneurs working to promote social and economic mobility in a knowledge economy. Our team of researchers, policy wonks, and storytellers is reimagining the way we learn, work, and live.

ACKNOWLEDGEMENTS

We are grateful for the expertise of friends and practitioners who have provided valuable support and insights to the authors in the development of this paper, including:

Dr. David Schuler

Superintendent of Township High School
District 214
Founder of Transeo

John Couch

Former Vice President of Education, Apple
Co-author of *Rewiring Education*

Steve Arnold

Co-Founder
George Lucas Education Foundation

Kristin De Vivo

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George Lucas Education Foundation

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INTRODUCTION: THE FUTURE IS UNCHARTED



America's most interesting jobs are going to be ones that haven't been done before. The opportunities are bigger; the bureaucracy smaller. Find (or invent!) one of those jobs, and you control your own destiny. Your best ideas will take hold faster; your mistakes will disappear from sight more quickly. Such opportunities exist not just at start-ups, but in thousands of big companies too. Old work practices are fading away. New opportunities are arising, and fresh perspectives are needed.

George Anders, You Can Do Anything: The Surprising Power of a "Useless" Liberal Arts Education

In recent years, rapidly developing technology has redefined the competencies that our students will need to thrive, as demand for not just advanced cognitive and sociobehavioral skills -- but skill combinations associated with greater adaptability continues to grow.¹

But ensuring that our students leave school with a sense of purpose — with fulfilling experiences and an understanding that they have the power to explore their passions and interests — may be equally important. Research shows that having a sense of purpose is good for the mental and emotional well-being of young people, and it may even help them live longer. As middle school principal Matt Howell puts it, "Academics without purpose can be an exercise void of substance."² Purpose provides meaning to academic learning and motivates young people to become lifelong learners — a mindset that is quickly becoming table stakes in a rapidly evolving world of work.

Programs that encourage and leverage students' deep interests have come in many forms over the years. More recently, they have taken the shape of sophisticated project-based learning schools. Entrepreneurship programs provide students with opportunities to create solutions that have meaning to them and contribute to their communities. One study found that college students who took two or more core entrepreneurship electives were much more likely to become entrepreneurs.³

These programs also give students something they crave: authenticity. They allow students to embark on an entrepreneurial journey that challenges them to solve problems, fail, pick themselves up, and keep going. Young people are itching for this kind of challenge. "It is these relevant experiences that challenge students to solve real problems in their communities and the world," writes John Couch, Apple's first Vice President of Education and co-author of *Rewiring Education: How Technology Can Unlock Every Student's Potential*. "These experiences help fuel their drive to be lifelong learners and innovators."

In 2013, educators in Illinois took a gamble on an idea for a small, immersive learning experience designed to bring a greater sense of purpose to a cadre of high school students.

Though founded by an entrepreneur, the program — called INCubatoredu — was about more than entrepreneurship. It was about preparing young people for the rigors of a changing global economy. It was about creative problem solving, critical thinking, and resilience.

In the years since, that INCubatoredu experiment has grown, expanding to 150 schools in 26 states and Mexico, leaving in its wake a growing, dedicated alumni base of learners — and creators — who are equipped



to change the world. Now called Uncharted Learning, its programs are rooted in the belief that guiding students through building a business in their community from the ground up provides the sort of authentic, high-stakes, real-life experience that educators — and students — crave. It connects students with local professionals who serve as volunteer mentors and content coaches. Real entrepreneurs and business experts guide student teams through the process of developing a business concept and executing it in the real world.

Through a yearlong course, students ideate, iterate, and develop their own product or service, often solving a stubborn problem identified by the students themselves, like the infuriating challenge of stereo headphones that won't untangle or irritating challenge of hoodie drawstrings that disappear inside the hood. They often set their sights on bigger, more consequential problems, however, such as replacing harmful plastic planters, helping senior citizens connect with family, or providing relief to people living with food allergies.

The effort culminates in a final pitch event in which they seek real investors for their new startup.



It is these relevant experiences that challenge students to solve real problems in their communities and the world. These experiences help fuel their drive to be lifelong learners and innovators.

John Couch, Apple's first Vice President of Education and co-author of Rewiring Education: How Technology Can Unlock Every Student's Potential



Importantly, these courses are not games, simulations, or case studies. Students who complete the program emerge with a completed business model, a competitive analysis, a financial model, a minimum viable product, and plans for future funding and communications. The program gives students real-life experience in creating, testing, iterating, and improving their ideas. It's a true trial in entrepreneurship, and failure is expected.

But students are also guided through the failure, with mentors always asking: *Why didn't something work? What did work? What can you learn for the next iteration?* Students learn to take risks, trust advisors, and learn from mistakes. "We teach them how to fail," Karl Fruecht, Uncharted Learning's co-founder, said.⁴

It's a skill that will only grow in importance as technology continues to reshape entire industries. The careers many students envision for themselves could be substantially different upon graduation. Some may be extinct. Students must learn to be comfortable being uncomfortable. They must learn how to stumble, recover, and keep moving forward and learning. And they must do so with purpose.

SCHOOL IN A TIME OF ACCELERATING CHANGE

Educators have known for decades that purpose plays an essential role in learning.

Bedrock research in “intrinsic motivation,” dating back to the 1970s, shows that young people are naturally inquisitive and eager to learn, but they need schools that nurture a sense of competence, autonomy, and relatedness.⁵ More recent research on online learning further demonstrates the role purpose can play in motivating lifelong learning.

Yet schools, often so focused on achievement, rarely follow this advice. The realities of today’s world of learning and work may soon force them to change how they do business.

Today’s young people are coming of age as accelerating rates of change are overtaking nearly every facet of our lives. Technology is rapidly shrinking the shelf life of job skills, creating the need for a new kind of education that helps students learn with purpose and equips them to become creators and lifelong learners who are ready to navigate an increasingly complex future.

Thanks to the ubiquitous nature of the internet and smartphones, young people now enjoy unprecedented access to whatever interests them. Technology is rapidly changing the way young people interact — with friends, strangers, parents, and family. It is easier than ever for an individual to change the world around them. Schools are struggling to keep up.

New Jersey educator and author Will Richardson has called our current

technological era a “moment of abundance.” Such an abundance, he argues, makes real-life, inquiry-based learning both easier and more important for students. As a result, he writes, schools must prepare students to be learners who can “successfully wield the abundance at their fingertips.”⁶ Unfortunately, many schools are doing just the opposite. Recent research unambiguously points to an epidemic of boredom, with millions of students now viewing high school as irrelevant and pointless drudgery.⁷

Few young people begin their educational journey feeling so disconnected. In elementary school, this research shows, the vast majority of students — nearly eight in 10 — say they’re engaged in classwork. They’re attentive, inquisitive, and generally optimistic about their learning.



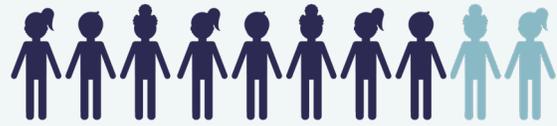
However, by the time they enter high school, something disturbing has occurred: just four in 10 students are engaged. For students who don't see themselves graduating on time and attending a top college or university, those feelings of ennui are even stronger. As Harvard education scholar Jal Mehta recently observed, "There's no big external motivating force in American education, except for the small fraction of kids who want to go to the most selective colleges."⁸

But what about the rest?

Data from the most recent High School Survey of Student Engagement, conducted by the Indiana University Center for Evaluation and Education Policy, confirm Mehta's assertion. Researchers found that just one-third of students go to school because he or she enjoys being there. Among students who have considered dropping out, most cite a key culprit: there is very little to engage them in most classes, and few real, meaningful demands on their abilities.

The education journalist Amanda Ripley has spent years examining how U.S. high schools compare to schools worldwide. When she surveyed international exchange students who spent time in U.S. schools, she found that 90 percent of them said classes here were easier. Seven of 10 Americans who studied abroad agreed. "School in America was many things, but it was not, generally speaking, all that challenging," she wrote. "The evidence suggests that we've been systematically underestimating what our kids can handle, especially in math and science."⁹

ELEMENTARY SCHOOL



8 in 10

students are engaged in classwork

HIGH SCHOOL



4 in 10

students are engaged in classwork

(Source: Zachary Jason, "Bored Out of Their Minds," *Harvard Ed. Magazine*, Winter 2017, <https://www.gse.harvard.edu/news/ed/17/01/bored-out-their-minds>.)

In another study of U.S. high school dropouts, two-thirds said they would have worked harder if more had been demanded of them.¹⁰ Even as they eye the exit doors, students are giving us a clear message about what would keep them engaged: opportunities to think creatively, to collaborate, and to solve tough problems that don't have clear answers.¹¹

They need only someone to listen.

“A DIFFERENT KIND OF EDUCATION”

In the spring of 2012, in the Illinois suburbs northwest of Chicago, entrepreneur Michael Miles and longtime friend Karl Fruecht were musing about the cliché (though rooted in reality) that so many bright college graduates seem to end up living in their parents’ basements. These were hard-working students who had achieved academic success but struggled to translate those achievements into “real world” activities that could not only advance their personal interests, but also earn them a living. Clearly, those young adults had not had the opportunity to make the necessary connections between their academic interests and the ways they could actually turn those interests into fulfilling careers.

Reflecting on his own childhood during the conversation, Miles realized the central role that his family’s dining room table had played in charting his path as an entrepreneur. His family conversations were rich in discussions about business dynamics and strategy, and they introduced him to concepts and mindsets that would prove valuable later in life. In coming to this realization, Miles also understood just how fortunate he had been. His mother’s business experience had made these conversations possible, but many other students may not have had the same opportunity to be exposed to similar experiences and discussions.

Could schools, Miles and Fruecht thought, create a way to help all students better understand not just how businesses work, but also how their own passions and interests could inform their professional aspirations? Could schools provide students with

experiences, like opening their own business or running a store, that could open their eyes to new career fields and help them develop a sense of purpose as they moved past high school, to college and beyond?

And so, Uncharted Learning was born.

At first, the idea was to focus on students attending school at the margins — in other words, those most likely to drop out. But they soon realized that virtually every student was somehow at risk. “What we thought we were doing was benefiting the scrappy ‘C’ students,” Fruecht said. What they did not initially understand was that there were plenty of “A” students who may have seemingly been progressing normally, but who lacked the support, guidance, and ability to recover when their well-laid college or career plans failed.

Hagop Soulakian, who helped create the INCubatoredu curriculum and brought the inaugural course to Illinois’ Barrington High School in 2013, came to Uncharted after a career as a trader at the Mercantile Exchange of Chicago. “It’s a non-traditional class,” he said, so they were looking for someone who was willing to teach in an untraditional manner.¹²

While most high school classes focus on reading texts, working through problem sets, and participating in class discussions, INCubatoredu is built around experiences. Whether those experiences in the classes are good or bad, Soulakian said, is entirely up to the student and their team. “As long as you learn from the experience, you’re going to get that return on investment at some point,” he said.

In the course of a year, the class teaches collaboration, time management, and communication skills — all key tools for entrepreneurs, and all features that are absent from many high school classes. The program, Soulakian said, allows students to research, evaluate opportunities, negotiate, advocate for themselves, and develop maturity.

That stands in sharp contrast to how business education plays out in most high schools, said Dr. Tom Leonard, superintendent of the Eanes Independent School District in Austin, Texas. “Most high schools are teaching a business curriculum that is old,” Leonard said. “And it is tired, and it is extremely traditional. The world changed and business curriculum, and business education in high schools, didn’t.”¹³ Much of this lack of change, he said, stems from a fear of failure among educators. “Learning how to embrace failure, learning resiliency, is to me much more important in the long run than learning some of the fundamentals of business,” Leonard said.

Kat Mena, a 2016 Barrington High School graduate, said the INCubatoredu program was quite simply “a different kind of education,” one that changed her conception of what learning can be. “If all subjects were able to incorporate something like this kind of style, it’d be a game-changer for everybody,” she said.¹⁴

In high school, Mena was part of a team, along with her sister Laura, that developed

an easy-to-use guard for athletic cleats, called CleatGuard. The team worked hard to develop the product and even harder to sell the idea to investors. Laura Mena, who’s now studying finance at Miami University of Ohio, said it may still be the hardest she’s ever worked on an academic project.¹⁵

For some students, the experience can be life-changing.

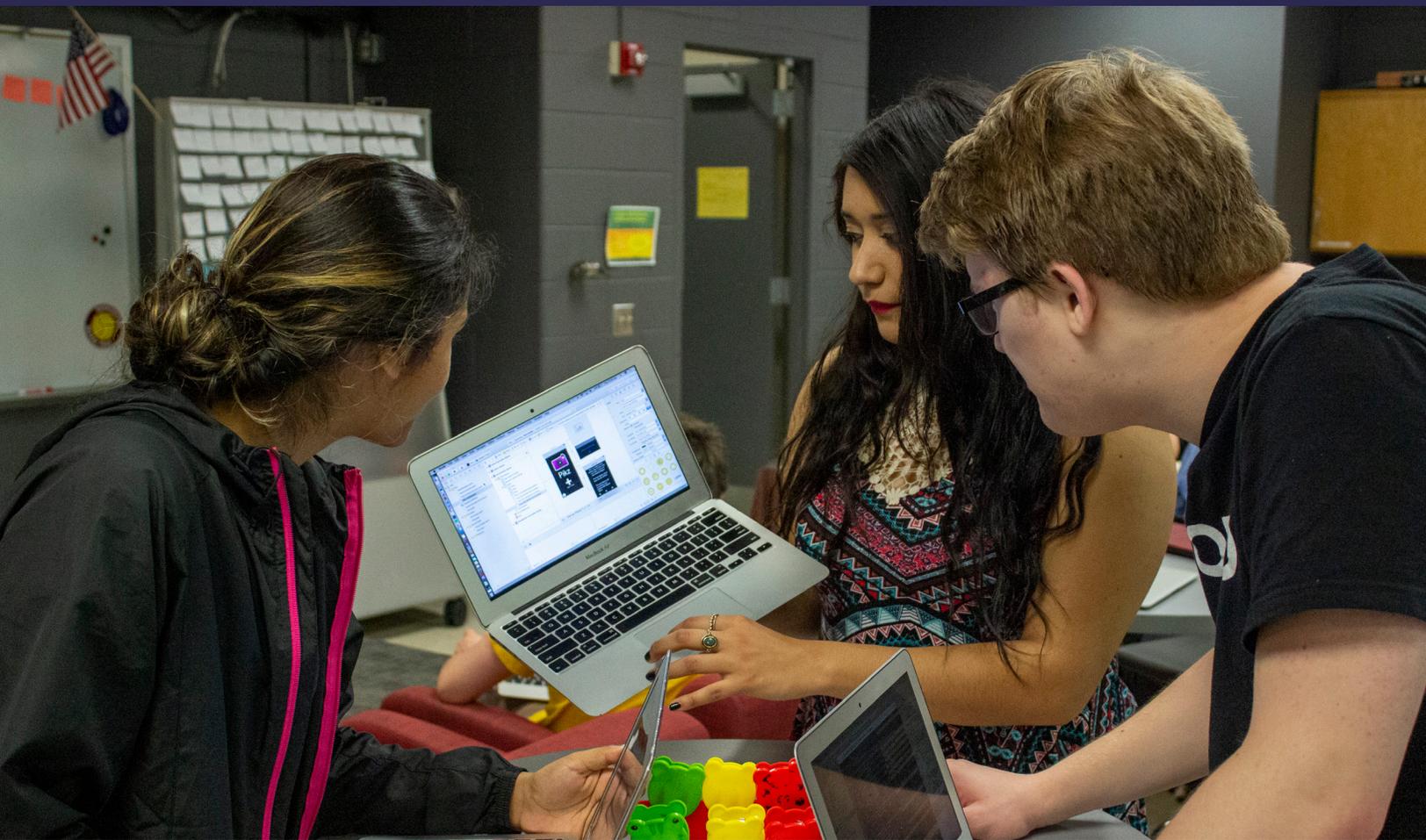
An early alumnus of the program, Martin Dimitrov, went on to co-found the startup SnapClips, which manufactures lightweight, easy-to-use collars for weight training. He and his classmates developed the idea in their INCubatoredu class after realizing they were frustrated by the constant need to search their school gym for the required collars whenever they wanted to swap in new weights. They modeled their steel-and-fabric prototype after the slap bracelets once popular among children.

Participating in INCubatoredu, Dimitrov and his team earned a \$2,500 award, which he used to apply for a patent on the design. It was a smart move: another inventor applied for a similar patent just three weeks later. After a successful Kickstarter campaign in 2016, which helped the company raise more than \$25,000, the SnapClips team spent 18 months developing the product and secured funding on “Shark Tank” in 2018.¹⁶



Learning how to embrace failure, learning resiliency, is to me much more important in the long run

Dr. Tom Leonard, Superintendent, Eanes ISD, Texas



Reflecting on the origins of his success, Dimitrov recalled the sense of purpose the program had given him as a student. “The reason I got up in the morning and was excited to go to high school was because of my INCubatoredu class,” he said.

While few program alumni will likely take their final products as far as Dimitrov and his team, the experience of doing something real stays with all students. They know, and are inspired by, the fact that it is not pretend.

There are other benefits, too. Leonard, the Eanes ISD superintendent in Austin, said the program engages community members whose connection to their local public schools may be frayed or, in many cases, non-existent. In his district, as many as 70 percent of

adults don’t have children in school. Bringing professionals into schools to mentor students and help them develop their products brings the different facets of a community together to support one another.

Often, Leonard said, the adult professional advisors who work with the students find themselves reinvigorated with a stronger sense of purpose as well. “It’s boring for them at parties and dinners to discuss their work,” he said. “They’ve been doing that for the last 20 or 30 years of their lives. This is something new to them. They have not been in a high school teaching kids or working with a group of kids who have an idea that they are excited about as well. So they wind up creating a buzz that is pretty amazing.”¹⁷

PREPARING STUDENTS FOR AN UNCERTAIN FUTURE

Uncharted Learning now operates INCubatoredu in more than 150 U.S. high schools, but that number remains just a drop in the bucket of our nation's 38,000 high schools.¹⁸ It will take many more schools and many more programs doing this kind of work — providing students with purpose and an appreciation of lifelong learning — to prepare our students for the future.

As automation continues to dramatically impact the workplace, continuous learning and adaptability will be essential elements of the future workforce. Predicting the jobs of tomorrow is a difficult, if not impossible, task. While educators cannot know exactly how to prepare students for these roles, they can help their students think, act, create, and employ tools so they can be successful in rapidly evolving contexts. A student's education must encompass critical thinking, creativity, agency, and entrepreneurship to be viable.

New flexibility under the federal Every Student Succeeds Act and the law's focus on ensuring students receive a well-rounded education — beyond its predecessor's narrow focus on math and English Language Arts — provide opportunities for states, districts, and schools to pursue innovative instructional models such as experiential learning, entrepreneurship, and STEM programs.

Meanwhile, mounting pressure from industry leaders at the state and national levels is

further forcing decision-makers to explore innovative programs that can better prepare tomorrow's workforce.

The pressure these industry leaders feel led the U.S. Chamber of Commerce Foundation to release its report titled *Competing on Innovation: Disrupting the Education Enterprise to Build Tomorrow's Talent, Today* in which the organization promotes experience-based learning models — similar to INCubatoredu — that are grounded in business challenges and guided by business partners. As Jason Tyzsko, the Executive Director of the U.S. Chamber of Commerce Foundation, puts it, "The increasingly dynamic global labor market has made it more urgent to create robust talent pipelines that prepare learners and workers with the skills employers need. To address shifting skill needs in the coming years, it will be critical to provide students with high-quality, real-world applied learning experiences that prepare them for success when they enter the workforce."

Even as educators and policymakers struggle to respond, nonprofits like Uncharted are pushing to help schools make the transition. District and school leaders can incorporate experiential learning capstone experiences like INCubatoredu, giving students an intentional space to explore their passions and develop their sense of purpose.



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CONCLUSION: PURPOSE AND THE FUTURE OF WORK

Today's headlines are redolent with dire predictions about the future of the workforce. As technological change reshapes our economy, fears about widespread job disruption, the rise of artificial intelligence, and persistent equity gaps in fast-growing industries tend to dominate the discourse among employers, policymakers, and commentators. Will America's schools keep up with the accelerating pace of change?

However, there is also reason for optimism. The same organizations predicting these shifts also understand that uniquely human skills like creativity, problem-solving, and collaboration are only becoming more important in this dynamic labor market. As the World Economic Forum **put it**, "demand for soft skills is likely to continue to increase as automation becomes more widespread." And while we may never fully understand what the jobs of the next decade will look like, we already know how to help cultivate the adaptability, independence, and entrepreneurial spirit that students will need to compete and succeed in a changing economic landscape.

The stories told throughout this report are a testament to the fact that, for today's students, purpose matters. Encouraging students to pursue their interests and passions — and giving them the framework and skill set to do so effectively — can lay the foundation for a society that can thrive in an increasingly global and interconnected world.



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