Contact information:

**Dina Mendola**  
Partnership Lead Specialist  
dina@mathrecovery.org  
952-378-7918

**Kristin Frang**  
AVMR Implementation Director  
kfrang@mathrecovery.org  
952-491-9861

US Math Recovery Council®  
Headquarters:  
510 Lone Oak Road, Suite 600  
Eagan, MN 55121
Overview

The Department of Elementary and Secondary Education (DESE), in collaboration with US Math Recovery Council, is pleased to offer an intensive professional development and technical support opportunity designed to collaborate with school and district teams as they develop and implement a tiered system of mathematics support.

The Tiered Math Academy aligns to the Massachusetts Turnaround Practices Research, particularly supporting:

1. Leadership, Shared Responsibility and Professional Collaboration
2. High Quality Core Instruction
3. Student-Specific Supports and Instruction to All Students

The content of the Mathematics Academy coursework and meetings will focus on:

- Developing educators' math content and pedagogical knowledge through a series of professional development courses and follow-up support
- Increasing capacity at the school and district level by developing an in-district trainer/coach
- Supporting distributed leadership
- Establishing routines and structures that support continuous improvement in instructional practices
- Improving student outcomes by utilizing data and enhancing teacher practices

---

**Our Mission:**

To **transform** numeracy education
To **connect** research with practice
To **empower** educators to advance student mathematical thinking and success...
through **Math Recovery®** principles.
Equitable Access

Focusing on teaching for equity is challenging, ongoing and critical to have the impact we strive to make. We are committed to continual learning and growth and supporting all teachers and students.

Math Recovery courses create a fluid experience with a common language and approach to mathematics assessment and instructional design across all three tiers. The courses work as building blocks, fitting together to create systems and supports which supplement and enhance the teaching of mathematics standards.

Within each course, teachers learn an asset-based, interview assessment, which focuses on students’ current strengths and how to build on those existing skills to accelerate learning for all.

Impact on Equity

All students deserve access to equitable mathematics instruction. All students have mathematical ideas and the ability to learn mathematics. Without knowing where a student truly is starting from, teaching happens with little equity, privileging those who already have the prerequisite knowledge and skills, and not appropriately challenging those who are already proficient with the learning goal. Math Recovery professional development allows teachers to identify assets within their students and push beyond possible preconceived ideas about what a student can and cannot do. The Academy experience will enhance the ability of teachers to use all data sources with an informed lens to recognize students’ assets and strengths and determine and support the needs of every student.

See Our Commitment to Equity and Anti-racism.
Learning Pathways

The US Math Recovery Council provides dynamic professional development training to educators for teaching foundational mathematics and numeracy learning for all students.

The Tiered Mathematics Academy coursework will be delivered in two tracks: Elementary Academy and Middle School Academy. When a full team completes the coursework, this will equip district and school leaders with tools to:

- Build a multi-tiered assessment and instructional model utilizing research-based methods
- Create an embedded professional development plan
- Develop systems for measuring fidelity of implementation and effectiveness of instruction
- Provide on-going support and feedback for mathematics instructional content and pedagogy

### ELEMENTARY SCHOOLS

#### PROFESSIONAL DEVELOPMENT COURSES

- **Math Recovery Specialist, Part 1 (MRSp1)**
  - Intervention & Specialization in Number Learning

- **Add+VantageMR (AVMR) 1**
  - Initial number concepts for the classroom

- **AVMR 2**
  - Advanced number concepts for the classroom

- **AVMR Fractions**
  - Foundational fractions concepts

- **AVMR Champion**
  (AVMR courses 1 & 2 and MRSp1 are prerequisites for this course)

### TEAM COMPOSITION

- **District and/or school Administrator**
  - 1+ responsible for Numeracy*

- **Coach/lead teacher/interventionist**
  - 1+ identified as an Intervention Specialist

- **Coach identified as a Mathematics Leader**
  - to support and facilitate courses in-district

- **Interventionists, Special education, ELL and Classroom Teachers**
  - Up to 12

*Administrators are welcome and encouraged to attend any AVMR and MRSp1 courses

Additional courses and pathways available by consultation. See page 12
MIDDLE SCHOOLS

PROFESSIONAL DEVELOPMENT COURSES

Math Recovery Specialist, Part 1 (MRSp1)
Intervention & Specialization in Number Learning

Add-VantageMR (AVMR) Fractions
Foundational fractions concepts

AVMR Course 1
Initial numeracy concepts for the classroom

AVMR Course 2
Advanced number concepts for the classroom

AVMR Fractions Champion
(AVMR Fractions and MRSp1 are prerequisites for this course)

TEAM COMPOSITION

District and/or school Administrator
1+
responsible for Numeracy*

Coach/lead teacher/interventionist
1+
identified as an Intervention Specialist

Coach identified as a Mathematics Leader to support and facilitate courses in-district

Interventionists, Special education, ELL and Classroom Teachers
Up to 12

Department Head or Cluster Leader (optional)*

*Administrators & Department Heads/Cluster Leaders are welcome and encouraged to attend any AVMR and MRSp1 courses

Additional courses and pathways available by consultation. See page 12
**Course Pathway Options**

Participation in the Academy begins with a series of courses where each team member learns how to administer and analyze diagnostic assessments and plan instruction based on assessment results. Schools may take different routes when choosing where to start, but all will end at the same destination.

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Elementary Option A</th>
<th>Elementary Option B</th>
<th>Middle School Option</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AVMR C1 &amp; C2</td>
<td>AVMR C1 &amp; C2</td>
<td>AVMR Fractions</td>
</tr>
<tr>
<td>Year 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AVMR Fractions</td>
<td>AVMR Fractions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MRSp1</td>
<td>MRSp1</td>
<td></td>
</tr>
<tr>
<td>Year 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AVMR Champion</td>
<td>AVMR Champion</td>
<td>AVMR Fractions Champion</td>
</tr>
<tr>
<td>Year 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Implementation Support</td>
<td>Implementation Support</td>
<td>Implementation Support</td>
</tr>
</tbody>
</table>
Example Timeline

Below is an example of what the timeline and support offered from the US Math Recovery Council would look like, if an elementary school chooses Option A from the previous page.

### Year One

**Add+VantageMR Virtual Course 1 and 2**
- 24 hours of participant time
- Synchronous: 16 hours
- Asynchronous: 6.75 hours
- Assessing Students: 1.25 hours

**Math Recovery Specialists, Part 1 Course**
- 213 hours participant time
- Synchronous: 67 hours
- Asynchronous: 36 hours

Assessments & intervention teaching with students: 110 hours (job-embedded) | Recommended grade levels K-2

### Support

Year 1 technical support focuses on administering and analyzing assessments.

Responsive technical support

Implementation & coaching support sessions

Local leadership support

### Year Two

**Add+VantageMR Fractions Virtual Course**
- 34 hours of participant time
- Synchronous sessions: 16 hours
- Synchronous collaboration: 1.5 hours
- Asynchronous: 11 hours
- Assessing & teaching with students: 5.5 hours

**Support**

Year 2 technical support includes using assessment data to plan instruction across all tiers of instruction.

Responsive technical support

Implementation & coaching support sessions

Local leadership support

### Year Three

**Champion Course**
- 61 hours of participant time
- Synchronous: 35 hours
- Asynchronous: 26 hours

**Support**

Year 3 focuses heavily on technical support for school teams, which includes implementing structures for tiered support alongside developing a school/district professional development plan.

Virtual technical support & coaching for leadership

Champion technical support to facilitate AVMR courses and implement MTSS plans for math

Implementation & coaching support sessions

Local leadership support

### Year Four

Implementation and Technical Support

Graduate credits available for most courses.

All courses listed are virtual. In-person courses available upon consultation.
Add+VantageMR® (AVMR) Courses

Professional development courses focus on numeracy development. Add+VantageMR® support elementary educators, special education instructors, math interventionists, and math coaches in diagnosing and advancing student understanding and strategies with number concepts and operations.

AVMR courses focus on whole number and fraction topics. The topics and domains identify number understandings which can present themselves as gaps in understanding for students in the elementary and middle grades. Participants leave the course ready to work with students and implement new knowledge in their teaching practices to meet the needs of a diverse range of students.

Graduate credits are available for all Math Recovery courses.

Target Audience: K-8 classroom teachers, special education teachers, Title I teachers, English language learner teachers, para-professionals, instructional coaches, and administrators

Add+VantageMR® Course 1

AVMR Course 1 includes dynamic, diagnostic assessments in number words and numerals, structuring numbers, and addition and subtraction strategies. The assessment, data collection, and teaching tools accelerate the ability of educators to recognize students’ current levels of numeracy understanding in order to inform data-driven instructional decisions. During this professional learning opportunity, participants are actively engaged in rich discussions about student mathematical thinking.

Course Commitments:

- 24 hours of participant time
  - Synchronous: 16 hours
  - Asynchronous: 6.75 hours
  - Assessing Students: 1.25 hours
- Technical assistance
Add+VantageMR® Course 2

AVMR Course 2 extends the learnings from Course 1, adding dynamic, diagnostic assessments of multiplication and division strategies and place value understanding. The assessment, data collection, and teaching tools accelerate the ability of educators to recognize students’ current levels of numeracy understanding in order to inform data-driven instructional decisions.

During this professional learning opportunity, participants are actively engaged in rich discussions about student mathematical thinking.

Prerequisite: AVMR 1

Course Commitments:
- 24 hours of participant time
  - Synchronous: 16 hours
  - Asynchronous: 6.75 hours
  - Assessing Students: 1.25 hours
- Technical assistance

Add+VantageMR® Fractions

AVMR Fractions course includes dynamic diagnostic assessments of fraction topics. This online blended learning course includes interactive independent learning activities, as well as team meetings. The course is designed to deepen educators’ understanding in this complex numeracy topic, along with diagnosing and advancing student understanding in fraction concepts. Working with students throughout the duration of the course is essential to the professional learning.

During AVMR Fractions, participants are actively engaged in rich discussions about student mathematical thinking.

Course Commitments:
- 34 hours of participant time
  - Synchronous sessions: 16 hours
  - Synchronous collaboration: 1.5 hours
  - Asynchronous: 11 hours
  - Assessing & teaching with students: 5.5 hours
- Virtual technical assistance
Math Recovery® Specialist, Part 1 (MRSp1)

Math Recovery® Specialist builds a high level of expertise in Math Recovery content, assessment, and pedagogy. This course transforms educators into highly skilled practitioners who pinpoint a child’s current understanding and develops the educator’s knowledge and instructional practices needed for students to make continuous progress in mathematics. The goal of Math Recovery Specialist is to intervene before students fall too far behind their peers, along with finding ways to support parents and classroom educators.

Math Recovery® Specialist, Part 1: Intervention and Specialist in Number for the Primary Grades has no pre-requisites. Part 1 includes the assessment and teaching topics of addition and subtraction, structuring numbers, number word sequences, numeral identification, and conceptual place value.

Due to the intensity and depth of this professional development, MRSp1 is recommended for educators who have at least three years of teaching experience. Intervention teachers, instructional coaches or leaders who are supporting mathematics instruction would benefit from this professional development. MRSp1 is the pathway to developing local interventionists, leadership and sustainability.

Graduate credits are available for all Math Recovery courses.

Target Audience: Intervention teachers, teachers who work with students who are not meeting grade-level standards, or instructional coaches or leaders who are supporting mathematics instruction

Course Commitment:
- 213 hours participant time
  - Synchronous: 67 hours
  - Asynchronous: 36 hours
  - Assessments & intervention teaching with students: 110 hours (job-embedded)
    - Recommended grade levels K-2
    - Includes one-on-one intervention instruction 30 min per day, per student. At least 1 complete intervention cycle with a 1st grade student is required for certification.
  - 30 minutes per day for reflection, planning and preparation

Certification Requirements for Math Recovery Specialist, Part 1
- Documentation of 100 Math Recovery teaching hours
- Proficiency with Math Recovery teaching
- Sharing video in video shares at least four times
- Participating in one-on-one coaching
- Successful completion of an assessment portfolio project
- Successful culminating project illustrating student and participant learning
Add+VantageMR® Champion Course

AVMR Champion is a year-long course which prepares participants to deliver both AVMR Course 1 and Course 2 in-district and provide on-going support for implementation.

Participants learn how to deliver and support AVMR Course 1 and Course 2. Champions focus on how educators can apply Math Recovery principles to classroom mathematics instruction.

Local Champions offer a school or district the added resource of just-in-time support and help to ensure a sustained implementation of AVMR.

Graduate credits are available for all Math Recovery courses.

Target Audience: Educators who would like to teach and certify other educators in AVMR Course 1 & Course 2 in their district

Prerequisites: AVMR Course 1, Course 2, and MRSp1 certification

Course Commitment:
- 61 hours of participant time
  - Synchronous: 35 hours
  - Asynchronous: 26 hours
- Virtual cohort meetings
- Deliver both AVMR Course 1 & Course 2
Outcomes

At the end of the four-year Math Tiered Academy collaboration the expected outcomes are the following:

(a) establish effective district and school level leadership teams including a local AVMR Champion

(b) develop and implement a multi-year, strategic mathematics plan

(c) organize and use diagnostic assessment data to inform decision making related to professional development activities, resource allocation, and coaching

(d) build multi-tiered systems of support utilizing research-based practices, approaches, and instructional tools

(e) create a consistent teacher knowledge base of elements of mathematics learning and principles of effective instruction

(f) develop local mathematics leaders to effectively support instructional practices leading to improved student outcomes
Additional Math Recovery Courses

Math Recovery offers additional professional development courses as part of the Math Tiered Academy which expand participant’s depth of knowledge.

Math Recovery® Specialist, Part 2

Math Recovery® Specialist, Part 2: Intervention and Specialist in Number for the Intermediate Grades includes the assessment and teaching topics of addition and subtraction to 100 and multiplication and division.

Target Audience:
Intervention teachers, teachers who work with students who are not meeting grade-level standards, or instructional coaches/leaders who are supporting mathematics instruction

Prerequisites: MRSp1

Commissions for MRSp2 include:

- 146 total participants hours
  - Synchronous: 56 hours
  - Asynchronous: 30 hours
  - Assessments & intervention teaching with students: 60 hours (job-embedded)
  - Recommended grades 3–5
- Participants also required to complete a course-end Culminating Project

Add+VantageMR® Fractions Champion

Add+VantageMR® Fractions Champion professional development prepares participants to deliver AVMR Fractions and provide on-going support.

Local Fractions Champions offer a school or district the added resource of just-in-time support and help to ensure a sustained implementation of AVMR Fractions.

Prerequisites: AVMR Fractions & Math Recovery® Specialist, Part 1

Course Commitment:

- 59 total participant hours
  - Synchronous: 33 hours
  - Asynchronous: 26 hours
- Additional virtual meetings & ongoing support

MR Leader for Math Recovery® Specialist, Part 1

This course is a year-long professional development experience that develops a depth of knowledge necessary to deliver and certify the course in-district, provide MRSp coaching and ongoing support, and refine and extend knowledge of Math Recovery content and pedagogy.

This course develops local leadership for effective district implementation of Math Recovery intervention and supports all other Math Recovery programs, including Add+VantageMR® Course 1 & 2.

Prerequisites: MRSp1

Course commitments:

- 60 total participant hours
  - Synchronous: 40 hours
  - Asynchronous: 20 hours