The Case for Youth Entrepreneurship Education

Dr. Luz Cristal Glangchai
Founder, VentureLab
November 2019
The Rise of the Creative Economy

The Rise of the Creative Class, Richard Florida
Entrepreneurial Education Key to Student Success

• 50% of the workforce will be independent or freelance within a decade\(^{(a,b)}\) – students need ability to create their own careers

• Inherent in an innovation economy – non-cognitive skills - the ability to be creative, adaptable, and entrepreneurial, etc...

• Today more than 90% of employers identify entrepreneurial skills as important\(^{(c)}\) and 1 in 3 employers seek entrepreneurial experience in hires\(^{(d)}\).

\(^{(b)}\) MBO The State of Independence in America Report
\(^{(c)}\) Freelancing in America: 2017 Report Edelman Intelligence
\(^{(d)}\) The need to address noncognitive skill in the education policy Agenda. Garcia

Millennial Branding Student Employment Gap Study 2012
Rapidly Changing Technology and Workplace

The World Economic Forum reports that we are in the midst of a Fourth Industrial Revolution. Technology and careers of the future are changing at a rapid pace.

65% of children entering primary schools today will likely work in roles that don’t currently exist.

The hard skills we are teaching kids now, may not be relevant for the future.

Skillsets of the Future

- Creativity
- Lateral Thinking
- Pattern Recognition
- Design Mindset
- Empathy
- Adaptability
- Problem Solving
- Social Intelligence
- Entrepreneurship

Entrepreneurship is more than simply wanting to start a business

Entrepreneurship = Mindset + Skillset

We are ALL entrepreneurs!

• Artists/Musicians - need to know how to market and sell their art
• Doctors - may have their own practices
• Intrapreneurs - innovate from within companies
• Teachers - have to be resourceful, develop and implement courses and advocate for students
Entrepreneurship: 21st Century Skills and Social Emotional Learning

- Problem-solving
- Empathy
- Self-Confidence
- Optimism
- Opportunity seeking
- Failure Resilience
- Growth Mindset

4 Cs + 2

- Creativity
- Critical Thinking
- Collaboration
- Communication
- Citizenship
- Culture
Entrepreneurship: Tying together all the disciplines

- Integrated, interdisciplinary approach to learning
- Provides ‘hands-on’ applications
- Relevant and real-world experience for students
Entrepreneurial Learning Create Opportunities and Careers Across Industries

- Plant biology – developing hydroponics kits and creating a plan to sell hard-to-get produce
- Geography or social studies – developing products to help people in arid regions get potable water
- Robotics – developing devices that assists doctors in operations
- Physics or materials – developing ways to make solar energy more affordable using 3D printed materials
- Coding – developing an app that help fights obesity
- Drama – writing, producing and delivering a performance
- Art – producing and sell artwork
Entrepreneurship: Students and School Communities

- Envision future career paths or create their own
- Apply knowledge and passion to real-world problems
- Collaborate and communicate as part of a team
- Increases self-efficacy/confidence in ability to learn and take on challenges
- Creates a culture of experimentation and curiosity and failure-resistance
- Creates a culture of mentorship and continued learning
- Engages the whole school community
Current State of Youth Entrepreneurship Education
Every Student Succeeds Act (ESSA), passed in 2015, makes room for the teaching of non-cognitive and socio-emotional skills, such as skills that drive an entrepreneurial mindset.

**Policy Driver:**

**Entrepreneurship Education Opportunity Growth in States**

- States reporting K-12 standards, guidelines or proficiencies in entrepreneurial education in K-12:
  - 2009: 19/50
  - 2015: 42/50

- States reporting entrepreneurship education courses required to be offered in high school:
  - 2009: 5/50
  - 2015: 18/50
Entrepreneurship Education Opportunity Growth in States

Policy Driver:
In 2018, reauthorization of the Carl D. Perkins Career and Technical Education Act requires states to offer entrepreneurship education in their career and technical education (CTE) pathways.

States reporting K-12 standards, guidelines or proficiencies in entrepreneurial education in K-12
- 49/50 2019

States reporting entrepreneurship education courses required to be offered in high school
- 27/50 2019

Source: Junior Achievement – The States of Entrepreneurship in America 2019
Gallup Student Survey on Entrepreneurship

- 16% agreed that they would invent something that changes the world, 24% strongly disagreed
- 25% strongly agreed they would start a business
- 13% strongly agreed they are learning how to start and run a business, 37% strongly disagreed
- 43% agreed that their school offered classes on how to run a business

2015 Gallup Student Poll - Engaged Today Ready for Tomorrow
Widening Entrepreneurial Ambition Gap Between Younger and Older Students
Why Entrepreneurship Education is Still Not Widely Implemented

1. Mandatory testing and evaluation of school performance based on achievement in skills;\(^{(a)}\)

2. Strength of traditional disciplines among education groups who have primary responsibility for writing curriculum;\(^{(a)}\)

3. Lack of understanding among educators of the operations and importance of entrepreneurship;\(^{(a)}\)

4. Standards, guidelines and classes are available and offered, but students don’t have to take an entrepreneurship class.\(^{(b)}\)

5. Ecosystem - To succeed for students and educators, entrepreneurship education must interact with its community, outside as well as inside the school.

\(a:\) An Assessment of Youth Entrepreneurship Programs in the United States Teresa A. Daniel 2005
\(b:\) Junior Achievement – The States of Entrepreneurship in America 2019
OST is Key for Workforce Readiness

59 percent of surveyed workers agreed or strongly agreed that they developed most of the skills they use in their current job outside of school.

2013 Gallup/Microsoft/Pearson Study
Early Exposure Promotes Equity and Opportunity in Workforce Pipeline Development

• Studies show that exposure to innovation and entrepreneurship during childhood has significant causal effects on children's propensities to become inventors or entrepreneurs $^{(a-c)}$ by up to 60% $^{(d)}$.

• Children from high-income (top 1%) families are ten times as likely to become inventors as those from below-median income families due to exposure to high innovation-rate environments $^{(c)}$ and parental role-models.

• Exposure to innovation and entrepreneurship at a young age is important to prepare students for future success and to close the inequality gap, in income, race, gender, etc…$^{(c)}$

---

Selected Youth Entrepreneurship Education Programs Student Impact in 2018-2019

- Junior Achievement: 20,050 students
- Lemonade Day: 58,770 students
- VentureLab: 60,325 students
- YEI: 70,000 students
- BizWorld: 63,753 students
- NFTE: 100,898 students

370K+ Students Reached Yearly

Data taken from annual reports and impact data on individual group websites
Measuring Impact on Youth Entrepreneurship

Most of the data on the effectiveness of youth entrepreneurship education programs focuses on relatively short-term program outcomes from groups like NFTE and Junior Achievement.\(^{(a)}\)

---

### Student Outcomes of NFTE In-School Programs \(^{(b)}\)

- **44%** INCREASED OCCUPATIONAL ASPIRATIONS
- **32%** INCREASED INTEREST IN ATTENDING COLLEGE
- **8.5%** INCREASED LEADERSHIP BEHAVIOR

---

\(a\): Aspen Institute – Youth Entrepreneurship Strategy Group  
\(b\): The Case for Youth Entrepreneurship Education – The Federal Reserve Banks of Kansas City
Data Collection for Metrics/Outcomes of Youth Entrepreneurship Programs

- Demographics (Student, Educators, Schools, Programs)
- Number of Students, Schools, Teachers, Partners reached
- Overall Academic Outcomes – engagement in school, test grades, etc.
- Aspirational Careers and Career Outcomes – interest in STEM, starting a business, etc.
- Entrepreneurial Process/Skillset Mastery – business models, opportunity analysis
- Entrepreneurial Mindsets/Behaviors – resourcefulness, opportunity seeking, creative problem solving, confidence, failure-resistance
Tools for Measuring Entrepreneurial Programs, and Mindset and Skillset

• As youth entrepreneurship education is nascent in K-12, there are not many available tools for program evaluation.

• Three entrepreneurship-specific tools:
  • NFTE: Entrepreneurial Mindset Index (EMI)™
  • BizWorld Student Evaluations
  • VentureLab Youth Entrepreneurship Program Evaluation Tools

• Related Resource: The Pear Institute – STEM and SEL assessments
NFTE: Entrepreneurial Mindset Index (EMI)™

• The Entrepreneurial Mindset Index (EMI)™ measures student mastery in eight core domains of entrepreneurial thinking.
• Students receive a personalized report of their entrepreneurial mindset upon completion of the EMI.
• Available for students and educator in NFTE programs.
BizWorld Student Assessments

- Pre and Post survey assessment of student business skillsets
- Built into BizWorld curriculum

VentureLab Youth Entrepreneurship Program Evaluation Tool

- Mindset and Skillset Instructor self-evaluation (piloted 2019)
- Mindset and Skillset Student self-evaluation (piloting 2020)
- Mindset and Skillset Instructor evaluation of student (piloting 2020)
- Built with OST in mind for all entrepreneurial programs
VentureLab Entrepreneurial Mindsets & Skills

- Curiosity
- Growth Mindset
- Courage
- Persistence and Grit
- Opportunity-seeking
- Creative Problem Solving
- Failure Resilience
- Optimism
- Resourcefulness
- Adaptability
- Empathy

- Creativity
- Teamwork
- Idea Generation
- Opportunity Analysis
- Market Research
- Design Thinking
- Prototyping
- Business Model
- Pitching
- Public Speaking