

October 2020

education

Overview of the Family Math Roadmap

Family Math gives us the opportunity to address early math gaps

What we know



The average child from a low-income family has heard 30 million fewer words by age 4 compared to their peers from higher income families

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Of children from low-income families **fewer** than 10% can count to 20 in preschool, a skill that correlates to the strongest math achievement in 1st grade

Why Family Math?

Families reading to and with children is common, and a critical tool in building language proficiency. But families are a largely untapped resource for engaging children in mathematical activities and conversations that build foundational knowledge and skills.

While families—even those who have been described as "at risk"—engage in a great deal of math play and math talk, many do not see what they are doing as math, nor do they know the power of early math as a driver of later learning and achievement.

By empowering families and communities as the experts they are to teach and reinforce math skills and confidence, we have an opportunity to address early math gaps before they form.



Starting in 2016, several foundations started collaborating to lift up and support the connections around Family Math happening in the field

Efforts to Build a Family Math Movement

2016

An initial phase to launch the effort:

- Convening of early and family math stakeholders
- Request for proposals (RFP) to fund projects that could move the field of family math forward

2018

- Convening of over 80 diverse stakeholders to co-design the Roadmap
- Launching of the Roadmap Implementation Project
- Coordinating Committee created to serve as leadership group for the Roadmap

2020

- NAFSCE selected as the new home for the Family Math project
- Begin development of next three years of Roadmap

2017

A second engagement to continue the work:

- Landscape scan of the family math field
- Advisory group and convening of family math stakeholders to draft preliminary Roadmap

2019

Workgroups launched to:

- Identify and elevate promising family math practice
- Develop a network of advocates
- Develop a theory of change
- Design and execute a funding process to support pilot projects

Funders













The roadmap is based on a three-year theory of action (2018-2020) that focuses on efforts in four areas: research, practice, policy/advocacy and roadmap coordination

To address this challenge:

the unity and coherence to help close achievement gaps, provide opportunities for families to support children's math learning and address systemic challenges facing low-income families and families of color in particular

We will work to ensure that:

Families will increase understanding and use of home and community practices that support family math

Researchers will co-construct a culturally responsive, research agenda, measures and methodologies

Policymakers and advocates will promote parent leadership and engagement, provide funding, and link to other early learning efforts

The family math field will have the infrastructure, resources and capabilities in place to support the coherence and coordination of local, regional, and national efforts

In order to reach this ultimate impact

All children and families, regardless of background, have access to culturally responsive math opportunities and achievement gaps in early math are eliminated

The landscape scan findings and feedback from the January 2018 convening led to this working definition of "family math"



By "math" we mean the promotion of numeracy and the conceptual understanding of mathematical concepts. We believe "math" includes math games, activities and math practices embedded in everyday moments.

By "family" we mean the parents, extended family members, friends, and community members who serve as caregivers for children and participate in the development of their early math skills and thinking both at home and their community.





By "family math" we mean activities that happen outside of the classroom and within the context of family relationships, the community and everyday life that support young children and families to:

- Strengthen their math awareness and math concepts
- Feel enthusiastic and confident about their math abilities and develop strong math identities
- Understand and use resources to help improve understanding of math concepts



And highlighted three themes that are critical to effectively implementing a three-year roadmap for family math

1

Engage families systematically and meaningfully

- Early math advocates have not seemed to deeply consider families as stakeholders in creating high quality math learning for early learners but family engagement is crucial for the success of family math
- Family math must address the cultural and structural barriers that prevent families from intentionally engaging in math activities with early learners and this requires family input and engagement

2

Provide more communication and advocacy

- Families need more readily accessible information about specific activities they can take to enhance children's early math skills. Take advantage of informal spaces (libraries, museums, bus stops, doctor's offices) to inform families about specific actions they can take to build early math skills
- Family math needs both a definition and "brand." The field needs a limited but compelling policy and advocacy agenda and national and local champions

3

Provide a "home" for family math

- The development and coordination of an advocacy and policy agenda for family math needs a "home" with dedicated attention to integration of family math into the larger early learning, early childhood, family engagement fields.
- This "home" can be a standalone organization or could live within another organization and should:
 - + "Own" the roadmap and convene stakeholders regularly to review and assess progress against the three-year agenda
 - + Identify partnerships to support development and expansion of specific areas of the roadmap



Vision, Mission and Values

The Family Math Coordinating Committee has developed vision, mission and values statements for the Coordinating Committee and the Roadmap Implementation project



Vision Statement

We envision a world where race and income no longer predict opportunities for young children and families to learn, practice and enjoy math. Families will be elevated as leaders in children's early math experiences. Young children of all backgrounds will engage in vibrant and plentiful culturally responsive math learning opportunities that prepare them for success in school, career and life.



Mission Statement

The Family Math Roadmap Implementation project works with families to help young children and families see and enjoy the math all around them. We seek — through family and community partnerships with advocates, policymakers, practitioners and researchers — to break multi-generational patterns of inequities by providing the foundational tools, supports, and communication necessary to close early math opportunity gaps. We seek to ensure that all children — but particularly those from low-income communities and communities of color — see themselves as math learners equipped with the attitudes, confidence and experiences necessary to grow math knowledge and skills.



Values statements for the Family Math Roadmap Implementation project



Equity is our first priority

→ Supporting the families of color and low-income communities that have historically been denied equitable resources and supports is our first priority. Socioeconomic gaps in math attainment exist before formal school begins and opportunity and achievement gaps between white students and students of color grow as formal education progresses. We devote our efforts and energies to working with these historically marginalized communities.

Math is for everyone

→ Research shows that entering kindergarten with early math skills is the best predictor of 8th grade performance regardless of race, gender or family socioeconomic status. We respect the power of math and its constant presence in our lives. We believe in a future in which everyone feels enthusiastic and confident about their math abilities. We envision a future in which math is fun for everyone and no one apologetically says—in any language—"I'm not a math person."

Families Lead

→ This Roadmap is designed to help stakeholders partner with families to identify, create and share positive math experiences with their children. We find opportunities to amplify current family leadership and find new venues to elevate families as leaders in Family Math implementation.



Values statements for the Family Math Roadmap Implementation project



Focus on strengths

→ We believe in the power of families and communities. Each and every community has strengths that they use to support their members and their children. We work with families and communities to lift up their strengths to provide positive, enriching and culturally responsive math experiences for children.

Strategies that work

→ Finding, creating and sharing effective resources that families can use to deepen their understanding and enjoyment of math is at the core of our work. We value learning from the successful experiences of families. We take an intentional and balanced approach to implementing the Roadmap, using strong, high-quality Family Math research and practices, advocacy and policy changes to create the conditions that allow us to realize our vision.

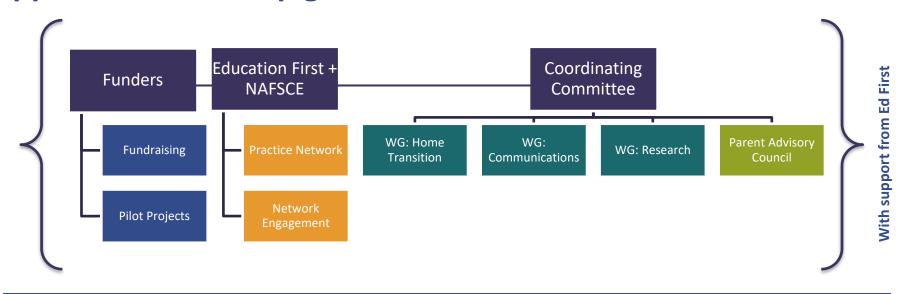
Partnerships and collaboration

→ Our success depends on open and honest partnerships. We seek to collaborate with a diverse set of organizations and individuals within and beyond the Family Math Roadmap implementation project – particularly families - to advance our common goals for children's success. Our collaboration prioritizes shared progress over individual efforts.



Organization Structure

Our Coordinating Committee infrastructure is designed to support our Roadmap goals



Year Three Structure (August 2020 – July 2021)

- Year 3 workgroups:
 - **+ Home Transition** (transitioning the Roadmap Project to the long-term, sustainable home for the movement at NAFSCE)
 - Communications (liaison to/oversight of communications firm and development of branding, messaging, etc.)
 - + Research (ongoing focus on research and measurement agenda)
- Workstreams/Roadmap Leadership (led by Coordinating Committee members and Ed First and NAFSCE):
 - + Parent Advisory Council develop family toolkit
 - **+ FM network engagement** create/disseminate newsletter, action alerts
 - + Practice Network provide network support, facilitation and shared learning

Leadership is provided by the Coordinating Committee









Early Math Collaborative





















And, over Year 3, we will be transitioning to our new "home" organization - NAFSCE! A milestone for the Roadmap Project



- The National Association for Family, School, and Community Engagement (NAFSCE), with its lead partner, the Early Math Collaborative at Erikson Institute, has been selected by the Coordinating Committee of the Family Math Roadmap Project to lead the national movement to advance family math
- The Institute for Educational Leadership (IEL) and the Mid-Atlantic Equity
 Consortium (MAEC) will also serve as partners in the initiative.
- As the first membership association focused on advancing family, school, and community engagement, NAFSCE's work is centered around parents and families, with equity as one of its core organizational values. The organization has provided leadership on several national multi-stakeholder initiatives



What We Have Accomplished to Date and Priorities

Some of our key accomplishments over the past year include:

- We have implemented intentional structures within the Roadmap Project to engage and involve families through a partnership with UPLAN to create the Parent Advisory Council (PAC). This work launched in June 2019 and three parents from the PAC serve on the Coordinating Committee. The PAC is currently finalizing content for a Family Math Parent Leadership Toolkit to be designed and tested in various communities this year.
- We selected Big Duck, with guidance from the Coordinating Committee, and created a public relations campaign and communications strategy for the Family Math movement.
- We launched a request for proposals (RFP) process to support community Family math efforts. We received ~216 LOI applications, which kick-started the growth of our database to over 400+ Roadmap participants today. And we funded projects in two communities (Compton, CA and Worcester, MA) and established a Family Math Practice Network for all six Learning Community Grant finalists.
- We published a Family Math literature review, <u>Reviewing the Family Math Literature:</u>
 <u>Recommendations for Policy, Practice and Research</u> consisting of a review of relevant articles in early math, early childhood education, community-based early learning, family engagement, and other areas germane to math education for children ages zero to eight
- We have created a Family Math research plan, a theory of change, draft measurement principles and analysis of LOI responses intended to guide the development of Family measurement tools.
 education first

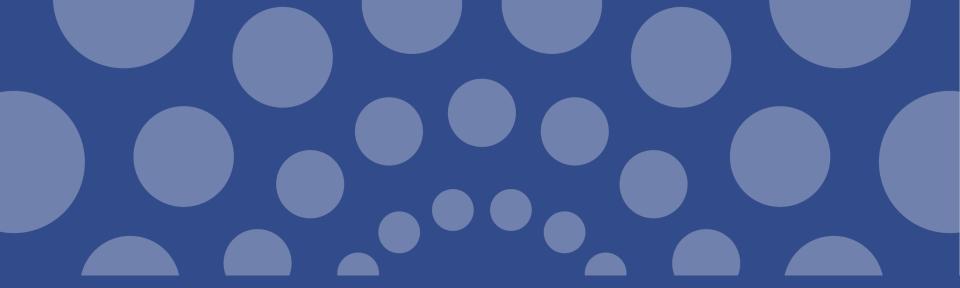
Proposed Year 3 metrics to deepen the work from Years 1 and 2 and support the transition to the new Home organization

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By the end of Year Three...

- We will have successfully **transitioned to the Home organization**, including the Coordinating Committee, Work Groups, and participating organizations.
- We will test and finalize a **communications campaign identity** with key messages, visuals and branding, and develop a **tactical communications plan** that will include launching a permanent website for Family Math initiative.
- We will have used the Family Math research agenda to identify research questions, elevate issues and ideas, and establish short-term objectives.
- We will have **designed and tested the FM Parent Leadership Toolkit** and begun using it to support family/parent capacity to engage in Family Math practices at home and advocate for Family Math in their communities.
- The Practice Network will expand and engage participants in improving/enhancing and/or aligning on Family Math practices and will (collectively or individually) disseminate practices under the Family Math movement umbrella.
- We will continue to **grow and expand leadership and partnership** for Family Math across diverse stakeholders and organizations.
- We will continue to activate past and new national funders to support the Family Math Roadmap implementation project and the full transition to the new Home organization.





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