

Math Improvement Plans: Helping Students' Develop More Positive Math Identities

Summary: Math Action Plans (MAPs) are a learning support that are co-crafted with educators, students, and families, to help support “a child’s mathematical progress and developing mathematical identity” (Aguirre et al., 2013, p. 100, full reference linked in title). The creation of the plan begins with the educator sharing the school’s math vision with students and families. Educators and students then work together to craft statements on the student’s areas of strength and how these strengths can be used to support areas in need of improvement. The student, educator, and family representative meet to discuss actions each person can do to support the student. Dialogue continues between this group during routine check-ins to discuss progress. This process is designed to demonstrate that everyone is capable of learning. **[See the last page of this document for a sample MAP Template.]**

School Connection: In April 2023, three middle school math teachers created a MAP with at least one student. Educators interviewed students during their prep time and summarized their conversations in the “Mathematics Progress” section of the template. After the meetings, the educators emailed the “Mathematical Progress” to the students’ families and set up a Zoom meeting to discuss the plans. After two weeks, the educators and families conducted follow-up meetings to discuss progress on these action steps. The math educators met after their follow-up meeting with family members to discuss their experiences implementing the MAPs. The educators agreed that the creation of the MAPs increased the amount of dialogue between them, their students, and their students’ families. They also agreed conferencing individually with the students was a positive experience because the students seemed more comfortable working with them afterwards. The team is committed to introducing MAPs to more students at the beginning of the next school year.

Connection to Equity: Creating MAPs aligns with being “Releasing Control” (the “R” in the [ICUCARE equity framework](#)) because they “empower students to take ownership of their learning”. Specifically, the MAP process allows students to create action steps based on their own values. Furthermore, MAPs “draw on multiple resources of knowledge” (from the ["Five equity-based practices"](#)) by detailing the students’ mathematical strengths from conversations with students and their families.

Mathematics Action Plan

Math Vision:

Mathematics Progress

Mathematics Strengths:

Mathematics Areas of Improvement:

Mathematics Action Plan

Student Action:

Teacher Action:

Parent Action: