

CASE STUDY

CREATING FUTURES WITHOUT BOUNDARIES



N A P E

Increasing Enrollment in Middle School Advanced Mathematics at Stony Point Learning Community, Round Rock Independent School District, Texas

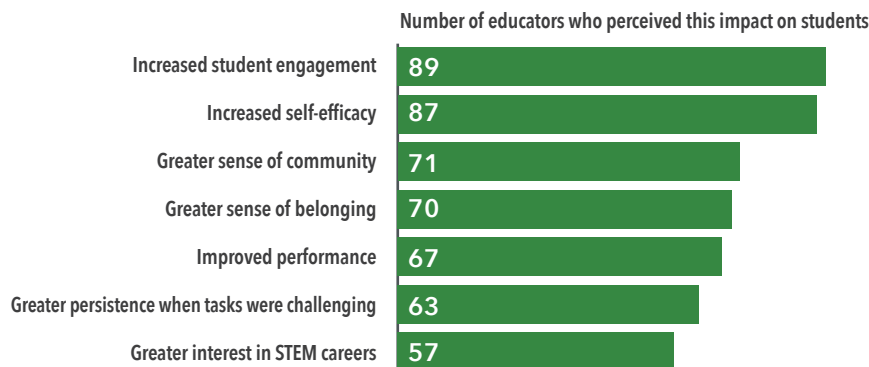
By Audrey Selden, JD, NAPE Lead for E3 Alliance



“NAPE programs took us from 33% of students in an advanced sixth grade math class to 75% with no extra allocation of funds or teachers. We’ve eliminated the gatekeepers to advanced classes – teacher recommendations, minimum STAAR/EOC scores, minimum class averages – and instead, replaced them with procedures that make this accessible to all.”

– Dr. Natalie Nichols, Area Superintendent, Stony Point Learning Community, Round Rock ISD, Texas, 2021

Systemic educational improvement is happening in Central Texas. In 2018, the E³ Alliance invited the National Alliance of Partnerships in Equity (NAPE) to be their equity partner in the **Pathways of Promise research-based initiative**, a collaboration with Central Texas School Districts funded by a grant from the Greater Texas Foundation. The E³ Alliance collaboration includes **seven school districts** over the course of two multi-year grant iterations. Educators reported that implementing NAPE strategies impacted students in multiple ways.



113 educators responded to the survey

SCHOOL DISTRICTS PARTICIPATING



ROUND ROCK
INDEPENDENT SCHOOL DISTRICT



SAN MARCOS
CONSOLIDATED INDEPENDENT SCHOOL DISTRICT

About the E³ Alliance

E³ Alliance is the Central Texas regional, data-driven backbone education organization based in Austin, Texas. It continues to build a strong educational P-16 pipeline to drive regional economic prosperity. Through the Central Texas STEM Equity Initiative, titled Pathways of Promise – Building Sustainable Acceleration and Instruction in Math Pathways, E³ Alliance engaged NAPE to provide equity-focused professional learning that explores micromessaging and implicit bias and how these mental models impact our educational practices. Our combined efforts seek to improve student outcomes across every demographic of our 600,000 children and students throughout the Central Texas region – from cradle to career. As the Pathways of Promise initiative evolved into its latest iteration, Building Sustainable Systems for Equitable Acceleration and Instruction in Math Pathways, E³ and NAPE are seeing as many shifts in mindsets as shifts in practices and policies.



ALONE,
WE DO GOOD.
TOGETHER,
WE DO GREATER
GOOD.



“Transforming education systems requires collaboration with partners who share the same passion for equitable practices and policies that open the doors for all students. It is an honor to partner with NAPE and have access to profound learning opportunities that are rooted in equity.”

– Thymai Dong, Ph.D., Director,
Community Solutions, E³ Alliance

NAPE's Equity Partner Involvement

NAPE provided research-based professional learning and resources to increase student enrollment and success in the math pipeline. **This case study addresses the student impact in Round Rock Independent School District (RRISD).** Since 2018, the RRISD Stony Point Learning Community (SPLC) has disrupted and transformed its math pipeline to increase student participation and success. SPLC focused on the transition from fifth to sixth grade. In three years, enrollment in sixth grade pre-AP math increased from 33% to 75%.

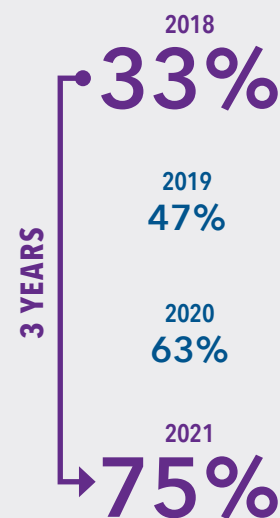
This SPLC story demonstrates that a diverse, resolute team of educators can implement significant changes to benefit hundreds of students and improve students' education experience and career options.



MATH MATTERS VIDEO (4:01)
youtube.com/watch?v=hMdO3wUckqU



PERCENTAGE OF 6TH GRADERS ENROLLED IN PRE-AP MATH



Challenge

Knowing the role that math skills play in preparing students for high-skill, high-wage, in-demand opportunities aligned with the nation's urgent and ever-growing need for talent. SPLC ventured to examine its policies and practice to create better futures for **EVERY** student. Going on four years, SPLC has participated with NAPE, and Central Texas school districts in E³ Alliance's Pathways of Promise Initiative to increase student participation and performance in math. Advanced mathematics supports the need to prepare students for the workforce by building problem-solving and critical thinking skills important for success in college and career. According to the University of Texas Austin Education Research Center, students who completed a college-level math class (Advanced Placement, dual credit, or International Baccalaureate) in high school have close to a 60% likelihood of earning a postsecondary credential. A deep data dive highlighted the disparity in students' enrollment in advanced math when transitioning from the fifth to sixth grade. This was especially true for high-performing Black and Hispanic students – although they demonstrated potential, they were not entering advanced math pathways.

Solution

Former Area Superintendent, Dr. Natalie Nichols, and then Area Director for Academics, Sunny Wren, formed a cross-functional team of SPLC educators with the goal of **Creating Futures without Boundaries**. SPLC educators actively engaged in NAPE's suite of Comprehensive Educational Equity Programs, including:

- Leading for Equity and the Program Improvement Process for Equity™
- STEM Equity Micromessaging Academy
- Coaching for Educational Equity



Sunny Wren, Director of Academics, Secondary, and Dr. Natalie Nichols, Area Superintendent 2021

The team focused on the pipeline for advanced math – a key competency for many high-skill, high-wage, in-demand career paths, especially in STEM/CTE. Team members committed to analyzing root causes and disrupting the existing processes to improve student outcomes. Their work included raising awareness, in-depth data analysis to identify where student groups are underrepresented or underserved, a commitment to honing their equity lens by learning more about the ways educator mindsets and behaviors contribute to the marginalization of student groups, and a systematic approach to creating an equitable math pathway. Success has been the result of a harmonic effort from all stakeholders which included system and policy revisions, counselor and teacher buy-in and education, parent/caregiver involvement, and student engagement.

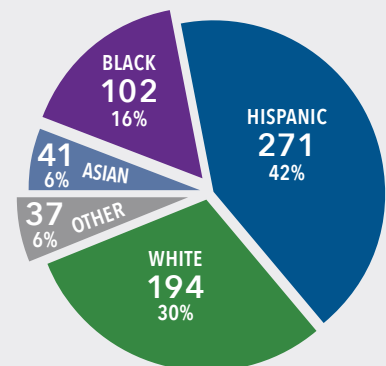


STONY POINT
LEARNING COMMUNITY

2021 DEMOGRAPHICS Hernandez Middle School & Hopewell Middle School Combined

6TH GRADE STUDENTS
645

RACE



INCOME

LOW	NON LOW
281	364
44%	56%

GENDER

FEMALE	MALE
304	341
47%	53%

- **District leaders** reviewed policies and practices to determine needed changes. Previously, students were enrolled based on qualifying examinations, required teacher recommendations, and minimal performance (grades and state examinations), and they faced a withdrawal process if unsuccessful. SPLC revised its policies and practices to automatically enroll students into advanced math with intervention support.

The revised system fosters open enrollment, systems for supporting students who struggle, and the automatic enrollment for students meeting benchmarks (changed from an “opt-in” to an “opt-out” approach). Leaders promoted a shift in culture to an inclusive model providing all students access to advanced math.

- **Classroom teachers** applied NAPE strategies to create supportive environments to nurture positive math identities for students. Teachers participated in regular professional learning community meetings, conducted peer observations, implemented data-driven instruction, and completed Action Research for Equity Projects.

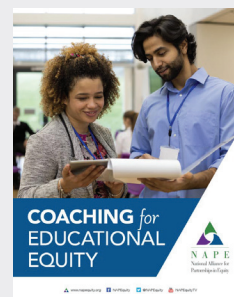
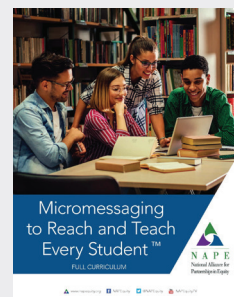
ACTION RESEARCH FOR EQUITY PROJECT (AREP)

Participants identify an equity-related opportunity for improvement, collect data, hypothesize, verify root causes, select strategies to apply, measure outcomes, present results, and determine next steps and action plans.

NAPE Educational Equity Programs

NAPE provides educators with multiple options to achieve equity through awareness, skill-building, coaching, strategies for systemic change, and leadership. SPLC educators participated in three of NAPE’s Comprehensive Educational Equity Programs over three years.

- **Micromessaging to Reach and Teach Every Student™** (offered in Years 1, 2, and 3) combines the power of micromessages – small messages that can have a big impact – with social learning theories and research-grounded strategies to create equitable learning environments where every student thrives.
- **The Program Improvement Process for Equity™ (PIPE)** (offered in Year 1 and Year 3) provides an action framework to address equity in policies and norms. It is a 5-step process – Organize, Explore, Discover, Select, and Act – to identify equity gaps, determine root causes, apply research-grounded strategies, measure, and track results.
- **Coaching for Educational Equity** (offered in Year 2) equips educators who have completed the Micromessaging Academy with coaching strategies and deepens their equity knowledge.

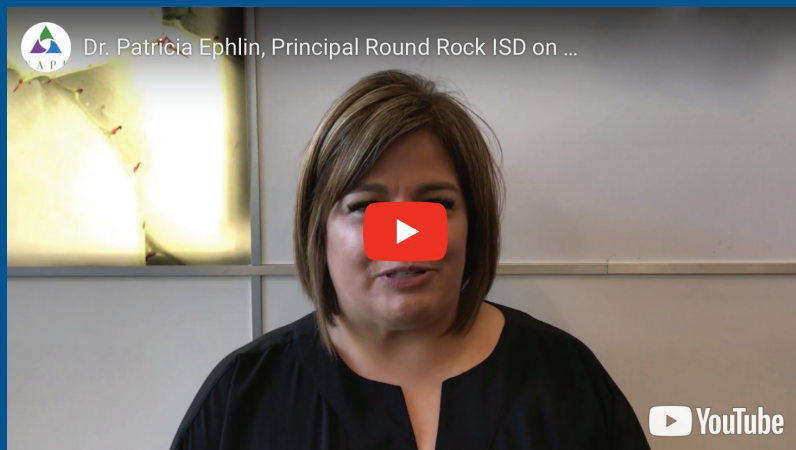


Each of the three programs includes training/facilitation, Professional Learning Communities, and Action Research for Equity Projects.

In April of each year, NAPE holds the National Summit for Educational Equity to provide a variety of robust, research-based, effective, and promising practices for every audience interested in advancing student achievement through educational equity. SPLC leadership presented their findings and outcomes at the 2021 NAPE Summit.

- **Principals, counselors, and teachers** revised choice sheets, enhanced messaging, and presented during family information nights to increase advanced math enrollment.
- **SPLC educators** embedded equity coaching as an educator practice with feedback and strategies to create equitable student learning experiences.
- **Parents** showed up (54% - 78% participation in parent information meetings across six campuses), listened, asked the tough questions, and trusted that SPLC schools were invested in their children. Parent engagement included discussions about race and socioeconomic status as factors that should not dictate advanced math participation; the importance of decisions today affecting high school and beyond; the message that advanced math coursework is important for career opportunities and college choices. SPLC educators rebranded interventions and explained the support systems available.

Effective, repeated two-way communication between middle schools and parents was paramount. By ensuring collaboration between instructional coaches, counselors, mathematics teachers, and Title I parent liaisons, parents, and students received information about advanced math courses, summer enrichment programs, and classroom supports that resulted in both increased enrollment and improved student advanced math success.



NAPE EQUITY TRAINING VIDEO (1:02)
DR. PATRICIA EPHLIN, PRINCIPAL ROUND ROCK ISD ON DEVELOPING AN EQUITY LENS
youtube.com/watch?v=jt81fay_7SE

Get Ready For Your Future

E³ ALLIANCE INFOGRAPHIC POSTER TO HELP PARENTS AND STUDENTS IN COURSE SELECTION AND CHOICES RELATED TO THEIR GRADUATION PLAN



ENGLISH (PDF)
bit.ly/30PbWlm

SPANISH (PDF)
bit.ly/30RxWfz

- **To listen to and hear student voice**, SPLC educators created a system for ongoing student feedback through surveys and focus groups. They asked students about their math interests. Educators intentionally used specific self-efficacy-building strategies to provide students with math mastery experiences, role models whose careers highlighted math skills, and student math mentors. SPLC launched a summer math enrichment program to prepare students for advanced coursework and to create a student network of peer support. The focus embraces what students need to increase success. SPLC will continue to gather feedback from students to better understand how educators can add value to the student learning experience.

The Summer Math Enrichment Camp provided multiple mastery experiences to strengthen students' conceptual understanding of key math concepts and create habits of mind that build positive math attitudes and math self-efficacy. The camp allowed students to build positive peer relationships and a lasting support system. SPLC educators created content centered on problems that are important to students and used strategies to create independent learners. Student voice and feedback were prioritized to increase advanced math enrollment and student success.



"My advice for Algebra 1 students is to always believe in yourself, and you are not going to get it the first try, but you will get it later."

– Jania, 14 years old (likes to eat, watch Netflix, and play the violin)



"Having a math identity is the way you apply yourself to math. My math identity is valuable given the fact that I work hard for it, and it gives me opportunities."

– Adriana, 14 years old (likes dance and theater arts)



"My motivation in class is knowing I am ahead of the game, of reaching my ultimate goal of being a psychiatrist or psychologist."

– Jasmine, 14 years old (likes video games)

"If their child challenges themselves now in school, it will help them with the challenges they face in life."

– John A. Jackson, Parent

Sample Summer Math Enrichment Program Outreach Letters



CLICK TO DOWNLOAD

bit.ly/3nJ76dw

Results

The results are significant and continue to provide access to advanced math courses for SPLC sixth-graders. All student groups increased their advanced math enrollment. **Over three years, enrollment in Pre-AP math more than doubled from 33% to 75%, all demographic groups improved,** and participation of students from low-income households increased from 16% to 65%.



STONY POINT
LEARNING COMMUNITY

PERCENTAGE OF 6TH GRADERS ENROLLED IN PRE-AP MATH

2017-2018		2020-2021	
ALL 6 TH GRADE STUDENTS			
33%		75%	
DEMOGRAPHICS			
ASIAN	63%	ASIAN	93%
BLACK	17%	BLACK	63%
HISPANIC	25%	HISPANIC	72%
WHITE	46%	WHITE	82%
OTHER	42%	OTHER	70%
INCOME			
LOW	16%	LOW	65%
NON LOW	56%	NON LOW	82%
GENDER			
FEMALE	35%	FEMALE	74%
MALE	31%	MALE	75%

“I am excited to support the great work the learning community has done in Creating Futures without Boundaries for our SPLC students. Even through the pandemic, our families and teachers remain committed to this important work.”
– Dr. Travis Mutscher, Area Superintendent



“I am so impressed with NAPE’s incredible work with the Stony Point Learning Community to remove barriers to student participation in advanced math classes in middle school. I have observed growth in student self-efficacy and academics and the number of students enrolled and successful in Algebra I by 8th grade. Round Rock ISD will continue to partner with NAPE to grow these concepts with educators at other schools in the district. We are excited to see how far our students go.”
– Dr. Brenda Agnew, Director of Equity and Planning, Round Rock ISD



“The combination of a committed team of Round Rock ISD educators with E³ Alliance research and NAPE equity strategies is yielding positive results for students. NAPE is honored to partner with E³ Alliance and Round Rock ISD in Creating Futures without Boundaries.”
– Tegwin Pulley, NAPE Texas Director



Next Steps

SPLC educators are undertaking an ongoing process to hone their equity lens, examine systems, work with parents and listen to and hear students. They understand that until their practices and beliefs become a sustainable part of the fabric of a school's culture, regular close monitoring with revisions and feedback are critical to success. SPLC educators continue to participate in NAPE programs and review their advanced math enrollment data and student feedback. They conducted a student self-efficacy study and learned that students view educators as a strong source of social persuasion support.

SPLC educators are engaged in action research for equity and have regular professional learning community meetings to share experiences and strategies to engage students. They are growing their network of educators involved in this work by inviting Micromessaging Academy graduates to join the current cohort for ongoing professional learning community discussions. The **"Won't You Be My NAPEr?"** program values educator interest in continuing the equity journey, with the ultimate result – more students having educational experiences that position them as successful contributors in the advanced math pipeline and in life.



Due to the success of the SPLC, Round Rock ISD has broadened its commitment to equity. It plans to implement NAPE comprehensive educational equity programs across the district so students in their many learning communities can benefit from this exemplar of systems change.

"Working as the Local Collaborative Leader for the equity learning community,



I have had the chance to see educators experience amazing growth in their awareness and understanding of the roadblocks that exist for students. "Won't you be my NAPEr?" is a meeting space to continue the discussion, grow together, and expand on our work with NAPE. Taking steps to support each other in our equity journeys is invaluable!"

- Kimberly Rowe, Instructional Coach, SPLC

"Partnering with E³ Alliance and the Central Texas School Districts



has demonstrated the power of collaborative equity efforts. Moving beyond increased awareness to implement equity actions is a mission realized. Educators and students benefitted from the system changes. Teachers invited students into the learning with a candid belief that every student can be successful along the advanced math pathway."

- Audrey Selden, JD, NAPE Lead for E³ Alliance

About NAPE

The National Alliance for Partnerships in Equity (NAPE) Education Foundation's mission is to implement effective solutions for increasing student access, educational equity, and workforce diversity. NAPE strives to create equitable learning environments where every student thrives and receives an education that prepares them to earn a living wage. We provide data-driven research, training, and evaluation to transform education and workforce systems at the individual, institutional, and system levels. We approach our work of broadening opportunity and success where equity and identity intersect to include gender, race, culture, ability, and socioeconomics.



N A P E