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VentureLab Entrepreneurship Curriculum

Research Foundation & Logic Model

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September 12, 2024

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DEMONSTRATES A RATIONALE

LXD Research Recognition for VentureLab

venturelab
Entrepreneurial Learning

This product has been rigorously evaluated and is hereby acknowledged for meeting the educational impact criteria of the Every Student Succeeds Act (ESSA), warranting a Level IV designation for "Demonstrates a Rationale." This recognition is based on its research-based design and theory of change to enhance learning outcomes.

REVIEWED BY THE LXD RESEARCH EXPERT REVIEW PANEL

August, 2024

Rachel Schechter, Ph.D.
Founder of LXD Research

DATE

Understanding ESSA Evidence

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Educators search for high-quality research and evidence-based interventions to strengthen grant applications, to support comprehensive and targeted schools, or to implement new programming in their schools. Evidence requirements under the Every Student Succeeds Act (ESSA) are designed to ensure that states, districts, and schools can identify programs, practices, products, and policies that work across various populations.

Educational programs document their evidence of design, effectiveness, and impact in order to be eligible for federal funding. While there is no singular authority that determine's a program's tier, the Department of Education's Office of Educational Technology provides standards to assess the varying levels of strength of research for education products.

The categories for ESSA Evidence are: strong (Tier 1) , moderate (Tier 2), and promising (Tier 3) evidence of effectiveness, or demonstrates a rationale to be effective (Tier 4).

This product meets the requirements for Tiers 4 and 3:

- ✓ Includes a logic model based on research
- ✓ Research documentation connects academic research studies to features in the program that support learning.
- ✓ Correlational studies have been completed on the program's effectiveness with youth and educators who have participated.
- ★ A third-party research organization has reviewed the documentation for ESSA validation

When product designers leverage learning sciences to design their programs, educators can better target instruction, and students' skills soar. Through interviews with the product designers, an evaluation of their research-informed activities, and an investigation of student and educator survey responses, this product meets the criteria for LXD Research's ESSA Tier 3 Evidence.

– Rachel Schechter, Ph.D., Founder of LXD Research

What is the VentureLab Entrepreneurship Curriculum?

Entrepreneurship isn't just about starting a business; it's a way of thinking and doing that brings learning to life for all students. Being an entrepreneur allows youth to have the courage to take risks and try new things, adapt to change, creatively use resources to respond to challenges, persist through failure to learn, and be confident in themselves and their abilities. In a constantly changing future, an entrepreneurial mindset and skills will allow youth to discover their potential, grow into passionate innovators, and become courageous change-makers in their communities. That's why VentureLab created an innovative and fun entrepreneurship curriculum, training, and programs to help students, and especially girls, develop a mindset and 'heartset' that they can use for a lifetime, no matter what they choose to become.

What is in this document?

- Descriptions of the key components of the VentureLab entrepreneurship curriculum
- The research that informs the design of the curriculum
- The VentureLab logic model for the entrepreneurship curriculum
- Summaries of the research conducted with instructors who have used the curriculum
- Summaries of the research conducted with students who have been part of programs that used VentureLab curriculum

An Introduction to Entrepreneurship

VentureLab helps educators take the first step in introducing youth entrepreneurship to students.

- **ESTEAM Methodology:** ESTEAM combines science, technology, engineering, arts, and mathematics (STEAM) under the lens of entrepreneurship and gives students the knowledge to take their learning beyond the classroom.
- **21st Century Skills**: The curriculum emphasizes durable skills such as critical thinking, creativity, problem-solving, communication, and collaboration. These integral skills are are explicitly taught and reinforced through guided reflections after each activity.
- **Educator Created, Student Focused:** The curriculum is accessible and easy-to-use. Designed by educators for anyone to use, it includes real-world connections and practical problem-solving activities, ensuring that all students, regardless of background, engage and succeed.

VentureLab Entrepreneurship Pathway to Implementation

Program Milestones

VentureLab provides programs with comprehensive entrepreneurship curriculum as well as proffesional development (training and on-going support), program activation kit, custom schedule, and data reports from survey results.

Prior to implementation, educators are trained to effectively implement the curriculum. They are also coached by VentureLab staff throughout their use of the curriculum to model and grow their own mindsets by adapting and iterating throughout the implementation process.

Stepping Stones for Learning

VentureLab curriculum is flexible so educators are provided a custom schedule that matches the frequency and duration of their available teaching time. VentureLab assists educators in planning a culminating event held at the end of each implementation cycle where students can deliver informative pitches, hear guest speakers, and practice networking.

A Program Celebration is held at the of each implimentation cycle for educators to analayze student survey data, reflect on moments of growth, and make a plan for future implimentations.

VentureLab Engages Students through Active Learning

87%+
of students said they enjoyed the activities in their programs.

Students will:

- Leverage design thinking protocol to empathize and define challenges/opportunities.
  - Leverage design thinking to apply brainstorming/ideation techniques to generate solutions.
  - Leverage design thinking protocol to prototype, test, and apply feedback to iterate on solutions.
- Engage in creative thinking strategies and experience failures
- Conduct self-reflection activities, including surveys, before, throughout, and after the program.
- Conduct primary research to practice empathy.
- Conduct secondary market research to exercise critical thinking.
- Create a business model considering revenue & expenses.
- Plan, write, and perform persuasive writing and presentations through an informative pitch.

VentureLab Guides Educators to Lead and Learn

Teachers will:

- Model and celebrate entrepreneurship mindsets.
- Receive ongoing support through coaching and mentoring for effective curriculum implementation.
- Adapt the curriculum to align with local needs and strengths to enable place-based learning.
- Iterate on the provided custom implementation schedule and communication tools to align with their needs.
- Organize entrepreneurship culminating events (i.e., pitch presentations and/or business fairs) with guest speakers and networking opportunities.
- Gather feedback from surveys and focus groups to enhance program effectiveness.

93%+
of instructors would recommend the program to others.

Entrepreneurship Curriculum Logic Model

PROBLEM STATEMENT

The World Economic Forum reports that 65% of students today will be employed in jobs that don't yet exist. The current education system fails to equip students with the adaptable skills and entrepreneurial mindset required for success. Traditional models often overlook the importance of fostering creative thinking, empathy, and problem-solving. STEM education culture dissuades girls and students from under-represented populations pursuing STEM fields. There is an urgent need for inclusive, forward-thinking educational programs that prepare all learners to thrive across disciplines and lead with confidence.

RESOURCES

What resources are or could be available?

- VentureLab Program Activation Kit
- Program Milestones & Stepping Stones
- Entrepreneurship Survey
- Professional Development
- Potential scholarships
- Free activities & resources for educators & caregivers
- VentureGirls book

STRATEGIES AND ACTIVITIES

What will the activities, events, and such be?

- Design Thinking
- Creative Thinking
- Self-Reflection
- Conducting Research
- Business Models
- Persuasive Writing
- Presentations
- Entrepreneurship Mindsets
- Ongoing Mentoring & Coaching

OUTPUTS

What are the initial products of these activities?

- Students actively engage in entrepreneurial activities and with hands-on ESTEAM® resources
- Teachers actively engage to deliver relevant, place-based lessons and events.
- Virtual or in-person pitch events have high student and community participation
- Educators are trained on entrepreneurial learning activities and apply lessons in personal and professional settings
- Teachers review Entrepreneurship Impact Survey results that are compiled and shared
- Program participants, educational stakeholders, and community members report satisfaction with the implementation of the program

SHORT-TERM AND INTERMEDIATE OUTCOMES

- Students and teachers expand their knowledge of and interest in entrepreneurship, business ownership, STEAM fields, and new careers.
- Students and teachers co-develop creativity, innovation, and comfort with ambiguity and failure.
- Students build critical thinking, problem-solving, design thinking, self-awareness, and self-management skills.
- Students develop confidence, social awareness, and relationship skills to effectively connect with the community.
- Students improve their entrepreneurial mindsets, and self-esteem, attitudes towards group work, increased empathy, and a growth mindset.
- Teachers apply entrepreneurial skills in personal and professional endeavors.
- Teachers develop social awareness and relationship and problem-solving skills to effectively handle student setbacks.
- Teachers exhibit greater empathy, identifying student opportunities and learning needs.
- Teachers show a positive shift towards entrepreneurial education mindsets, increasing their competence, confidence, and innovation in curriculum delivery.

LONG-TERM OUTCOMES AND IMPACTS

- The program will increase attendance, academic achievement, and high school graduation rates.
- Students will graduate equipped with stronger entrepreneurial mindsets and employability skills.
- Students will drive significant contributions to local economies through entrepreneurial ventures.
- Under-represented populations have a greater proportion of entrepreneurs and STEAM leaders.
- The educational system will integrate entrepreneurial skills widely, fostering innovation and adaptability in the workforce.
- The program will strengthen community partnerships and increase stakeholder investment (e.g., time, in-kind materials, and financial).
- Administrators will observe the broader adoption and application of entrepreneurial mindsets by students and staff both in and outside the learning environment.

ASSUMPTIONS

- Teachers are provided time and support to leverage all the components of the curriculum and engage with the community to meet all the program goals.

INSTRUCTOR SURVEY RESULTS 2024

STUDY CONTEXT

VentureLab partnered with Expanding Pathways in Computing (EPIC) STEM Evaluation Services at The University of Texas at Austin (UT) Texas Advanced Computing Center (TACC). VentureLab developed a survey to assess instructors' satisfaction with and implementation of the VentureLab entrepreneurship curriculum. The program was funded by the Charles Stewart Mott Foundation.

STUDY DETAILS

Sample Size

128 Instructors

Time Frame

June 2020-June 2024

Methodology

The survey measured the change in instructors' entrepreneurial skills and mindsets, as well as perceived change in their elementary and secondary students' entrepreneurial skills, mindsets, interests, and confidence.

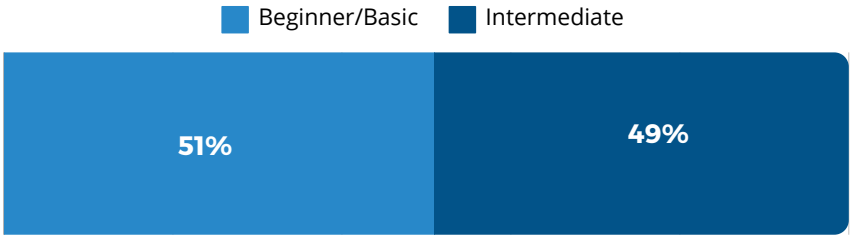
KEY FINDINGS

Instructors continue to report high satisfaction with the program and its outcomes.

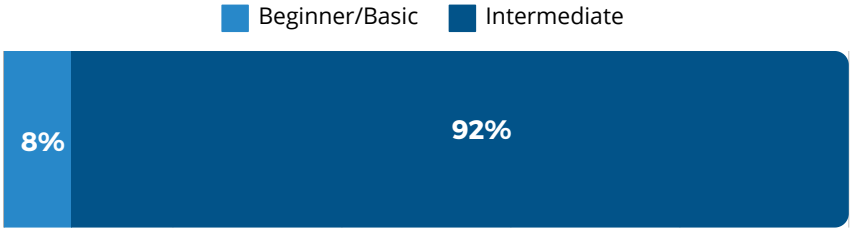
- **93(+)%** of instructor respondents were satisfied with their overall experience.
- **80(+)%** said their students gained new skills such as creativity, idea generation, design thinking, and pitching.
- **94(+)%** of instructors would recommend the entrepreneurship program to others.
- **92(+)%** of instructors reported intermediate/advanced skills after their program, compared to 49% before the program.

Instructor ratings of their entrepreneurship teaching skill level substantially improves after implementing VentureLab.

My skill teaching entrepreneurship BEFORE this program:



My skill teaching entrepreneurship AFTER this program:



STUDENT SURVEY RESULTS 2024

STUDY CONTEXT

VentureLab partnered with Expanding Pathways in Computing (EPIC) STEM Evaluation Services at the University of Texas at Austin (UT) Texas Advanced Computing Center (TACC). VentureLab developed a survey to assess student engagement levels and changes in students' skillsets and mindsets as a result of their entrepreneurship curriculum. The Charles Stewart Mott Foundation funded the program.

STUDY DETAILS

Sample Description

- Total = 1114 Students
- Grades 1-2 = 220 Students
- Grades 3-5 = 310 Students
- Grades 6-12 = 584 Students

Time Frame

June 2020-June 2024

Methodology

The survey measured the change in students' entrepreneurial skills, mindsets, interests, and confidence.

KEY FINDINGS

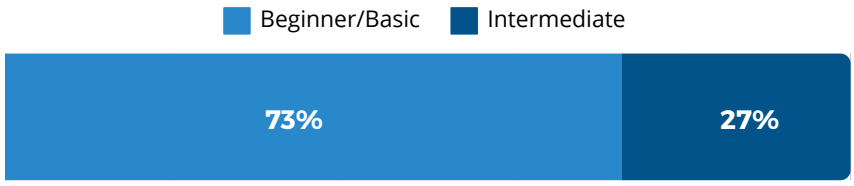
Students reported significant improvements in their mindsets and confidence as well as interest in entrepreneurship.

- **81(+)%** of elementary students learned at least some about being an entrepreneur.
- **84%** of Grades 6-12 students developed at least intermediate entrepreneurship skills.
- Approximately three-quarters of students indicated they improved in their entrepreneurial mindsets (75-82%), self-confidence (74-87%), and confidence in their abilities (73-90%) because of their entrepreneurship program.

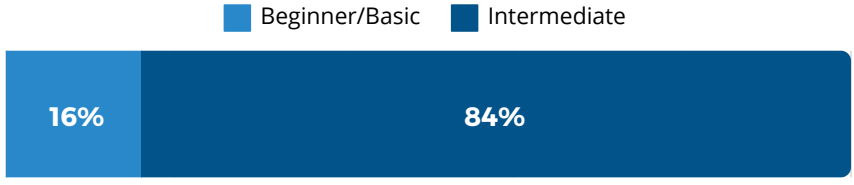
Percent of Students Who Improved in Entrepreneurial Skills

Skillset	Average (Grades 1-12)
Creativity	83%
Idea Generation	81%
Design Thinking	79%

My level of entrepreneurship skill BEFORE this program:



My level of entrepreneurship skill AFTER this program:



INSTRUCTOR SURVEY RESULTS
2021-2023

STUDY CONTEXT

VentureLab partnered with Expanding Pathways in Computing (EPIC) STEM Evaluation Services at The University of Texas at Austin (UT) Texas Advanced Computing Center (TACC). VentureLab developed a survey to assess instructors' satisfaction with and implementation of the VentureLab entrepreneurship curriculum. The program was funded by the Charles Stewart Mott Foundation.

STUDY DETAILS

Sample Size
88 Instructors

Time Frame
June 2020-December 2023

Methodology
The survey measured the change in instructors' entrepreneurial skills and mindsets, as well as perceived change in their elementary and secondary students' entrepreneurial skills, mindsets, interests, and confidence.

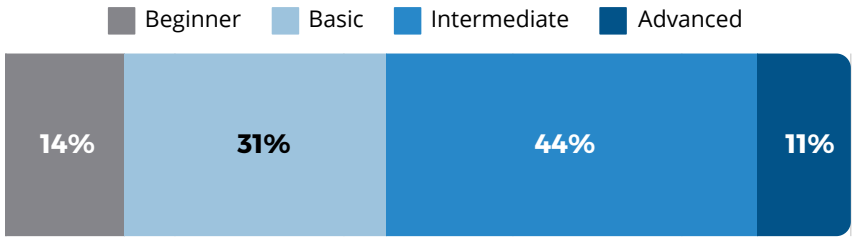
KEY FINDINGS

Instructors overwhelmingly reported high satisfaction with the program, materials, and support.

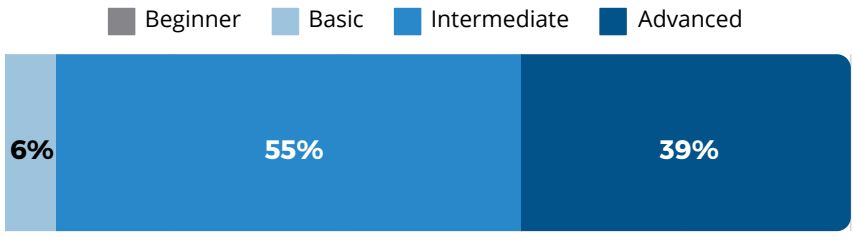
- **94(+)%** of instructor respondents were satisfied with their overall experience and enjoyed teaching the entrepreneurship activities.
- **93(+)%** reported that their students' mindsets improved.
- **78(+)%** said their students gained new skills such as creativity, idea generation, design thinking, and pitching.
- **58(+)%** of instructor respondents said their own mindsets improved as a result of using the program.

Instructor ratings of their entrepreneurship teaching skill level substantially improves after implementing VentureLab.

My skill teaching entrepreneurship BEFORE this program:



My skill teaching entrepreneurship AFTER this program:



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STUDENT SURVEY RESULTS
2021-2023

STUDY CONTEXT

VentureLab partnered with Expanding Pathways in Computing (EPIC) STEM Evaluation Services at The University of Texas at Austin (UT) Texas Advanced Computing Center (TACC). VentureLab developed a survey to assess student engagement levels as well as changes in students' skillsets and mindsets as a result of the VentureLab entrepreneurship curriculum. The program was funded by the Charles Stewart Mott Foundation.

STUDY DETAILS

Sample Description

- Total = 694 Students
- Grades 1-2 = 43 Students
- Grades 3-5 = 224 Students
- Grades 6-12 = 427 Students

Time Frame

June 2020-September 2023

Methodology

The survey measured the change in students' entrepreneurial skills, mindsets, interests, and confidence.

KEY FINDINGS

Students reported significant improvements in their mindsets and confidence, increased interest in entrepreneurship, and substantial skill development.

- **70(+)%** of students had enhanced mindsets & confidence after their programs.
- **71(+)%** of students had increased interest in owning or starting a business.
- **77%** of Grades 6-12 entrepreneurship students started with beginner or basic skills.
- **82%** of Grades 6-12 entrepreneurship students ended with intermediate or advanced skills.

Percent of Entrepreneurship Students Who Said They Improved in Skillsets

Skillset	Average (Grades 1-12)
Idea Generation	85%
Creativity	85%
Teamwork	79%
Design Thinking	78%
Pitching	77%

Public Thinking = 74%; Opportunity Analysis = 74%; Business Model = 71%; Prototyping = 71%; Market Research = 70%

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LXD Research is an independent research firm that evaluates educational programs with ESSA-aligned methods.

Learn more at www.lxdresearch.com

For additional information about **VentureLab** visit:

www.venturelab.org