

Ed Prep × Family Math Convening: Executive Summary

April 2026

Between October 2025 and February 2026, the Center for Family Math (the Center) at the National Association for Family, School and Community Engagement (NAFSCE) convened a cross-sector group of parent leaders, classroom teachers, math teacher educators, and representatives from national organizations, once in person and twice virtually, to develop a shared agenda for preparing math teachers to partner with families. This distributed convening was generously funded with support from the National Science Foundation¹ and the Heising-Simons Foundation. The convenings focused on PreK–5 mathematics and sought to identify essential competencies, surface promising practices, and lay the groundwork for a collaborative research and innovation agenda. This summary distills key patterns and themes that emerged across all three convenings.

Theme 1: Families as Full Partners, Not Passive Beneficiaries

The most consistent theme across all three meetings was a call to reposition families as co-designers, co-educators, and decision-makers both in their own children's classrooms as well as in the educator preparation process. Participants repeatedly challenged deficit-oriented framings of family engagement, arguing that families already engage in rich mathematical thinking in everyday life and that educator preparation must be redesigned to reflect this. Specific patterns that emerged included:

- Families should co-design curriculum, assignments, and learning experiences alongside educators, instead of simply participating in activities designed without them. Accordingly, educators need to be prepared to welcome and invite this form of engagement.
- Lived experiences of parents, caregivers, and extended family members should shape what counts as mathematical knowledge and how that knowledge is engaged in classrooms. As such, math teacher educators must bring this knowledge into pre-service coursework and clinical experiences so that educators have the skills and tools to make this knowledge visible and infused within their math teaching and learning.
- Authentic math teacher education requires going beyond university walls, for example by holding courses and activities in trusted community spaces, and structuring experiences around families' existing routines rather than adding new obligations.
- In discussing a possible Partnership Lab, participants pushed to sufficiently distinguish between family involvement (families doing tasks) and genuine family partnership (families holding decision-making power), as well as for explicit language requiring shared leadership in project design.

Theme 2: Reframing Mathematics as Joyful, Relational, and Cultural

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Across all three meetings, participants challenged the dominant view of mathematics as abstract, procedural, and solitary. Instead, they advocated for a view of math as deeply human and rooted in everyday life, language, culture, and play. This reframing was seen as essential both for expanding who sees themselves as a "math person" and for making family engagement feel natural rather than forced.

- Math anxiety among students, caregivers, and even teachers was identified as a significant barrier. Joyful, game-based, and exploratory experiences were proposed as antidotes, with an emphasis on strategy and reasoning rather than speed or competition.
- Multiple examples illustrated how everyday activities (comparing objects, cooking, navigation, games) contain rich mathematical content. Participants stressed that recognizing and building on these family funds of knowledge should be a core competency for teacher candidates.
- Cultural and linguistic dimensions of math learning were repeatedly highlighted. Instruction that centers a single "right way" to do math was identified as a barrier, particularly for multilingual learners and families.
- Joy was framed not as a nice-to-have but as an equity practice, because it can make math feel approachable and relevant to those who have historically been excluded from mathematical identity.

Theme 3: Teacher Preparation Must Be Redesigned, Not Supplemented

Participants consistently argued that adding a unit on family engagement is insufficient. Meaningful change requires structural redesign of educator preparation programs, including coursework, clinical placements, faculty practices, and institutional incentives.

- Family Math should be both a dedicated area of study and a thread woven throughout methods courses, practicum placements, and content instruction, rather than siloed into a single elective or module.
- The competencies needed for math teachers to engage families effectively and meaningfully are clear and were articulated with help from this convening through the [Family Math Core Competencies](#).
- Teacher candidates need authentic, real-world experiences with families, not just readings about engagement. Promising practices identified included home visits, community walks, co-teaching with parents, volunteering at Family Math events, and observing parent-teacher conferences.
- Programs should hold some coursework in community settings and co-develop curriculum with families, ensuring that family knowledge and culture actively shape what is taught.

Coursework Strategies	Clinical Experience Strategies
• Include Families as Faculty. Invite families to serve as guest speakers, mentors, or co-instructors, sharing their lived expertise and perspectives. • Develop and Share Family Resources. Have aspiring math teachers create parent newsletters focused on family math activities, updates, and strategies for supporting learning at home. • Hold Courses in Community Settings. Offer teacher preparation courses in community schools or centers to ground learning in authentic family contexts. • Use PhotoVoice and Storytelling. Have teacher candidates document and reflect on family math experiences through photos, videos, or narratives, highlighting everyday math practices. • Integrate Digital Learning Tools. Incorporate technology that connects families and teachers in interactive, accessible ways, such as digital math journals or shared learning platforms. • Design Curriculum Collaboratively. Engage families and educators in co-designing math curricula, ensuring content reflects cultural relevance and community values.	• Conduct Home Visits. Provide structured opportunities for home visits so teachers can learn directly from families' perspectives and experiences. • Serve as Math Tutors. Engage pre-service teachers as math tutors for children and families to build confidence, empathy, and relational trust. • Practice Recognizing Funds of Knowledge. Encourage candidates to identify and build on the cultural, linguistic, and experiential knowledge that families bring to math learning. • Observe and Conduct Parent-Teacher Conferences. Have candidates sit in on and lead conferences to learn effective communication and family engagement strategies. • Volunteer at Family STEM and Math Nights. Design, support and facilitate family math or STEM events, seeing families in informal, strengths-based learning settings. • Gather Feedback from Families. Conduct surveys and focus groups with parents to better understand their goals, expectations, and experiences around math learning. • Participate in Community Walks. Explore local neighborhoods and communities to see where and how math lives in everyday life, and connect curriculum to those experiences. • Co-Teach with Parents. Create opportunities for teachers and parents to co-teach math lessons, modeling shared responsibility for learning.

- Faculty development and institutional support are necessary conditions. Without administrative backing, compensation for family contributors, and integration into accreditation standards, these practices risk remaining marginal.
- In discussing the piloting of new practices, participants warned that compressing innovations into a single semester may preclude the building of meaningful trust with families, suggesting multi-phase or full-year models.

Theme 4: Systemic Barriers Require Systemic Responses

Participants named a layered set of obstacles, such as structural, cultural, and political, that currently prevent Family Math from being embedded in educator preparation. Notably, these barriers were described not just as individual challenges, but as symptoms of deeper inequities in educational systems.

- High-stakes accountability systems were seen as pushing teachers toward rote instruction and away from the relational, exploratory approaches that family engagement requires.
- Policies, licensure standards, and accreditation frameworks rarely require or reinforce culturally responsive or family-centered practice. Only a minority of states include meaningful family engagement competencies in licensure requirements.
- Logistical barriers, including scheduling, transportation, language access, immigration-related concerns, and background check requirements, can exclude the very families most important to engage.
- Power dynamics between educators and families, particularly those from historically marginalized communities, were named as an underlying challenge. Trust cannot be assumed, rather it must be intentionally built over time.
- To address these challenges, participants called for embedding Family Math in national standards (e.g., AMTE, CAEP, NAEYC), integrating it into state policy guidance, and creating cross-institutional networks to support spread and sustainability.

Theme 5: From Isolated Practices to a Connected Field

A recurring observation was that many promising practices already exist, in individual classrooms, preparation programs, and community contexts, but remain invisible to the broader field and are rarely studied or systematized. Across all three meetings, participants expressed a strong desire to build an infrastructure for collective learning.

- There was enthusiasm for creating a shared repository of examples: family-engaged clinical experiences, course assignments, video testimonials from parent leaders, and culturally grounded math activities.
- A proposed "Partnership Lab" mini-grant structure would support small, manageable pilots, embedded in single courses, small cohorts, or short clinical experiences, with documentation designed to generate learning for the broader community, not just proof of impact.
- Participants emphasized starting small and building iteratively, with seed projects serving as design experiments rather than full program redesigns.
- The distributed convening itself was seen as a model for the kind of cross-sector collaboration needed by bringing together parent leaders, teacher educators, classroom teachers, and organizational representatives as equal contributors.

Emerging Priorities for the Field

Taken together these themes suggest that rather than moving forward with a targeted spark grant program to fund mini-innovations around the nation that it would be more appropriate to implement a three-pronged vision for advancing Family Math in educator preparation, that includes:

- A comprehensive online hub that highlights Family Math Core Competencies as a shared framework and professional language for the field, key Family Math approaches in educator preparation, and other research-based tools and course assignments;
- An ongoing cross-sector community of practice to incubate and assess new educator preparation approaches, and that center family voices both in the community of practice itself as well as in the co-design of small, well-documented pilot projects.
- National partnerships that influence policy and institutional standards, for example with AACTE, NAEYC, AMTE, CAEP, and NCTM, in ways that embed Family Math into educator preparation standards, accreditation criteria, and policy frameworks.

In summary, the distributed convening reflects a community in the early stages of building something new: a field-level commitment to preparing math teachers to partner with families in equitable, joyful, and culturally grounded ways. The energy across meetings, from brainstorming to articulating priorities for the future, suggest that participants are ready to move from ideas to action.