



ALN and AOE Virtual Conference 2024

November 19, December 3 and December 16

3:30-5:30 pm EST

*Inclusion and Differentiation in the Math Classroom
Grades PK-12*

When Tier 1 instruction is robust and inclusive, the need for additional interventions decreases significantly. In this workshop series, we will explore strategies to include all students in grade-level learning while providing opportunities for differentiation and accessing “right for me right now” learning opportunities as part of a balanced math block.

November 19, 2024

3:30-3:35 Welcome & Keynote introduction: Sandi and Ashley welcome to ALN!

3:35-4:30 Keynote Address: Karen Gartland, co-author of the Well Played series, will kick off the series of workshops with a focus on ways we can include all students in

important mathematics while providing opportunities for differentiation and access to "just right" learning. Gameplay is just one of the ways-but it's an important and engaging way! Emphasizing that all learners deserve to have fun and learn important concepts in math class. Games are not just for the kids who finish their work first. They serve a purpose - they can both highlight and elevate understanding of mathematical concepts.

4:35-5:30 Sessions:

1. Strengthening the Feedback Culture in a School System, Erin Oliver

Robust and inclusive tier 1 instruction happens when the feedback culture in a school system is strong. A strong feedback culture allows educators to engage in a rapid cycle of inquiry about their instructional decisions. Coaches and colleagues are seen as resources. Educators who have regular access to feedback will grow their craft and hone their decision-making skills. We want the best decision-makers in our classrooms. In this session we will explore five strategies to strengthen the feedback culture in a school. **While this presentation is applicable for any level educator, the intended audience is primarily coaches and leaders.**

2. Data Driven Decision Making, Dr. John Tapper

The All Learners Network (ALN) Evaluation Team is dedicated to identifying the strengths and areas to grow in the school district systems we are working with. In this session, Dr. Tapper will explore the key data to review, questions to ask and practices to uncover when evaluating your math instructional systems. By illuminating our current practices as an evaluation team when working in your schools, participants will walk away with questions to ponder as they evaluate math instruction in their schools.

December 3, 2024

3:30-4:25 Session 1:

1. Proactive Instructional Design using the UDL Framework, Ashley Marlow

The disparities we see in our education systems have a profound impact on students' opportunities and future success, especially in math. Every child deserves access to quality, affirming learning opportunities in math. Inclusion means every child is meaningfully engaged in grade-level math. Instead, we often see students pulled out of grade-level instruction to receive intervention. Teachers often don't have the tools and content knowledge to proactively design their math instruction so all kids ARE included in their main lesson. This workshop aims to provide educators with practical strategies using UDL to create inclusive and accessible math learning environments

for all students in grades PK-5.

2. Daily Number Sense Routines Built on Math Models, Lilly DePino

Routines, with their structure, pattern and predictability, are vital to early childhood classroom life. This workshop will focus on strategies for integrating math models such as five and ten frames and number paths into classroom temporal routines, morning meeting routines and transition routines. Playfully engaging with math models during routines creates frequent opportunities for making sense of common models for instruction prior to using these models for problem solving.

4:35-5:30 Session 2:

3. Ways to Make Closure Meaningful in your Math Block, Carly Epstein

In this presentation participants will explore closure within the ALN lesson structure. The purpose is to investigate what closure is and how to leverage the time to facilitate discourse, connections and inclusion for all students. Closure is a critical time in the math block that is often left off due to time constraint. Closure is also the time for educators to bring all students together to explore their models and strategies through connections, questions and collective meaning making. It is the time to reflect on experiences and look ahead to what comes next. Participants will gain 3 different perspectives for closure along with a variety of structures for which to facilitate ending a main lesson and math block.

4. More Than Tens and Ones: Supporting All Students' Place Value Understanding, Tara Trudo

There is so much more to place value than what we remember from our own school experiences. Come uncover the big ideas of place value and learn about supporting students' progression of place value concepts. We will also take a look at several high leverage routines that move place value understanding forward as well as share some favorite games related to this topic. You will walk away with a better understanding of place value as well as routines and games to use with your students tomorrow!

December 16, 2024

3:30-4:25 Session 1:

1. Enhancing Algebra Access through Inclusion and Differentiation in Middle School Classrooms, Jean Sequeira

Middle school mathematics teachers face the critical challenge of ensuring that all students have equitable access to algebraic concepts. This workshop aims to equip educators with effective strategies for implementing inclusive and differentiated instruction tailored to varied student needs. Participants will explore the significant role of visual aids and hands-on manipulatives in fostering a deeper understanding of algebraic principles. This workshop will provide practical demonstrations of manipulatives such as algebra tiles, number lines and graphing tools, enabling teachers to enhance their instructional practices.

2. Establishing Routines that Support Discourse & Productive Struggle, Elizabeth Kiely

Good math teaching practices happen when classroom systems are built to support learning for all students. These structures do not happen without intentional and thoughtful planning and implementation. Together, we will explore how to establish routines that promote rich discourse and productive struggle. *While this presentation is applicable for any level educator, the intended audience is primarily middle level teachers.

4:35-5:30 Session 2:

1. Strengthening Estimation Skills to Increase Conceptual Understanding, Josh Bunker

Too often tasks and lessons are limited in complexity because of the values chosen. When the focus is placed on mastering a set of steps, “unfriendly” numbers are frequently avoided. This causes problems to become predictable and stale. To increase interest and realism sometimes the numbers need to be messy. This is where true estimation skills are needed and can be used to enhance conceptual understanding and number sense through the middle grades.

2. Your students never learned long division...Try this!, Kathleen Legg

Long division remains an algorithm that eludes even our most dedicated student mathematicians. Why not let it go and use relational thinking along with mathematical properties to truly understand division of whole numbers, rational numbers and polynomials? Come on your own or with a team. Be ready to dive deep into relational thinking and try your hand in re-thinking division.

Note - you will do a lot of math and be encouraged to share your thinking. If you come in a group, you'll work with that group, and if you're on your own, I'll put you in a breakout room to collaborate.

Facilitator Bios

Erin Oliver: At ALN, Erin is passionate about disrupting a system of math instruction and support that currently doesn't serve the needs of all students. She believes that system-wide changes are possible. Erin works hard to elevate educator voices as the experts of this complex craft and the change-leaders in our mission. Before ALN, Erin has served many roles in education. She has taught kindergarten through eighth grade. She has served the system as a classroom teacher, as an interventionist, as an RTI coordinator, as an assistant principal, and as an instructional coach.

John Tapper: John was an elementary classroom teacher, math curriculum coordinator and math coach for over 20 years. His teaching experiences range from the two-room elementary school in Vermont where he began his career to his work at the Neighborhood School on the Lower East side of Manhattan. In the 1990s, he co-founded the nationally recognized Westminster Primary Program, an innovative non-graded public school in southern Vermont where children ages 6-10 learned together. John completed his PhD in Teaching and Learning at New York University focusing his research on teaching methods that support struggling math learners and the effects of poverty on mathematics learning. John has provided professional development on mathematics learning throughout the U.S., Eastern Europe, and Japan. He is currently a professor of elementary education at St. Michael's College where he prepares future teachers to teach mathematics. He is the author of *Solving for Why: Understanding, Assessing, and Teaching Students who Struggle with Mathematics, K-8*. He was one of the founders of the All Learners Project, an effort to make math accessible to students regardless of background or circumstance.

Tara Trudo: Tara is a full time facilitator for All Learners. She has 18 years of experience supporting students and teachers with math instruction. She has spent many years as a math specialist, a co-teacher, an interventionist and a coach. She is a 2010 graduate of the Vermont Mathematics Initiative Master's Program and a 2023 graduate of the Vermont Mathematics Initiative Post Graduate Program. Tara is passionate about bringing games into math classrooms and differentiating learning for all students.

Lilly DePino: Lilly is a full time facilitator for the All Learners Network. She is a former kindergarten teacher, interventionist, and math coach. Lilly is always on the lookout for engaging and playful ways to support the number sense development of elementary learners.

Carly Epstein: Carly Epstein is the Director of Facilitators and Senior Facilitator for All Learners. She has 17 years of classroom teaching experience in second grade. She

also has 9 years experience as a Professional Learning Community leader and facilitator, which includes work developing MTSS systems at the grade and school level. She has a masters degree in Curriculum and Instruction. Carly is passionate that kids should do the work. She believes that all students should be engaging in discourse, exploring with models, and building flexible strategies through dynamic and equitable math learning experiences.

Ashley Marlow: Ashley Marlow, MEd, is an elementary math coach, a consultant, and the director of operations for All Learners Network. She has 13 years in teaching and coaching and is passionate about supporting teachers in creating equitable learning opportunities in math. Ashley plans professional learning opportunities focusing on instructional routines in mathematics that support belonging, engagement, and access to rigorous grade-level content for all students.

Jean Sequeira: Jean Sequeira is a full time facilitator for the All Learners Network. She has been immersed in middle level mathematics for over three decades in Vermont as a 7th and 8th grade classroom teacher, k-8 math coach/specialist and grades 5-8 math interventionist. She is passionate that all students can build a conceptual understanding of mathematics as they progress from additive and multiplicative reasoning to proportional and algebraic reasoning. Jean is a 2009 graduate of Vermont Mathematics Initiative (VMI) and a national facilitator for the On-Going Assessment Project (OGAP) in multiplicative, fractional and proportional reasoning. She is a co-author of A Focus on Ratios and Proportions Bringing Mathematics Education Research into the Classroom.

Elizabeth Kielty: Elizabeth Kielty is a full-time facilitator for the All Learners Network. She has 12 years of classroom teaching experience, having taught middle and high school in Florida and Vermont. She is a graduate of the Vermont Mathematics Initiative (VMI) Master's Program and the VMI Post Graduate Program. Elizabeth is an instructor for the VMI and has facilitated professional development related to problem solving for Exemplars, Inc. Elizabeth is passionate about creating a classroom culture where all students are heard, valued, and supported in the pursuit of mathematics learning.

Josh Bunker: Josh is a member of the ALN Facilitator/Evaluation Team. He came to work for ALN after spending 24 years working in the public school system in Vermont. His time in school was split between being a middle school math teacher, primary teacher, and a building based Math Coach/Interventionist. Josh is also a 2008 graduate from the VMI program. He has also been an instructor and mentor for the VMI program since 2007.

Kathleen Legg: After graduating with an Economics degree from Harvard University, Kathleen fell into a career of teaching and has never looked back. Kathleen earned her Masters degree in Curriculum and Instruction in Secondary Mathematics from University of Colorado, Boulder. She's taught middle school math since '93 in Colorado, Vermont, and internationally in London and the Hague. She also teaches science and in 2014 was recognized as VASE Science Teacher of the year. Kathleen recently moved from the classroom into a coaching role for Champlain Valley School District. This experience renewed her passion for math education and the importance of making mathematics meaningful and accessible for all learners, especially at the middle level. She also teaches Math Methods at Champlain College and is a trained facilitator for OGAP Proportional Reasoning. Kathleen is also a part time facilitator for All Learners Network.