Think Together Expanded Learning Programs Connect K-12 Youth to the STEM Workforce through Private & Public Partnership

About Think Together Program & Partnerships

Think Together is 501c3 educational services nonprofit which partners with schools to provide expanded learning programs across six California counties. We reach:

- 400+ largely Title I schools at 50 districts and 23 charter management organizations
- 85,000+ K-12 students (82% FRPM and 92% students of color) served by 6,000 staff and volunteers hired/recruited from the communities we serve.

Expanded learning includes 700+ hours before and after school during the school year, 100-200 hours in the summer, and 40-100 hours during winter and spring breaks.

School principals help hire Think Together site staff and meet regularly to ensure strong alignment with school day curriculum, academic resources and partnership.

Private and public partnerships have been integral in providing access to comprehensive STEM curriculum.

- Partnerships include school districts and corporate and foundation partners.
- STEM offerings are designed to foster students' development of 21st Century workplace skills and knowledge of STEM concepts, preparing them for future STEM careers.

STEM Curriculum & Implementation

STEM Implementation Reach:

Think Together implemented STEM Programs at 102 public schools in Los Angeles County (Bassett, Bellflower, Carson, Compton, El Monte, La Puente, Lynwood, Paramount, Pico Rivera, South Los Angeles, and Sylmar), Riverside County (Moreno Valley, Palm Springs, and Perris), Orange County (Costa Mesa and Santa Ana) and San Bernardino County (Rialto).

- 5,000+ students participated in at least 60 hours of STEM programs that help them develop 21st Century workplace skills such as collaboration, critical thinking and problem solving.
- 5,000+ students participated in at least 20 hours of STEM Pioneers program that teach them about STEM-based career pathways.
- 5,000+ students participated in Forces of Flight, Coding and Robotics programs that help them learn engineering design skills.

Staff Preparation:

More than 250 staff participated in at least 12 hours of professional development in Computer Science, Applied Technology, Socio-Emotional Learning, and fundamental academic skills.

Evaluation of STEM Program:

Survey assessments were conducted with students and staff on the following:

- Staff will express confidence in teaching academic, socio-emotional and technical skills and knowledge through coding and robotics.
- Students will demonstrate understanding of collaboration, critical thinking and problem-solving skills.
- Students will demonstrate understanding of engineering design skills as defined by Next Generation Science Standards (explaining problems and developing solutions, persistence in solving a problem, and gathering feedback to improve their solution).
- Students will demonstrate understanding of STEM-based career pathways.

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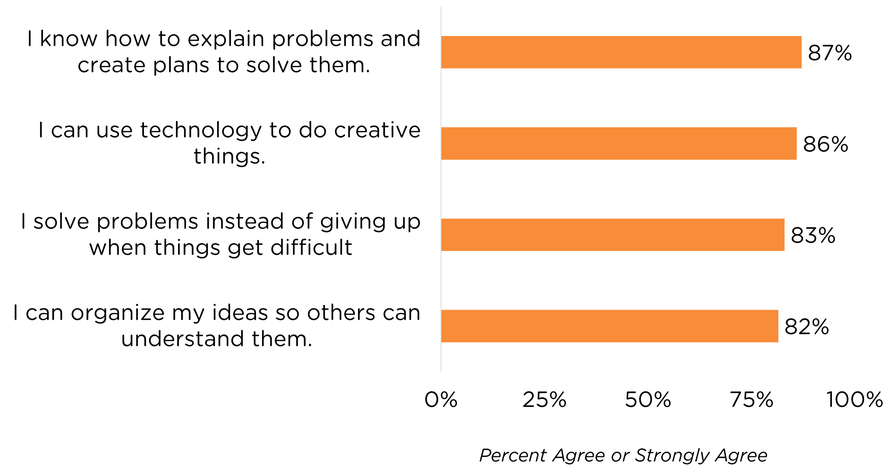
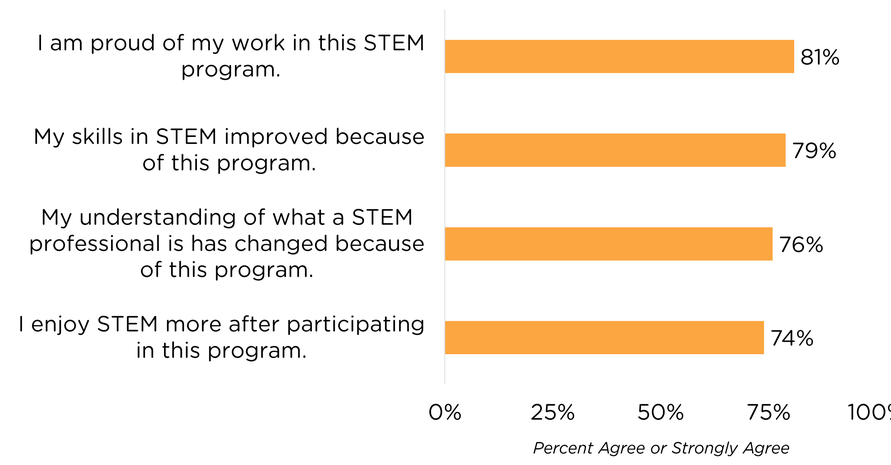
Lessons Learned from Evaluation

In April of 2024, surveys were collected from 4,897 students across 102 school sites. Students self-reported that they possess several 21st Century skills connected to STEM curriculum. Students also reported how they felt their STEM program impacted them (e.g., improved skills, changed their understanding of STEM professionals).

Student Reported to 21st Century Skills



Student Attributions to STEM Program



Conclusion & Future Opportunities

The implementation of STEM programming in the expanded leaning setting at Think Together has demonstrated promising benefits to students; however, we identified several opportunities to build upon this work to elevate the impact.

Benefits

- Partnerships increased the access that students have to robust hands-on STEM opportunities.
- Students broadened their horizons on STEM careers through intentional exploration of STEM careers.
- STEM programming reinforced the development of 21st Century Skills (e.g., critical thinking, problem solving) and skills associated with Social-Emotional learning.

Future Opportunities for Growth

- **Staff Development:** Think Together staff are usually college students or recent graduates working their first job. Continued development and support is needed to achieve proficiency in championing STEM content.
- **Technology Access:** While technology infrastructure has improved, many students do not have 1:1 computer access during expanded learning time.
- **Further Deepen STEM Access:** The STEM field is diverse. There are opportunities to expose students to more.

Acknowledgements

Evaluation led by Haley Umans, Ph.D., Senior Director of Data and Evaluation at Think Together. STEM Programs made possible through district partnerships, primary corporate partners Boeing and Broadcom as well as Honda, Southern California Edison, Ross Stores, San Manuel Band of Mission Indians, Fluor and Edwards Lifesciences.

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