**Vision**
Iridescent’s 15 year strategic plan is to work with 15,000 engineers & scientists, 520,000 parents and 21,000 educators, to collectively inspire and support 1.2 million children to develop life traits of Curiosity, Creativity & Persistence.

**Challenge**
Year-to-year retention. ~30% of families come for 2 consecutive years, 8% for 3 years and 4% for 4 consecutive years in a row. (n = 769)

**Strategy**
Training parents in pedagogy and leadership to increase co-investment in the program. Training includes:
- Introduction to: Fixed vs Growth Mindset & Bloom’s taxonomy
- Tips on doing science at home
- Accessing additional curriculum and mentors via Curiosity Machine online platform
- Organizing Family Science Courses

**Engineers Develop**
and teach hands-on design challenges to local underserved families

**Families Mentored**
online by engineers & scientists

**By leveraging Engineers, Parents & Technology, we can provide high-quality STEM education to thousands of children, for many years**

**LEARNING GAINS: ENGINEERS**
- Developed science communication, public speaking, collaboration and leadership skills
- Developed critical thinking skills and creativity
- Sharpened own understanding of engineering concepts
- Deeper understanding that there are multiple solutions to a problem
- Rediscovered own passion by inspiring others

**LEARNING GAINS: PARENTS**
- ~50% of returning parents reported talking about science either daily or once a week compared to ~30% of first-time parent participants.
- Deeper understanding of STEM; enabling them to explain concepts to children better.
- Learned to build science experiments in fun and engaging ways: led to more science at home.
- Developed a greater confidence as children see them as problem-solvers and sources of knowledge.
- Positive perception of STEM and STEM jobs.

**Learning Gains for Children**

<table>
<thead>
<tr>
<th>Year</th>
<th>Understand STEM better</th>
<th>More interested in science at school</th>
<th>Less averse to challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 2</td>
<td>68%</td>
<td>76%</td>
<td>92%</td>
</tr>
<tr>
<td>Year 3</td>
<td>66%</td>
<td>79%</td>
<td>84%</td>
</tr>
<tr>
<td>Year 4</td>
<td>68%</td>
<td>84%</td>
<td>92%</td>
</tr>
</tbody>
</table>

**BE A SCIENTIST!** is a broad implementation project in which undergraduate engineering students teach science to underserved families with children grades 1-5 in South Central LA and NYC.

**Train Parents & Educators**
to use this curriculum and reach more families

**Produce Videos**
for best design challenges and publish online

References:

http://iridescentlearning.org