

To: The Education Trust

February 18, 2025

From: The MassINC Polling Group

Re: Summary of findings from focus groups on numeracy in the fall of 2024

The MassINC Polling Group (MPG) conducted two focus groups on numeracy in the Fall of 2024 among parents and guardians of Massachusetts K-12 students. The focus group was among parents who identified at least one of their children as currently or previously struggling in math (based on screener questions) This project was sponsored by The Education Trust in Massachusetts (Ed Trust).

Key findings

- 1. Parents describe uneven access to academic support, often trying to fill in where help is needed most.** Many parents feel instruction lacks flexibility to meet diverse learning needs, especially for students with Individualized Education Programs (IEPs). Additionally, the lack of timely feedback from teachers makes it difficult to address learning gaps before moving on to new material. As a result, many parents seek outside support, such as tutors, to help their children succeed.
- 2. Parents struggle to get a clear picture of their child's academic progress due to inconsistent feedback and conflicting grades.** Some parents only realize their child is struggling when it's too late to intervene, making it harder to prevent them from falling behind. Many rely on both classroom grades and standardized assessments, such as MCAS, but discrepancies between the two create confusion.
- 3. Math anxiety is a significant barrier to learning, with some children experiencing severe stress, panic attacks, or emotional distress due to math.** Many parents said that their children experience math anxiety, with some having panic attacks or emotional challenges in response to their math classes and work. Pressure from doing math itself, standardized tests, or timed exercises increase stress for some students. Some parents describe their children as overwhelmed and in turn disengaged which ultimately leads feeling disconnected to math.
- 4. Parents see math as essential for their children's future, but struggle to provide help at home.** Parents struggle to help their children with math due to differences in teaching methods from when they learned math. Many parents turn to YouTube, tutors, and workbooks for support, but frustration among parents is clear when they try to help their children with math. However, a majority of parents believe math is not only important, but essential for their children's future careers.

Key finding 1: Parents described uneven access to academic support, often trying to fill in where help was needed most. Many felt instruction lacks flexibility to meet diverse learning needs, especially for students with Individualized Education Programs (IEPs). Additionally, the lack of timely feedback from

teachers makes it difficult to address learning gaps before moving on to new material. As a result, many parents sought outside support, such as tutors, to help their children succeed.

Many parents said that their children seem to struggle most with problem-solving and especially showing their work in the way it was taught. Some of their children, particularly those who excel at mental math, struggled when required to document their problem-solving steps, even though they could produce the correct answer. Parents expressed confusion and frustration with how math is taught and feel their child isn't always learning in the best possible way. Many feel that the instructional methods used in class don't always address the individual needs of students who require more support, and often those students feel left behind. Some described it as disengagement from the teachers, and others feel their children don't get the support they need when struggling. Parents feel that these gaps are contributing to their children's ongoing struggles with math.

A common concern among parents that ties to instruction is lack of timely feedback, which in turn prevents parents and students from addressing areas where they are struggling before moving on to the next topic. Without quick and specific feedback, students don't have the opportunity to fully grasp key concepts, which can lead to compounding difficulties as the year goes on. This lack of support in the classroom means that many parents are left to seek outside help, such as hiring tutors, to help their children catch up.

- “And when my graduate went through the school, it felt like the teachers were totally involved, fully engaged in teaching. **And for my junior, who's going through the school with the same instructors, I feel like they are not as engaged.** And I can't say that it's the teachers or the students, but the experience feels very, very different...**And the instruction and the collaboration it just wasn't there like it was a few years back.**”
- “So, my kid, that struggles, it's actually the year for his 3 year evaluation and I specifically requested extra math testing. **He had math supports, and then they were taken away, so I think that he still needs them.** He's not doing so great right now, **things are either really easy or really hard, and he can do stuff in his head and then he can't do it at all,** and you know, I think there's dyscalculia, so we'll see what happens. But he gets resistant when something's too hard.”
- “...some of it is really easy, but you know, doing multiplication tables like, **he's in 10th grade, he still couldn't tell you what 8 times 7 is off the top of his head...and word problems, too, are very difficult.** But like algebra concepts are fine, but he's also, you know, **he's got stuff in his head and he doesn't know why he has to write out what he is doing, you know.** It's showing the work that is very difficult, partly because of severe dysgraphia...So like different skills that are really far apart from each other, certain things are really easy, certain things are really hard.”
- “**So, with my son, he does excel in math, but the reason why is that he is very good at doing a lot of it in his head.** So, when he was forced, because, you know, obviously, you have to show your work, he, for some reason, **when he had to put it down on paper he struggled with that in terms of like - he'd make a lot of more errors doing it on paper than doing in his head.** And I think because he got so used to doing, you know, just computing everything internally versus having to write it out, he'd misstep, skip steps because he knew what he was doing, you know, conceptually, but to like show it was very hard, and that's why, he'd get mad when his grade would be lowered.”
- “**He does struggle a lot with math, but also just all his topics, since he does have an ADHD and Autism diagnosis,** and he struggles to focus a lot in school, and a lot of it is us learning the material with him at the same time to try to catch him up. **Getting him access to like after school tutors like volunteer tutors, and**

then, like weekend programs as much as possible to help him catch up. It's been kind of successful, **but only when people are really on top of him for things.** Hopefully that gets better as he gets older.”

- “I feel like a lot of teachers, or maybe it's the school itself, they don't care. **They just want students to live in their world, instead of trying to understand how the child learns.**”
- **“My daughter was so ready to be a serious student, but there's no challenge, no excitement. It's just busy work.** She's struggling, and they brought in a teacher who doesn't seem to know how to teach.”
- “When my son is struggling, they pull him out of class for extra math help, but I'm not sure how much he's absorbing. **At least he wants to try, but sometimes they lower expectations instead of really supporting him.**”
- “I mean, it's our responsibility to make sure our students are doing well and learning the skills. But **in terms of sending them to school, the expectation is that they are getting the program and the education that is expected ideally.**”
- **“...the lack of help for the Latino community, or like as a Latina woman, is horrible.** If you don't get up and do something about your kid, they should, they won't care, they won't care at all.”
- “With regard to the worksheets versus the tech...when they were in elementary school, the math teacher said, you all need a phone because you're going to need to do stuff on your phone. **They were in 4th, 5th grade and we didn't have phones for the kids, and we had to go get a phone so that our daughter could do her homework, and that was insane at the time for us...**And then to follow through with that in high school, a lot of the classes don't have books.. [and child says] **‘Oh, no, the teacher has all the notes from last year in the classroom, the Google whatever...’**”

Key finding 2: Parents struggle to get a clear picture of their child's academic progress due to inconsistent feedback and conflicting grades. Some parents only realize their child is struggling when it's too late to intervene, making it harder to prevent them from falling behind. Many rely on both classroom grades and standardized assessments, such as MCAS, but discrepancies between the two create confusion.

Parents expressed frustration with tracking their child's progress due to inconsistent metrics at times across multiple platforms, including conversations, grades, and standardized tests. As a result, it's difficult for parents to get a clear picture of their child's performance, leading to confusion and missed opportunities for intervention. Some parents mentioned they don't even know their kids are struggling until a unit is over and grades come in. Alternatively, some parents see their child struggling at home with their math homework, yet their grades show them passing or even doing well. This confusion leaves parents feeling disconnected from the learning process and unsure of how best to support their child.

Additionally, parents described the frustration of seeing conflicting grades or test results that do not align with what they perceive their child's abilities to be. Some parents mentioned that by the time they are alerted to issues, it's too late to have meaningful discussions with teachers or address the problems in a timely manner. Some parents shared that they rely on both class grades and standardized tests to understand how their child is doing, noting that of course classroom grades happen more frequently. One parent noted that when grades and standardized test results, such as MCAS, contradict each other, it becomes confusing, especially when the discrepancy isn't identified early enough to allow for conversations with teachers. This situation creates a sense of helplessness, as parents feel they are not equipped to address issues until the school year is well underway or over.

- “My son’s math grade is always okay, but then I see him struggle with basic concepts. **The grades don’t reflect the gaps he has.**”
- “My daughter has an A in math, but there are only four assignments recorded in PowerSchool. **It makes no sense—they say she needs extra help, but where was that support all year?**”
- “He gets a B, but the teacher tells me it’s only because he didn’t submit assignments, not because he’s actually struggling. **If I just looked at the grade, I’d have no idea what was really going on.**”
- “I think my concern is, **although she got an A and she’s flying through everything, I don’t know that she knows it.** It’s easy to watch a video, click a multiple-choice answer, and say, ‘Oh, I got it wrong, so it must be the next one.’ But if she actually had to produce something from it, I don’t know if she could. **She passed her MCAS when she was a sophomore, so nobody seems to worry about it as long as there’s an A attached—but an A doesn’t equal mastery.**”
- “His results in the spring and this fall were exactly the same, and to me, were not great. **He scored a 64, but I think my frustration comes from, they [his teachers] are like, “oh, he’s at grade level, that’s great”.** And I’m like, in what planet is a 64 okay? I’m like, that’s a D minus to me. So, **I’ve had to actually hire additional resources because I feel he’s a child just caught in the middle.** He’s not the top of his class, he’s not the bottom of his class. **So, they’re just going to let him pass by.** So, I had a lot of frustration with that.”
- “A lot of kids in my daughter’s class were doing somewhat well, they were getting like C minuses or whatever, but then, the last 2 semesters, their grades drastically dropped to like F’s/F minuses, **and then they just got these summer school letters say that they had to go to summer school. And they’re like, ‘well the teacher’s saying that we’re passing the classes, we’re passing our homework in, we’re passing our tests’.** And then the teacher resigned two weeks before school ended. So, I don’t know exactly what happened at [school name] last year when it came to sophomores, but a lot of kids went to summer school last year because of that math teacher.”

Key finding 3: Math anxiety is a significant barrier to learning, with some children experiencing severe stress, panic attacks, or emotional distress due to math. Many parents said that their children experience math anxiety, with some having panic attacks or emotional challenges in response to their math classes and work. Pressure from doing math itself, standardized tests, or timed exercises increase stress for some students. Some parents describe their children as overwhelmed and in turn disengaged which ultimately leads feeling disconnected to math.

Many parents described a spectrum of anxiety that their children experience around math, which can manifest in panic attacks or emotional breakdowns. Parents shared instances where their children were overwhelmed by math-related stress to the point of physically or emotionally breaking down. One parent described how their child had panic attacks in school upon realizing how difficult math had become. Some parents linked anxiety to the pressure of standardized tests or timed exercises and tests, which many of their children find particularly challenging. The fear of falling behind lead to not only stress but also feeling less engaged in math for some students.

- “Math isn’t one of his strong points, **so when they push him to do anything he doesn’t understand, he falls apart, wants to leave class,** or starts disrupting so people don’t see that he’s struggling.
- “My son has ADHD and executive dysfunction. He’s an amazing artist, but math is a real struggle for him.”

- “The amount of stress, even in the 7th grade, that these young people are under is not taken into consideration. **They don’t feel comfortable saying, ‘I don’t know how to do this,’ or ‘I need help.’**”
- “When my daughter was in 3rd, 4th **grade she used to get more anxious just doing math, and it had to do with when it was timed.** Like, if they had anything the teacher would say - maybe ‘it will be over in 5 min’, even though she knows what to write, she used to get very anxious about it.”
- “Last year, she did have some help in advisory a couple of times. The teacher she stayed after school with—maybe once or twice a week—but evidently, she still failed. **So that really wasn't any help. I ended up going online to get a tutor for her, but by that time, it was too late because they had already sent out the paperwork saying she had to go to summer school anyway...**Speaking of anxiety, like [Participant name] was saying, when my daughter realized how bad her situation was toward the end of the year, **she had two panic attacks in school.** They called me—she was freaking out in class and didn’t want to go to math anymore.”
- “My daughter [name] she has ADHD and autism. **So, because of math, it triggers her, and we get into crisis or she gets suspended.** So it's really, really, tough for me, because she's only 9 years old. Some of these teachers just push her to do the work, and she just don't like math at all.”

Key finding 4: Parents see math as essential for their children’s future but struggle to provide help at home. Parents struggle to help their children with math due to differences in teaching methods from when they learned math. Many parents turn to YouTube, tutors, and workbooks for support, but frustration among parents is clear when they try to help their children with math. However, a majority of parents believe math is not only important, but essential for their children’s future careers.

Parents face significant challenges when trying to assist their children with math due to the differences between traditional methods they are familiar with and modern techniques being used in schools. Many parents expressed frustration with not understanding the new methods, which can make it difficult for them to provide effective support at home. Some mentioned that when they try to help their children in ways they know, both parents and their children get frustrated, or their child lets them know they’re not doing it the right way. As a result, parents often resort to alternative resources to fill in the gaps, such as YouTube tutorials and Khan academy for themselves, or tutors and workbooks for their children. While these resources are helpful, it’s not a complete solution for all parents, and also some (such as a tutor) are not financially feasible options for all parents. An overwhelming majority of parents see math as important for their children’s future careers and place a high emphasis on the importance of math in general.

- **“When I try to help my kids, they say, ‘That’s not how the teacher showed me.’** Then they can’t do it themselves, and I have to Google it.”
- “I’m 52 years old, and the math I learned is not Common Core Math. It’s a totally foreign species to me at this point.”
- “I struggled with math when I was younger, **so there’s no way I could possibly help my child figure out $y = mx + b$.**”
- “Can I just add, especially when - [child’s name] says ‘you don’t know how to do it?’ and you have to pull up your phone and try to get the answer.”
- “When I tried to help my kids, ‘that's not how the teacher showed me to do it’. ‘Then why can't you get it done yourself? Do it yourself,’ ‘no, but I don't understand,’ ‘Okay, that's what I'm trying to understand’. **And when it's too much for me, we're going to Google, ask Google.**”

- “...had an issue with the teachers, the teachers have said, **‘please don't do the homework with your children if you can't do it in the way that they're teaching at school’**. That was a little discouraging for us.”
- “So I'm a big ‘what did your teacher give you for resources’ person. So, with my daughter, she's the one that the teachers don't give a ton of instruction and just be like “here you go, good luck!” So to help her I always say, ‘Well, what did your teacher give you for resources?’” And sometimes she doesn't even know. **So we have to go through the Google classroom and find all the resources, but sometimes they're there. We, we rely on Youtube, a lot, we Google stuff, we go on Khan Academy a lot and look for that.** Fortunately, her teacher this year is using Khan Academy as part of their curriculum. So that's a little bit better because she has good access to better videos. But yeah, I was able to help her until about 10th grade, and then after that, I just couldn't remember how to do some stuff. But Youtube is probably our biggest resource to help her with her math.”
- “My kids are convinced that math is not going to relate to their industry. Like one is a welder, one is a cook, one wants to go to trade school for automotive. **And I'm trying to convince them that everything that they're going to do is math.** How can you cook and not have math related everything in fractions? You know? How can you not do this? Grams and your liters? I was like, how can you not do this?”
- “We need to be able to do math. I mean simple math and multiplication tables, sure, **but you know fractions and percentages and grocery shopping and understanding that this is 10% off, that stuff should be basic, basic, basic - 3rd to 8th grade.** You need to know those things. If we can't do basic math, we're gonna just fail just in all over the place.”

Appendix – Live survey question results

Note: These are responses from selected poll questions that were posted live during each group.

Focus group 1-

A1. Hand raising question 1 - dyslexia

Question	Response options	Count
Show of hands for dyslexia? Another disability that impacts math?	Dyslexia	1
	Another disability	4
	Total	5

A2. Hand raising question 2 – Math abilities

Question	Response options	Count
How would you rate your child's overall math abilities this year?	Advanced	3
	Proficient	5
	Average	2
	Needs improvement	1
	Struggling	1
	Unsure	0
	Total	12

A3. Hand raising question 3 – child's grades

Question	Response options	Count
Some of you mentioned grades, who thinks their child's grades accurately reflect where their math skills are currently at?	Yes	8
	No	4
	Total	12

A4. Hand raising question 4 – anxiety around math

Question	Response options	Count
Have any of your children ever experienced anxiety around math, currently or previously?	Yes	6
	Total	6

--	--	--

A5. Hand raising question 5 – split math classes

Question	Response options	Count
Can I see a show of hands, does anyone's child's class currently split their math class based on levels?	Yes	5
	Total	5

A6. Hand raising question 6 – selecting math courses

Question	Response options	Count
Have you or your child ever taken part in selecting their math courses?	Yes	4
	Total	4

A7. Hand raising question 7 – statewide math concern

Question	Response options	Count
Knowing this, would you say you are very concerned, somewhat concerned, not too concerned, or not at all concerned about students' overall math performance in Massachusetts?	Very concerned	11
	Somewhat concerned	1
	Not too concerned	0
	Not at all concerned	0
	Total	12

A8. Hand raising question 8 – parent math

When you were growing up and in grades K-12, did you enjoy learning math?	Yes	10
	Kind of	1
	No	0
	Unsure	1
	Total	12

A9. Hand raising question 9 – parent math perceptions

Thinking back to yourself as a child, would you say you were good at math?	Yes	9
	Kind of	1
	No	1
	Unsure	0
	Total	1

A10. Hand raising question 10 – importance of math for future

Do you think math is important for your child’s future career?	Yes	12
	No	0
	Unsure	0
	Total	12

Focus group 2-

A10. Hand raising question 1 – dyslexia or dyscalculia

Let’s start with a show of hands for dyslexia, how about dyscalculia? Show of hands for another disability that impacts math?	Dyslexia	1
	Dyscalculia	0
	Another disability	7
	Total	10

A11. Hand raising question 2 – math standing

How would you say your child is doing in math right now?	Doing well	1
	Doing ok	1
	Not doing well	7
	Unsure	1
	Total	10

A12. Hand raising question 3 – responsible for math levels

Given what we have discussed today and what I just shared that students	Schools	9
	School districts (superintendents, vice, other staff)	10
	School administrations (principals, VP, other key staff)	8

in MA are not meeting state math level expectations, who do you think should be responsible for ensuring students are at expected math levels?	Teachers	10
	State education officials (DESE)	8
	Parents	8
	Total	10