

Virtual Curriculum and Achievement Subcommittee Report
Thursday, May 18, 2023
Broadcast from the Media Arts Studio
454 Broadway, Cambridge, MA

Called for the purpose of discussing for the purpose of discussing the CPSD K-12 math curriculum and pathways. This meeting will end by or before 6:30 pm.

Subcommittee Members Present: Member Weinstein (Chair), Member Rojas, Member Wilson

Other School Committee Members Present: Vice Chair Rachel

Also Present: Dr. Lendozia Edwards, Chief of Academics and School, Siobhan Mulligan, Director of Mathematics.

The meeting started at 5:02 pm. **Chair Weinstein** welcomed the group and began the meeting by reading the call of the meeting and discussing the meeting's objectives. He highlighted the attendance of CPDS administrators Dr. Edwards and Dr. Mulligan and asked School Committee members to introduce themselves.

Chair Weinstein shared the agreements of the meeting's structure which included:

- Speak and listen from the heart (respect)
- Step up/step back (watch airtime)
- Progressive Stacking approach to conversation
- Expect and accept non-closure (work in progress)
- Bike rack (list of things that are important but should be addressed another time)
- Public comment participants three-minute limit to present, after which time they will be muted by the Confidential Secretary.
- If people want to speak again, they will need for the chair to call on them and be unmuted.
- The aim is to foster greater back-and-forth, which is valuable for subcommittee meetings

Chair Weinstein noted that the meeting's discussion would be building on the School Committee Roundtable meeting that was held earlier in the month but did not allow for public comment. He shared that Ms. Mulligan would be giving an abbreviated version of the Roundtable's presentation.

Dr. Edwards shared her appreciation for community feedback and noted that would be taking notes and would follow up with participants if needed. She passed the floor to Ms. Mulligan who shared a presentation which can be found on this [website](#).

Following Ms. Mulligan's remarks, **Member Weinstein** took questions and comments from community members and reminded them that comments would be limited to 3 minutes. He was hopeful that time would allow for follow-up remarks from attendees.

Sam Ribnick, a King Open parent and former math educator expressed his disappointment that opportunities for higher-level math instruction were not available to his children in their CPSD classrooms. He cited two studies related to Algebra I instruction in the 8th grade both with undesirable results: 1.) San Francisco where Algebra instruction is available in 9th grade only which resulted in fewer students taking AP math courses and 2.) North Carolina where Algebra 1 must be an 8th-grade course resulting in a

slight benefit for high-achieving students, but harmful for the lower 60%. He is cognizant that tracking students may lead to the undesirable outcome of racial and cultural inequities. He is hopeful that CPSD can move to implement multiple tracks (without creating racial inequities) and allow students to achieve at higher levels. At the 3-minute mark, Mr. Ribnick's remarks were concluded by the Confidential Secretary. **Member Weinstein** offered to circle back to Mr. Ribnick if time allowed. Ms. Mulligan was aware of the studies that Mr. Ribnick cited and shared his interest in exploring this research further.

Jacob Barandes, a CPSD parent, expressed his concern that most school districts offer Algebra 1 in Grade 8, without summer instruction, and begin geometry in grade 9. This was the previous landscape in CPSD. He believes the CPSD students are now being denied this opportunity. He is disappointed that this important issue was not taken to the voters and believes this was an unethical approach. He believes this will be a major issue in the upcoming School Committee election. He highlighted that students with financial resources are taking advantage of math resources outside of CPSD which is leading to inequities. He is a STEM professional at a top university and works with graduate students who completed calculus in high school and stresses the importance of this opportunity should the student want to pursue a STEM program in college. He would like a timeline of when Algebra 1 can be brought back into the 8th-grade curriculum.

Emily Pollock, a CPSD parent and STEM professional cited the district's abundant resources and the negative impact of students doubling up on classes to ensure they reach calculus by senior year. She believes that CPSD has drifted away from its original goal. With the impact of the pandemic, CPSD needs to ensure students receive equitable opportunities and cites the impact of some families paying for outside academic support.

Nataliya Yufa, Director of Cambridge Math Circle, thanked Ms. Mulligan for the presentation. She agreed with the previous comments of the caregivers and echoed that math pathways are problematic for the district. She shared ways that she tries to level the playing field and Match Circle works with students during the school day or after school. Students who are considered weak in math are given the opportunity to achieve and receive recognition. They have a small, free afterschool program for lower-income students to teach them algebra. She is challenged by the competing afterschool opportunities including sports and music. She is eager to share her lessons learned with CPSD. She believes that students mature in math at their rate.

Member Wilson shared her comments as she needed to leave the meeting early to join the CRLS scholarship event. She thanked the presenters and the caregivers who made comments. She wants CPSD students to feel confident in their math skills and enjoy learning. How can young people see themselves as mathematicians? She is enthusiastic about the Illustrative Math (IM) curriculum and its K-12 curriculum alignment throughout the district. She highlighted that more educators are needed in the classroom and expressed her appreciation for partners such as the YPP Calculus Project and Cambridge Math Circle.

Chair Weinstein invited Sam Ribnick to finish his comments. Mr. Ribnick highlighted a recent study in Dallas where middle school students automatically opted into honors classes based on test scores. How do we come up with equitable and accessible ways to put forward advanced math pathways in the upper schools? **Vice Chair Rachel** appreciated Mr. Ribnick's research and comments. She highlighted that CPSD and the School Committee are committed to heterogeneous groups. She expressed concern that although tracking might seem like a good solution, she is hopeful that alternative approaches can be explored. **Chair Weinstein** agreed that there is tension between heterogeneous groupings and the proposed pathways as some are not available to all 9th graders. He shared his personal experience as a student in a heterogenous academic environment. As a student placed in accelerated math, his ability to

complete his math requirements early allowed him to explore other areas outside of math. What are our best practices for our heterogenous groupings?

Ms. Mulligan thanked Mr. Ribnick for his research and noted that it aligns with her research and goals. She would like to learn more about the Dallas study. She highlighted CPSD's commitment to heterogenous groupings and underscored that Cambridge is often sought out by other districts looking for insight into this model. She emphasized that the pandemic has made it difficult to measure the effectiveness of some of their programs. She agreed with Ms. Pollack's sentiment of the importance of accessing calculus for STEM fields as well as college admissions regardless of academic major. She noted her connection to Ms. Yufa's work and underscored her connection with Sharlene Yang, Director of the Cambridge STEAM Initiative. She highlighted CPSD's stellar teachers and their commitment to teaching during the pandemic. CPSD is responding to teachers' requests for additional trainings notably in leading heterogenous classrooms. She is enthusiastic about CPSD's adoption of the IM curriculum and noted that Shady Hill and other districts are doing the same. She is meeting with Shady Hill regularly to share best practices. She is hopeful that teacher trainings, outside partnerships, and intervention blocks will help support all students in an equitable landscape. Dr. Edwards noted that the new budget allows for the training of interventionalists and math coaches and noted the importance of support for students seeking enrichment, as well as academic support. CPSD continues to undertake research and she agrees with the caregiver's comments, but CPSD is trying to determine the best approach. Ms. Mulligan noted that paraprofessionals are included in curriculum training.

Chair Weinstein appreciated the support of educators as many are coming to heterogeneous classrooms without prior experience as a student or an educator. **Chair Weinstein** posed the question if CPSD is on a path to expanding opportunities for 8th-grade algebra without summer instruction. He shared that the community says we should have a commitment to this goal and asked for more clarity from Dr. Edwards and Ms. Mulligan. Ms. Mulligan shared that she feels the conflict. She underscored that some community members believe that algebraic thinking is enough while others believe that 8th-grade algebra should be offered. She wants to do what's best for CPSD and capture all the voices and not only the loudest voices. She shared that she was a former 8th-grade algebra teacher. Research and data will tell the story and help inform CPSD's next steps.

Chair Weinstein shared that most members of the School Committee believe that 8th-grade algebra should be offered but emphasized that the approach must meet CPSD's equity goals. He noted the community's concerns that CPSD has an uneven floor. He believes that the aligned K-12 curriculum will be helpful. He wants to ensure that CPSD is not putting up ceilings.

Member Rojas thanked the speakers. He believes in the benefits of de-tracking but wants to support students who have a desire to go deeper. He cited the Amigos School as an example and the varied journeys of pursuing Spanish pathways at CRLS. Chair Weinstein emphasized the importance of understanding pathways and communicating effectively with all families. There are points of confusion that need to be addressed to better enlighten families and caregivers of CPSD's processes/teaching, such as gateway points in testing out of algebra.

Ms. Mulligan agreed that there were communication issues during the pandemic, but believes that ParentSquare has helped address some of these issues. Regarding outside programming, Ms. Mulligan wants to reach a place where CPSD students do not need outside programming and realizes the inequities that result in some families not having access to these outside supports. **Chair Weinstein** agreed with Ms. Mulligan's sentiments and agrees that CPSD should be communicating with broader grade spans. He expressed his concern that, due to misinformation, some families believe that CPSD's upper schools are underachieving

Dr. Edwards is hopeful that the new IM curriculum will be a game-changer and that everyone across the school has the same opportunities. The new curriculum will be heavy-lifting for students and will help close gaps and improve instructional gaps. Students will feel more confident. Elementary levels are important to create strong foundational skills. Ms. Mulligan shared her goal that no student will want to leave CPSD. **Chair Weinstein** believes there should be an umbrella of advanced learner support and that there is more that we can be working on as a district. He highlighted that advanced learning opportunities should be equitable and in alignment with CPSD's anti-racist approach. **Member Rojas** believes that the district can do both. He appreciated the conversation, noting that it is not an easy one, but important.

Chair Weinstein thanked the presenters and community members who participated. The meeting concluded at 6:33 p.m.