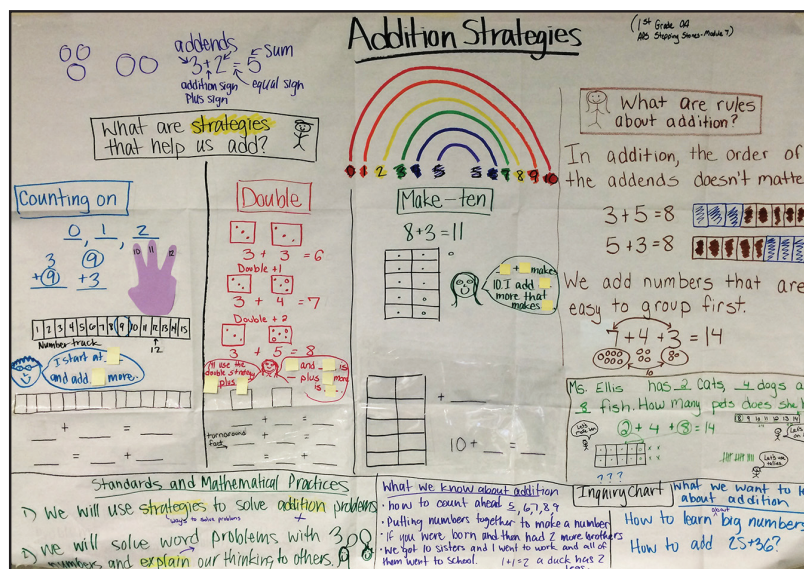


Supporting Implementation of a New Mathematics Adoption with AIM4S³™

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Promising practices...

As districts adopt new Common Core State Standards (CCSS) mathematics programs, they face a challenge in providing teachers the professional development necessary to successfully implement the materials. Many teachers are finding that *Achievement Inspired Mathematics for Scaffolding Student Success* (AIM4S³) provides a framework to support implementation of the new adoption while providing the security of a familiar structure that supports big-picture planning, as well as routines and strategies to meet the needs of language learners. AIM4S³ is a flexible framework that can be adapted to support a wide range of programs, giving teachers the knowledge and confidence to make informed professional decisions to support student learning.



This first grade Compendium on addition strategies addresses *Stepping Stones* Module 7 and reinforces Modules 2 and 5.

Like many districts across the country, Albuquerque Public Schools (APS) recently adopted a new mathematics program to support implementation of the CCSSM. Some teachers were excited to have *ORIGO Stepping Stones* with a scope and sequence, lessons, assessments, etc. Others missed the APS Units of Study that organized the CCSSM into units for the year. The Units of Study included essential questions and some performance tasks, but gave teachers flexibility in the resources they used, since the district didn't have CCSSM-specific materials.

As is often the reality of new adoptions, teachers received access to the materials the first week of school with a half-day training. A few days later they were starting module one. Survival mode kicked in and teachers were moving lesson by lesson through the program. Many teachers said they felt overwhelmed trying to prepare materials for the next couple of lessons while shifting their instruction to match the program's organization.

Teachers requested professional development on using AIM4S³ to support the implementation of the newly adopted program and to help meet the needs of their language learners. In response, Lynne Rosen at Language and Cultural Equity in APS decided to provide follow-up support for teachers already trained in AIM4S³. She asked specifically for a focus on planning and the implementation of *Stepping Stones*.

First, a survey was sent to teachers to gauge their confidence and success in implementing *Stepping Stones* with AIM4S³ during the first part of the year. Just over half of the teachers responded that they were implementing Focus and Motivation and the Compendium with students. A handful of these teachers

had also done Closure and Goal Setting activities with students. Others had not implemented the framework yet because they had been so focused on navigating *Stepping Stones*. In their survey responses, teachers repeatedly asked for support in organizing and planning their Compendiums. A Compendium is a large resource chart created with students that provides the foundational "big picture" for the unit. The year before, the APS Units of Study had focused on one specific domain, while each *Stepping Stones* module addresses two or three domains. Teachers found it challenging to identify a specific focus for planning.

In addition to the survey information, our trainer group had observed that many teachers did not have a general understanding of the program, including the organization and presentation of concepts across the year as well as the level of mastery expected from students at the end of each module. They were working lesson by lesson without a sense of how the entire program fit together.

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Addressing this reality became a focus of our trainer study group. How could we support teachers in meeting the needs of their students, implementing the CCSSM with *Stepping Stones*, and lowering their stress levels? Two days of mid-year professional development were designed for teachers already trained in AIM4S³. The goal was for teachers to leave more confident about implementation of the program and better prepared to make professional decisions using AIM4S³ and *Stepping Stones* to meet the needs of their students.

To help teachers broaden their focus, we looked at one concept in a single grade level and how it was addressed over the twelve modules. For example, the early childhood teachers looked at comparing numbers, targeting the first grade standard *Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$ (1NBT3)*. Teachers identified which lessons addressed this standard and if the lesson was a review from kindergarten, was building a conceptual understanding of the standard, was application, or was a preview of the expectation for second grade. This discussion provided a common language and lens for looking at how standards were developed throughout the year and across grade levels.

Next, to give teachers a sense of the program as a whole, teachers looked at their grade level and how the CCSSM domains are addressed across modules by identifying the domain(s) addressed in each lesson. While *Stepping Stones* provides a tool with this information, teacher feedback has been that the process and discussions give them a much deeper understanding of the domains, the standards within those domains, and how they are addressed in the program. This program tool is a more helpful reference after teachers have been through this process. For teachers, just like for students, constructing meaning is essential to holding that information and knowing how to apply it.

Having looked at the program as a whole, teachers were ready to plan their next module. For many, the key question was how to plan the Compendium incorporating the sequence of the

Supporting the Implementation of a New CCSSM Adoption

Regardless of the mathematics program your district adopts, there are steps you can take, even with limited time, to help teachers through the initial year of implementation, minimize their stress levels, and give students a more coherent experience.

Exploring New Adoption Materials

Give teachers an opportunity to explore materials and to see how the program is organized. This is often the initial training that teachers receive with the materials. There is never enough time for this, but it is a start.

Getting a Big Picture Understanding

Provide teachers a facilitated opportunity—with colleagues—to look closely at the program's organization and rationale, learn when different concepts are addressed over the year, and understand how the units build on each other. Flipping through materials with a cursory glance at the overview and pacing guide is not enough. Teachers need to develop their own pacing guide for instructional decisions based on the realities of the school calendar. This is important even when a district pacing guide is in place; teachers need to build a big picture of their mathematics instruction for the year.

Supporting Unit Planning

With a new program, one of the best supports for teachers is a regular, structured time to meet and plan for the next unit or module they'll be implementing. As a grade level, teachers need to look closely at the standards addressed and identify how they are going to assess student learning throughout the unit. They need to decide a time frame for teaching the unit, given the year's pacing guide. Then teachers are ready to look more closely at the unit to see how lessons are connected, to identify the scaffolds students will need to help address gaps in skills, and to plan for students' language needs. A skeletal plan for teaching the unit will be a huge support for teachers as they plan specific lessons on their own.

This process should be done with each unit or module throughout the year. Spending even 45 minutes together looking at the unit as a whole will save time as teachers move through the unit and will lead to better informed instruction and higher student achievement.

While teachers would ideally receive more support with a new CCSSM adoption than what is outlined above, for many schools this support plan would at least ensure that big picture discussions *and* collaborative unit planning both take place.

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causan confusión. En realidad, es aquí y de esta manera que *aceleramos el aprendizaje* y la comodidad que tienen nuestros jóvenes con la existencia dual que viven y que sigue evolucionando según sus experiencias fuera y dentro del salón.

Gracias a la instrucción contextualizada tenemos un sistema que nos ayuda recordar que es supremamente **esencial e incondicional** enfocar en ambos **los requisitos lingüísticos que nos exige el contenido y las necesidades lingüísticas de nuestros alumnos**.

El trabajar en una situación donde usamos el lenguaje para compartir información – que es nuestra realidad como maestros y seres humanos – nos requiere aceptar la relación indivisible que siempre ha existido entre el lenguaje y contenido, y

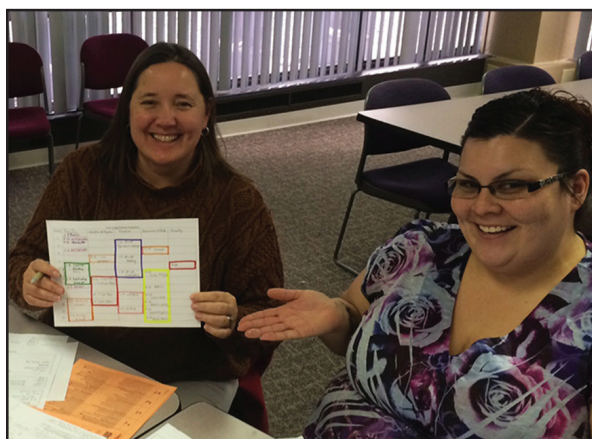
el lenguaje y pensamiento. Es por esta razón que al maestro de la secundaria, ahora en adelante, **queremos darle el permiso de dejar de enseñar únicamente el contenido**, para así evitar reaccionar después con frustración o indiferencia a la falta de comprensión que muestra el estudiante. Como ya hemos dicho, los componentes de la instrucción contextualizada no son conceptos nuevos sino algo que, desafortunadamente, damos por hecho y sencillamente los catalogamos como las mejores prácticas de la enseñanza. Al contrario, debemos de pensar en **cuáles de los componentes hacemos bien y cuáles evitamos intencionalmente por falta de confianza y/o experiencia**. Es algo que nos debe de impactar desde la planificación de clases, hasta la instrucción y la evaluación.

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Stepping Stones materials. A lively discussion ensued about the difference between a Compendium and an anchor chart. A Compendium, by definition, is a “body of knowledge” and is meant to ground students in the larger concepts of mathematics and support them in understanding connections between concepts—rather than skills or concepts in isolation. In the AIM4S³ framework, an anchor chart focuses on a specific skill or concept.

The teachers discussed different approaches to planning Compendiums. One approach focused on building a Compendium based on the *Stepping Stones* module and containing key content specific to that module. Some teachers found this felt more manageable for planning and for presentation with students.

Other teachers felt this wasn’t working for them. The resulting Compendium seemed to focus on a number of different concepts and didn’t represent a big idea. This group looked at the morning’s work identifying targeted domains in each module and then across modules to see how they could build Compendiums targeting specific domains. (See photo above.)



This fifth grade team grouped lessons across modules in a year-long plan, targeting specific domains to support planning Compendiums.

Another group suggested building a Compendium that targeted the big ideas addressed in the module and then doing an anchor chart targeting the last lessons, which often have a different focus. To them, this resulted in a Compendium that was clearer and less fragmented. (See example on page 8.)

For teachers, flexibility is key. There is no simple answer that works for everyone or every

grade level, but there are multiple ways to organize the content so it supports students and teachers with their mathematical thinking. With these options in mind, teachers moved into module planning—identifying essential questions, assessments, and the language functions and structures students would need. They then planned their Compendium and Focus and Motivation activities. With this structure, teachers planned for the module as a whole, before honing in on sheltering and scaffolding specific lessons.

Participating in these activities visibly lowered teachers’ stress levels regarding implementation of *Stepping Stones* with AIM4S³, giving them a sense of ownership of their year and more control over their planning. Teachers shifted from a lesson-to-lesson focus to a bigger picture plan of where they were going and the road map to get there.

