Continuous Feedback: Elevating Instruction and Empowering Students as Learners Introducing the Fifth AIM4S^{3™} Key Instructional Principle

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The Achievement Inspired Mathematics for Scaffolding Student Success (AIM4S^{3™}) framework supports teachers in meeting the needs of language learners and other students who struggle with the academic language and conceptual understandings of mathematics. AIM4S^{3™} is designed to be used

What does it look like in the classroom?

As a matter of routine, teachers need to use strategies that elicit students' feedback on their understanding of the concepts being taught and their ability to monitor their learning and the type of support they need. A question for teacher reflection is, "How am I

K-12 and incorporates the Common Core State Standards for Mathematics (CCSSM) and the current resources and materials being used by teachers. There were originally four Key Instructional Principles (KIP) that provided the pedagogical foundation for the framework:

- Teacher Mechanics and Delivery,
- Student Output,
- Positive Classroom Culture, and
- Sheltering and Scaffolding.

As the framework has evolved, Continuous Feedback has been added as an additional Key Instructional Principle. Here

we have a brief overview of this principle and how its use informs this framework, elevates our instruction, and empowers our students as learners.

So what is Continuous Feedback?

Continuous Feedback is a timely, ongoing process which provides students with accurate and relevant feedback on their progress and informs teachers as to the effectiveness of their instruction. Whether it's homework, the day's lesson, peer tasks, exit slips, or a formal assessment, this process is reciprocal between teacher and student. Intentional, purposeful Continuous Feedback requires structures and strategies to give and get feedback from students, as well as a flexible stance toward day-to-day lesson implementation that takes into consideration both the planned unit and students' evolving needs—as identified through ongoing student feedback.



As part of the PDSA cycle, students share ideas about how the teacher can support their learning.

gathering input from students on whether they understand the content or not?"

Structures that support this process provide opportunities for students to reflect on what they are learning and for teachers to model language and expectations that help students more accurately represent their progress. One simple example is asking students to give a non-verbal response to a question-a thumbs up if they understand or a thumb sideways if they have questions. Students can often suggest these structures. Taking the time to elicit

and use the students' input fosters a strong learning community in which learners and the process of learning are valued.

Other structures can be more formal. Intermittent exit slips can quickly tell teachers if students are making progress toward targeted standards. They give pointin-time information and suggest next steps for student intervention or extension. These exit slips not only inform teachers about students' learning; students should also understand how this feedback can inform their own learning. Marzano's reviews of the research have found that formative assessment may be "one of the more powerful weapons in a teacher's arsenal" (2007, p. 12).

A goal setting process such as the Plan-Do-Study-Act (PDSA) (Shipley, 2007) is a powerful continuous

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feedback tool. There can be long-term goal setting for a unit, but there can also be lesson-level goal setting. Lesson-level goal setting might be procedural (e.g., what procedures are needed to get through a mathematics lesson without losing focus and being derailed by interruptions). It can have a behavioral focus (e.g., the class will return homework completed to the best of their own abilities to be prepared for the next day's lesson) or a content focus (e.g., we will draw models to find the sum of fractions with unlike denominators). These lesson-level PDSA's reinforce for students that their voices and feedback are important in the classroom, as well as that their daily actions and attentiveness impact their learning.

Guided mathematics groups are another more formal strategy that yields great opportunities for teaching, learning, and reciprocal feedback. During guided instruction, teachers can address the very specific needs of the students in the group, including giving students an opportunity to share what questions they have and what type of support would be most helpful. For example, a teacher could ask, "What would help you the most as we review fractions-for me to draw and explain it, to use fraction bars...?" And a student might say, "Can you draw one like the one you did on the board yesterday?" or, "Can I try a problem and you help me if I get stuck?" Asking students questions about their learning can maximize instructional time and teach students to monitor what works best for them.



Guided math groups provide regular opportunities for differentiated instruction and reciprocal feedback between teacher and students.

What are the AIM4S^{3™} Key Instructional Principles?

A *positive classroom culture* that is built on mutual respect and supports risk taking and student ownership of learning surrounds all other elements of instruction. Strong sheltering and scaffolding practices are used to ensure all students have access to the content and language of instruction, and these supports are removed as students no longer need them. Considering teacher mechanics and delivery acknowledges the importance of careful planning and a deep knowledge of both the curriculum and effective instructional strategies on the part of the teacher. A focus on student output highlights the critical need for students to have multiple and varied opportunities to process information orally with peers, as well as in writing, and to develop language skills, higher-order thinking skills, and content knowledge. Students must be active, vocal learners in the classroom. Lastly, providing continuous feedback in a timely, ongoing manner ensures that students have accurate and relevant information on their progress and allows teachers to assess the effectiveness of their own instruction. Exit slips, homework, collaborative tasks, and formal assessments, as well as honest discussion and feedback during action planning and classroom meetings, are all opportunities to inform instruction and improve student outcomes.

Together, the Key Instructional Principles create a positive and productive context for implementing the four component areas—Focus and Motivation, the Compendium, Unit Lessons, and Closure and Goal Setting. When these are all in place, teachers and students see the strongest gains in student achievement.

Flexibility plays a significant role in making proficient use of this Key Instructional Principle. Starting with a well-designed unit and acquiring the depth of conceptual understanding necessary to deliver the instruction creates a foundation for the teacher that allows for flexibility. Too often, educators move through a program or unit day-by-day with little understanding of the complexities of the concepts they are teaching or how the ideas connect to previous or upcoming lessons. Being flexible in the delivery of instruction means knowing the content well and being able to continually adjust instruction as needed across a unit, a week, or even a day's lesson—never losing sight of the desired student outcomes and how to help students progress toward them.

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DLeNM Continues with Kellogg Bright Spots Initiative (BSI) by David Rogers, DLeNM

With funding from the W. K. Kellogg Foundation, Dual Language Education of New Mexico is engaging school communities in a 3-year initiative to strengthen and spotlight dual language education in New Mexico. The purpose of the Bright Spots Initiative is to demonstrate the power of multilingual enrichment education by developing New Mexico's cultural and linguistic capital, narrowing the academic achievement gap between native English speakers and native speakers of languages other than English (i.e., Navajo, Spanish), and preparing students to fully participate in their local and global communities.

With community, business, and educational leaders, DLeNM utilizes New Mexico's multilingualism and multiculturalism as levers to achieve and ensure educational equity and excellence for all students. Participating school communities include the following: Coronado and Reginald Chávez Elementary Schools, Truman Middle School, and Albuquerque High School from Albuquerque; El Camino Real Academy from Santa Fe; and Dream Diné Charter School from New Mexico's Four Corners area.

On August 28, BSI schools gathered for a day-long planning retreat. Inspired by a morning of visiting classrooms and observing students and teachers at work through the lens of DLeNM's VISITAS protocol, instructional leaders finalized their instructional support plan for the new school year. Each plan includes local and regional resources provided by DLeNM and its partners—WIDA, Literacy Squared, and the NM Public Education Department.



-continued from page 3-Why is Continuous Feedback important?

Providing Continuous Feedback yields significant outcomes and habits. Students have greater awareness of how they are doing throughout the unit—not just at the end when it is too late to do much about improving. They are also better able to monitor and communicate their own understanding of the content. Teachers have a heightened sense of how their students are doing over the course of the unit, and critical adjustments can be made in a timely fashion to efficiently support student learning. With time and practice, formative and summative assessments, as well as quick teachable moments, are intentionally and frequently used to provide relevant support for students' success.

This excerpt was first published in Achievement Inspired Mathematics for Scaffolding Student Success (AIM4S3[™])— An instructional framework for language and content learning (2nd ed.), Fuente Press, 2014.

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AIM4S^{3™} in Action

The AIM4S3[™] 3+3 training model, which is grounded in the CCSSM, includes a threeday initial training with an overview of the model, a classroom demonstration, and an opportunity for teachers to plan. This is followed by a minimum of three days of follow up to support teachers in using the framework with students. To learn more, please visit *www.aim4scubed.dlenm.org* or contact Lisa Meyer, *lisa@dlenm.org*.