


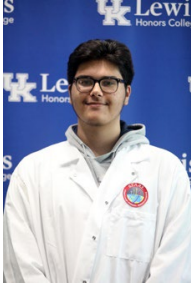


<b>Project Name: University of Kentucky's STEM Through Authentic Research &amp; Training (START) Program</b>	
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<b>Website:</b> https://start.uky.edu	<b>If SEPA project, URL for project on https://nihsepa.org/</b> <a href="https://nihsepa.org/project/stem-through-authentic-research-training-start-program-for-underrepresented-communities">https://nihsepa.org/project/stem-through-authentic-research-training-start-program-for-underrepresented-communities</a>

<b>Brief Program Description</b>		
STEM occupational demand continues to increase, but many students lack key experiences and road maps to STEM careers. First generation, female, disabled, and students of color remain underrepresented. The START Program aims to diversify the STEM community and enrich future STEM higher education, research, and innovation. START sponsors teacher professional development and provides mentorship and authentic STEM experiences to students.		
<b>Program and Participant Characteristics</b>		<b>Program Activities</b>
<b>Program type</b> (Please check all that apply): <input type="checkbox"/> Curriculum. <input checked="" type="checkbox"/> Out-of-school program <input type="checkbox"/> Exhibit <input type="checkbox"/> Interactive multimedia <input checked="" type="checkbox"/> Teacher PD <input checked="" type="checkbox"/> Research experiences for students or teachers <input type="checkbox"/> Other (describe):	 	<ul style="list-style-type: none"> <li>• Students are paired with laboratories at the University of Kentucky to participate in STEM research with faculty and mentors.</li> <li>• Summer participants also receive professional development seminars on tools for college student success.</li> <li>• The summer session includes a week of service at the See Blue See STEM camp.</li> <li>• Undergraduate and graduate mentors in the laboratories as well as summer apprentices prior to the week of service complete a coaching-based peer mentor training.</li> <li>• The summer session concluded with a “Go for Launch” event (higherorbits.org) for START apprentices.</li> <li>• START students celebrate a White Coat ceremony.</li> <li>• Teachers can participate in professional development opportunities through the University of Kentucky.</li> </ul>
<b>Setting(s):</b> <input checked="" type="checkbox"/> Formal <input type="checkbox"/> Informal	 	
<b>Types of participants</b> <input checked="" type="checkbox"/> Students <input type="checkbox"/> Teachers <input type="checkbox"/> Scientists <input type="checkbox"/> Families <input type="checkbox"/> Public <input type="checkbox"/> Other (describe):		
<b>Grade level(s) of participants</b> <input type="checkbox"/> PreK <input type="checkbox"/> Elementary (K-5) <input type="checkbox"/> Middle (6-8) <input checked="" type="checkbox"/> High (9-12) <input type="checkbox"/> Adult		
<b>Characteristics of the populations you serve relative to DEIA:</b> traditionally underrepresented populations		

Evaluation	Key Accomplishments and/or Findings
<p><b>Constructs measured</b></p> <p><input type="checkbox"/> Content knowledge      <input type="checkbox"/> Skills</p> <p><input type="checkbox"/> Nature of science      <input checked="" type="checkbox"/> Career awareness</p> <p><input checked="" type="checkbox"/> Attitudes (e.g., interest, identity, belonging)</p> <p><input type="checkbox"/> Quality or fidelity of implementation</p> <p><input type="checkbox"/> Other (describe):</p>	<ul style="list-style-type: none"> <li>• Approximately 24 student apprentices participated in the 2023 summer session and more than 50 laboratory placements occurred during the 2023-24 academic year.</li> <li>• Nearly a dozen previous students from the summer session and 2022-23 academic year continued with the START program for 2023-24.</li> <li>• Over 20 undergraduate and graduate students participated in the START peer-mentor training during the 2023-24 academic year.</li> <li>• As discussed in a forthcoming article publication, the START research team found several beneficial themes related to students' experiences with the coaching-based peer mentor training.</li> <li>• As part of another research project, using students' interviews at the conclusion of the summer session, researchers found that networking opportunities with faculty, mentors, and other START apprentices were as impactful as laboratory research access and STEM opportunities.</li> <li>• Comparisons in pre- and post- test responses demonstrated that students who started with STEM career interests maintained these interests throughout the course of the program, with many of the summer apprentices continuing participation through the school year.</li> </ul>
<p><b>Methods</b></p> <p><input checked="" type="checkbox"/> Tests/surveys      <input checked="" type="checkbox"/> Interviews/focus groups</p> <p><input type="checkbox"/> Observations      <input type="checkbox"/> Artifacts (e.g., student work)</p> <p><input type="checkbox"/> Other (describe):</p>	
<p><b>Design characteristics</b></p> <p><input type="checkbox"/> Comparison or control group</p> <p><input checked="" type="checkbox"/> Pre/post surveys or assessments</p> <p><input type="checkbox"/> Longitudinal tracking of participants</p> <p><input type="checkbox"/> Other (describe):</p>	
<p style="text-align: center;"><b>Project Lessons Learned</b></p> <ul style="list-style-type: none"> <li>• Based on high school partners' feedback, the academic year session is easier to place students in laboratories than the summer session.</li> <li>• Post-programming surveys and interviews were easier to collect from the summer session cohort, given the frequent interactions between apprentices and START personnel.</li> </ul>	
<b>Questions, Advice Wanted, or Topics of Discussion for the SciEd Community (optional)</b>	