Going to Scale
Implementing Evidence-Based Personalized Learning for Math Intervention

Content provided by dreambox LEARNING
Debbie Thompson has 30 years of experience in education and is currently a Mathematics Curriculum Specialist for the Wichita Public Schools. She completed her bachelor’s and master’s degrees at Wichita State University and is currently finishing her doctorate at the University of Kansas. Debbie has taught at the elementary and college levels, and has provided professional development to educators at all levels, as well as, parents and community members. Collaborative work with her team members has been published on Achieve the Core and their fact strategies books are being used in several districts across the state. Debbie has presented at several NCTM, MTSS, and KATM annual conferences.
Going to Scale:
Implementing Evidence-Based Personalized Learning for Math Intervention

April 11, 2017
Topics for this session:

• Setting goals and identifying criteria to evaluate programs for efficacy, standards-alignment and student growth
• How to build teacher capacity using data-informed instruction and intentional organizational support structures
• Scaling beyond intervention; increasing district-wide adoption and usage of personalized learning programs
Enrollment - 50,561 students

Richly diverse student body

- Caucasian - 33%
- Hispanic - 34%
- African-American - 19%
- Multi-Racial - 8%
- Asian - 4%
- Native American - 1%

Students of many abilities

- Receiving special education services - 7,036
- Receiving gifted education services - 771

Overcoming obstacles

- Students from homes of poverty - 75%
Wichita Public Schools is the largest school district in Kansas.

Our students come from 96 countries and more than 119 languages are spoken in the homes of district students.
Flowchart outlining steps in the process for adopting an intervention program.
Math Curriculum Work Group

- Curriculum Specialists
- Classroom Teachers
- Special Education Teachers
- Math Intervention Teachers
- Principals
- Assistant Principals
- ESOL Teachers
Investigate Research

IES > WWC What Works Clearinghouse

WHAT WORKS IN MATH

edreports.org

MATH REPORTS

NCTM National Council of Teachers of Mathematics

Individual research studies
Top section – program stopped with any “no” answer.

Non-negotiables – programs needed a 2 or 3 score.
Pilot Implementation Cycles

Cycle #1 – 4/5 weeks

Cycle #2 – 4/5 weeks

Cycle #3 – 4/5 weeks
Feedback on Pilots

Cycle #1 – 4/5 weeks

Cycle #2 – 4/5 weeks

Cycle #3 – 4/5 weeks

Program Feedback #1

Program Feedback #2
Feedback on Pilots

Program Implementation Feedback Form

<table>
<thead>
<tr>
<th>Overall rating:</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
</table>

Program Name: _______________________

Team members: _______________________

**Strengths:**

**Strengths through the lens of:**

Grade level team approach:

Classroom teacher only approach:

Intervention teacher approach:
End of the Pilot Cycles

Comparison Evaluation

Look at the feedback from your previous evaluations. How would you compare the programs you have used? Place the programs in order from most desired to least desired. Support your sequence with details of the strengths/weaknesses of the program’s application for both student learning and teachers’ use in our current 30-minute math intervention structure.

Grade level:
Circle all that describes your class:
title magnet ESOL SPED other:

#1 choice -
Why?

#2 choice -
Why?

Teachers compared and contrasted the programs they piloted in order to rank them.
Top Choice in Our District

Teacher Comments:

“...highly motivational...”

“...hefty, scaffolded instruction...targeted to standards...”

“...helpful tech support...”

“...visuals gave deep understanding...”

“...conceptual understanding and Math Practices are phenomenal...”

“...adaptable to do on the SMARTBoard with a whole/small group...”

“...enrichment as well as intervention...”
Most elementary schools have an instructional coach or share with another building.

Middle schools have an instructional coach.

Every elementary school has 30 minutes of Tier 2 Intervention designated in their schools for reading and for math.

Middle schools and high schools have Tier 2 courses.
# Intervention Structuring Considerations

The options noted in the table need to have thoughtful processing regarding the capacity within the building. Capacity (space and location of rooms, the number of instructional staff consistently available and resources such as, manipulatives, supplies, computers, etc.) will need to be addressed to determine best structure.

<table>
<thead>
<tr>
<th>Grade-level structure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>This structure works well if there is good communication among all teachers, close proximity of instructional spaces, and transitions are well implemented.</strong></td>
</tr>
<tr>
<td><strong>Only grade level teachers:</strong></td>
</tr>
<tr>
<td>• One teacher instructs the on-grade-level and above students. The other teachers instruct the ECAM stages focusing on the specific gaps and needs of the students.</td>
</tr>
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<td>• On-grade-level and above students are distributed among the teachers, and engage in activities which don’t need teacher assistance (such as, problem solving, games/activities about known content, projects). Each teacher is then responsible for a specific stage or two with the remaining students.</td>
</tr>
<tr>
<td><strong>Grade level teachers and extra support:</strong></td>
</tr>
<tr>
<td>• One instructor teaches the on-grade-level and above students. The most qualified teachers instruct the ECAM stages focusing on the specific gaps and needs of the students. (i.e. paras would be responsible for the on-grade-level and above group)</td>
</tr>
<tr>
<td>• On-grade-level and above students are distributed among the teachers, and engage in activities which don’t need teacher assistance (such as, problem solving, games/activities about known content, projects). Each teacher is then responsible for a specific stage or two with the remaining student groups.</td>
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<th>Grade-level structure</th>
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<tr>
<td><strong>This structure works well when transitioning takes too much time, schedules for intervention do not match, or communication among team members are poor.</strong></td>
</tr>
<tr>
<td><strong>Only grade level teacher:</strong></td>
</tr>
<tr>
<td>• Maximum of three groups seems to be the most manageable for one teacher. On-grade-level and above students are engaged in activities which don’t need teacher assistance (such as, problem solving, games/activities about known content, projects). Remaining students are divided into two groups paying attention to the ongoing activity.</td>
</tr>
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<td>• On-grade-level and above students are distributed among the teachers, and engage in activities which don’t need teacher assistance (such as, problem solving, games/activities about known content, projects). Each teacher is then responsible for a specific stage or two with the remaining student groups.</td>
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Using the Resource Beyond Intervention

We are just beginning to explore how to use this beyond just our intervention block of time.
DreamBox Learning® K–8 Math
Available in English & Spanish
What We Do: Reimagine K-8 Math for Learners and Learning Guardians

- Eliminate the wall between Instruction & Assessment
- Build Conceptual Understanding & Fluency
- Incorporate gaming protocols in 3 age-appropriate motivational frameworks to build confidence
- Use dynamic, continuous, and real-time data to create personalized learning paths
- Empower students with ownership of their own learning and teachers with powerful instructional data
- Create deeper home-to-school connections to facilitate more meaningful interactions for educators and families
Efficacy: Independent Validation from Harvard and SRI, and 40+ Industry Awards

Source: Results for Grades 3–5 were reported by the Center for Education Policy Research (CEPR) at Harvard University, 2010. Results for Grades K–1 were reported from SRI, 2010. Improvement was measured using NWEA MAP assessments. Both reports are available at www.dreambox.com/research. "Harvard analysis suggests the observed average improvement of students using DreamBox is a linear relationship and that achievement gains continue to rise at the same rate as DreamBox usage increases. But the dataset did not include a significant sample size around this level of use specificity."

Learn more and see how it works: www.DreamBox.com/request-a-demo
DreamBox Lessons & Virtual Manipulatives

Intelligently adapt & individualize to:
• Students’ own intuitive strategies
• Kinds of mistakes
• Efficiency of strategy
• Scaffolding needed
• Response time

2,000+ Lessons available in English and Spanish!
Equip Teachers as Activators of Learning with Actionable Student Data

Dashboards for teachers, administrators, and families

- Offer insight into depth of learning so educators can see when to accelerate learning, offer remediation, and adjust their classroom instruction.

- Enable educators monitor progress, identify learning gaps, and deliver differentiated assignments for every student.

- Create deeper home-to-school connections with the Family Insight Dashboard.
Nurture Teachers’ Confidence as Math Practicioners

Through comprehensive and ongoing professional development, we walk side by side with educators to align professional learning to their instructional goals, deepen math understanding, and refine instructional practice.

Customized professional learning that goes beyond product training to:

- Support successful blended learning implementations
- Increase efficacy of instructional practice
- Expand math teaching “toolkits” by helping educators to learn multiple teaching strategies.

Educators rate our professional development 4.6 out of 5 stars!
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Education Week Webinar