





100
ROADS



Deloitte.



What is the Early IT Microschool?

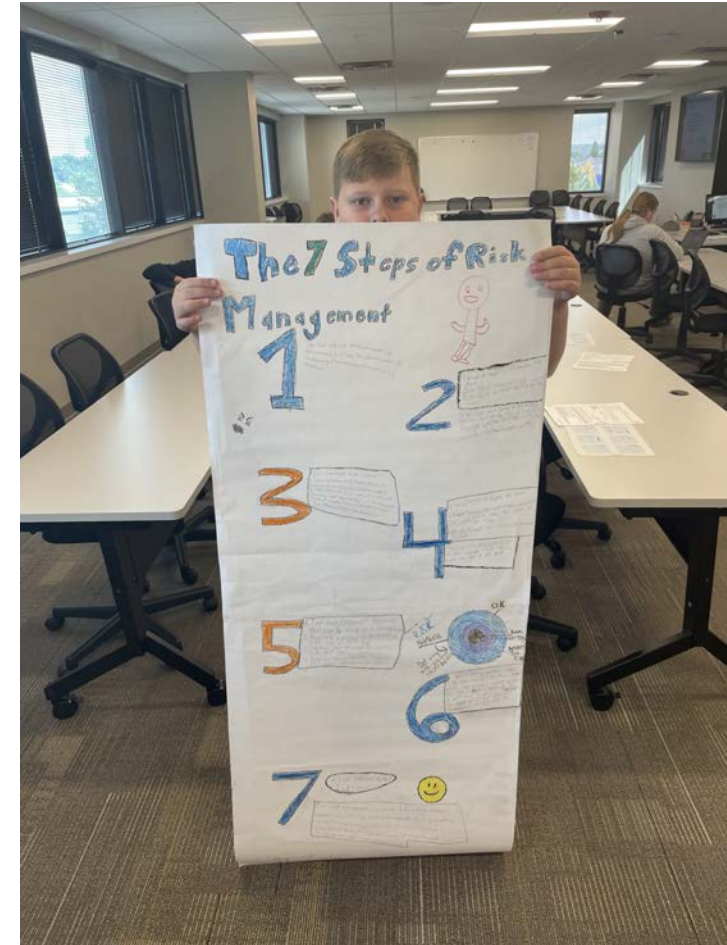
The Early IT Program Powered by PAST in collaboration with the University of Cincinnati, aims to establish a seamless educational pathway for 15-to-20-year-olds, offering a direct route from education to the workforce in information technologies.

The program, developed in collaboration with various partners including the Ohio Cyber Range Institute, the School of Information Technologies at the University of Cincinnati, partner school districts, and the PAST Foundation, is designed to eliminate barriers and provide work-based learning experiences leading to postsecondary credentials and career opportunities.

Early IT - Initiative #1 Cybersecurity Bootcamp

Summer Cybersecurity Camps
[r-2024-r1ie79sprz4g4btx](#)

- Middle schools in central Ohio
 - Muskingum Valley - [MVEESC](#)



Early IT - Initiative #1 Cybersecurity Bootcamp

Summer Cybersecurity Camps

- Middle schools in central Ohio
 - Groveport Madison - [Groveport](#)



Early IT - Initiative #1 Cybersecurity Bootcamp

Summer Cybersecurity Camps -

<https://padlet.com/PASTFoundation/it-boot-camp-summer-2024-qywem0sqpls1v68>

- PAST - Targeted towards students interested in the Early IT microschool
 - Two week intensive
 - Cybersecurity lessons
 - Leadership Credentials
 - PortfoliOH

Early IT - Initiative #1 Cybersecurity Bootcamp

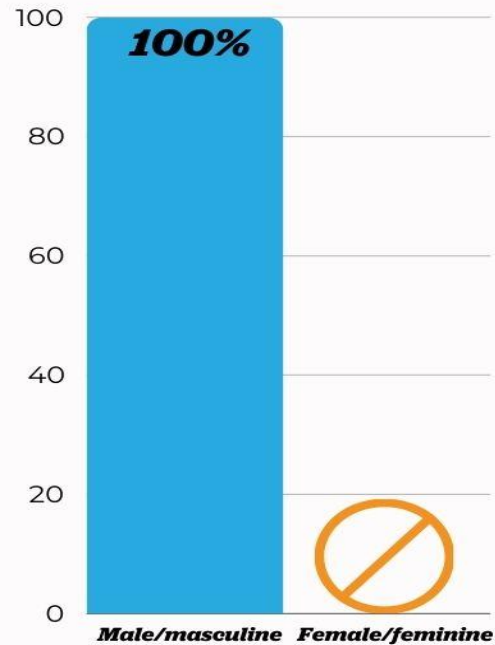
- Professional Development and coaching for all of the teachers.
 - now have the tools to run afterschool programs with this same curriculum
- Developed six weeks of lessons appropriate for middle school learners and uploaded it to the CyberRange
- Student Tech interns either employed by PAST or through the home school



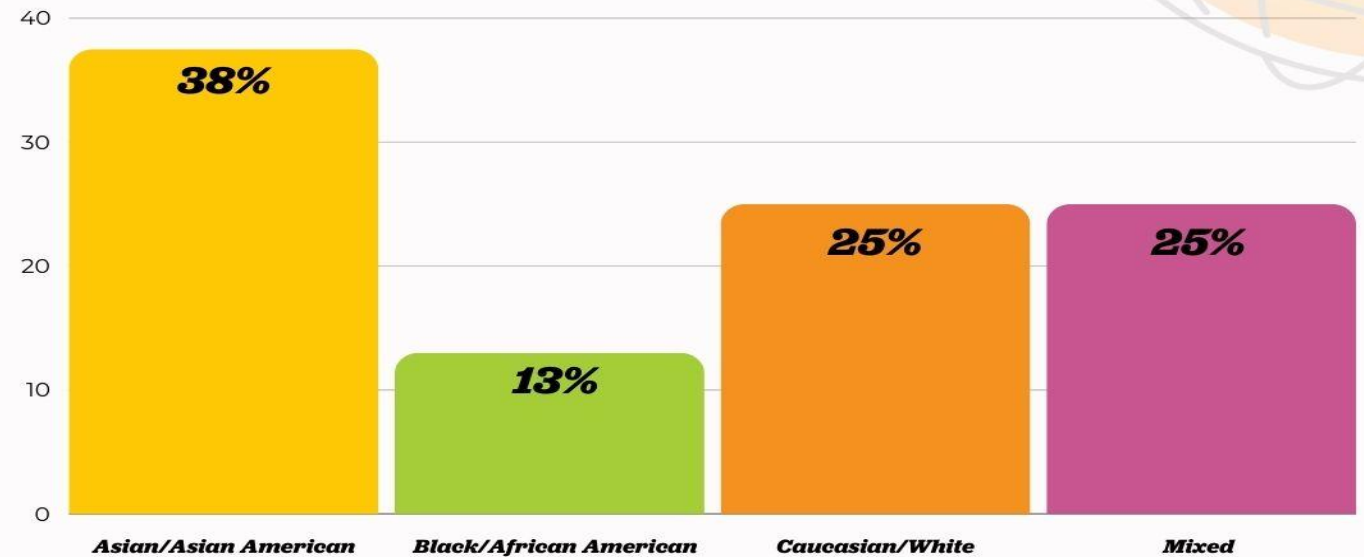
Participant Demographics

Post-test Data

Gender



Race/ethnicity



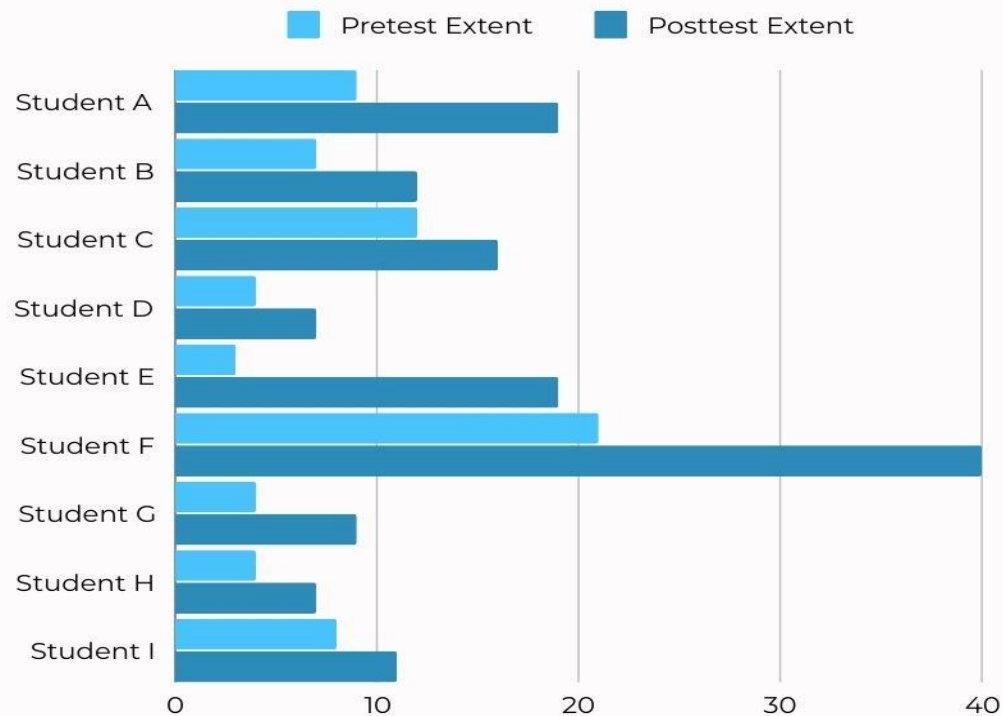
There were a total of 8 participants who took both a pre- and post-survey included in the comparative analysis.



Personal Meaning Mapping

Knowledge Acquisition

Figure 1: PMM “Extent” Results



Results

- The subject of this programming was “Cybersecurity”. Student responses were measured for “extent” – the quantity of terms and concepts in their PMM; “breadth” – the quantity of categories the participant indicated; “mastery” – the quality and depth of their responses
- Every student showed an increase in the “extent” category [see Figure 1]. This result suggests that students had quantifiable knowledge gains from this program (effect size $[d_z] = 1.24$, $\alpha = 0.046$, power = 0.94).
- All but one student (89%) also achieved an increase in the “breadth” category by enrolling in the program (effect size $[d_z] = 1.85$, $\alpha = 0.01$, power = 0.98)
- 22% students also demonstrated growth in mastery: they went from using basic definitions of cybersecurity to incorporating examples and applications of cybersecurity in their posttest (effect size $[d_z] = 0.48$, $\alpha = 0.35$, power = 0.85).



Fall - 2024 - Launch

#ThisIsPAST



- Three school districts
- 15 students
- Daily Advisory Component
- IRC
- One teacher and one Paraprofessional focused on Advisory and WBL supports
- Leveraging the 100 Roads space to connect with partners

UC Course

Credit Types Accepted



IT1050
FUNDAMENTALS
OF INFORMATION
TECHNOLOGY

- UC Articulated Credit
- Dual Enrollment
- AP Computer Science Principles



IT1080C
COMPUTER
NETWORKING

- UC Articulated Credit
- Dual Enrollment
- Ohio CTE Articulated Credit (CTAG)



IT1081C
SYSTEM
ADMINISTRATION

- UC Articulated Credit
- Dual Enrollment
- Ohio CTE Articulated Credit (CTAG)

UC Course

Credit Types Accepted



IT1090C
COMPUTER
PROGRAMMING I

- AP Computer Science A
- UC Articulated Credit
- Dual Enrollment
- Ohio CTE Articulated Credit (CTAG)



IT2040C
FUNDAMENTALS OF
WEB DEVELOPMENT

- UC Articulated Credit
- Dual Enrollment
- Ohio CTE Articulated Credit (CTAG)



IT2060C
DATABASE
MANAGEMENT I

- UC Articulated Credit
- Dual Enrollment

Credit Types Accepted



ENGL1001
ENGLISH
COMPOSITION

- AP English Literature & Composition
- AP English Language & Composition
- CCP Approved Ohio Transfer Module Course Equivalent



MATH1021
COLLEGE ALGEBRA
OR
MATH1026
PRECALCULUS

- AP Calculus
- AP Statistics
- CCP Approved Ohio Transfer Module Course Equivalent



HISTORY/
SOCIAL SCIENCES/
FINE ART OR
COMM1076
INTRO TO
INTERPERSONAL
COMMUNICATION

Credit Types Accepted

- AP History
- AP Government
- AP Psychology
- AP Foreign Language
- CCP Approved Ohio Transfer Module Course Equivalent

Key Components

#ThisIsPAST

- **Integrated Curriculum:** A curriculum integrating high school and college-level coursework, enabling students to earn an associate's degree in IT with COTC and direct admission to UC's Baccalaureate Degree Program.
- **Work-Based Learning:** Partnerships with local IT professionals and companies, including Deloitte to offer hands-on work experiences aligned with academic content throughout grades 10 to 14. This includes mentorships, internships, apprenticeships, and co-op opportunities.
- **Credentialing:** Establish a tiered credentialing system recognizing students' progress and achievements, acknowledged by local industries as valuable qualifications.
- **Governance and Compliance:** Develop a governance structure involving representatives from key institutions to ensure effective decision-making. Seek designation as an Ohio Department of Higher Education Early College Program.
- **College and Career Advising:** Utilize Big Picture Learning's advisory process to enhance PAST Foundation's implementation of their work-based learning framework, human library, and virtual Innovation Labs for the Learning Landscapes Challenge. The collaboration seeks to create innovative, student-centered learning experiences that connect students with real-world applications and community resources.

Next Steps

- **Expansion Program for 2025:** 5 total microschools in IT
- **Stakeholder Engagement:** Engage students, parents, educators, industry leaders, and policymakers to garner support.
- **Scaling Up:** Gradually expand the program to include more schools and communities, focusing on regions associated with information technologies and chemical operations industries.
- **Advocacy:** Collaborate with education advocacy groups and policymakers to advocate for the benefits of the 10-14 system and secure legislative support and funding.
- **Continuous Improvement:** Continuously assess and refine the model based on student outcomes, industry needs, and stakeholder feedback.



THE PAST FOUNDATION

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