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Implementing *Guided* **MATH**

Tools for
Educational
Leaders

Laney Sammons

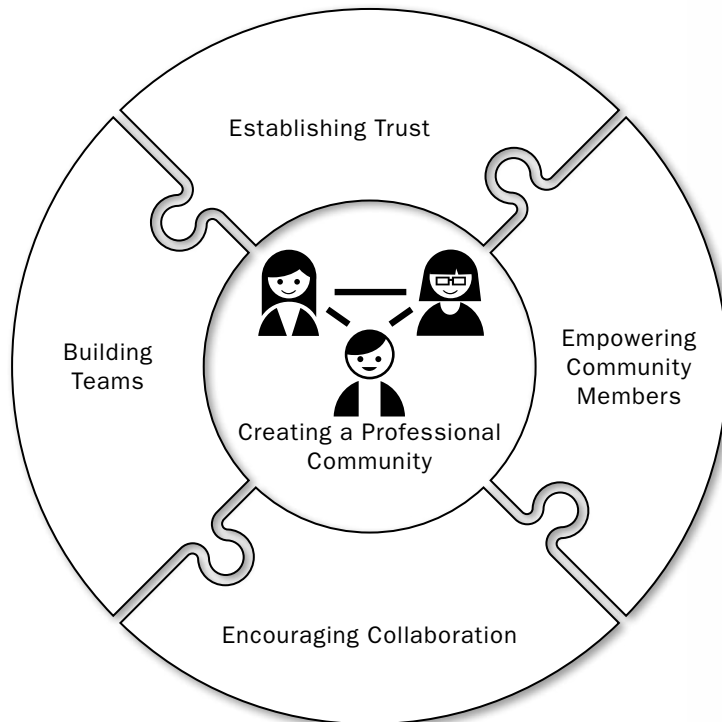
Foreword by
Mary Esther Reynosa



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Figure 2.1 Creating a Mathematics Professional Community



Establishing Trust

Imperative in the establishment of professional communities in schools is nurturing trust among community members—not only between administrative staff and teachers, but also between teachers. For much too long, math teachers worked on their own—never venturing into the classrooms of others, planning independently, and yet doing their best to teach their young learners in their own ways. Some teachers have even been territorial about their classrooms—reluctant to have others come in to observe, reluctant to share their successes or struggles with their peers. These teachers may engage in friendly chitchat with other teachers during breaks or after school, but are unwilling to engage in rich and constructive professional discussions. In that climate, professional communities focused on mathematics education initiatives fail to thrive.

This type of behavior often stems from a basic lack of trust and can be remedied. Within any school, the principal is “the key to building a trusting environment” (Short and Greer 2002, 63). For a district, the key may be the superintendent or other district personnel. How mathematics leaders in a supervisory role interact with those they supervise determines the level of trust between community members. Fullan advises leaders to “...name trust as a value and norm that you will embrace and develop in the organization; you model it in your day-to-day actions; and you monitor it in your own and others’ behavior” (2014, 130).

The issue of trust goes beyond just integrity and fairness. It also involves the issue of competence (Fullan 2014). For trust to exist, members of the mathematics education community must not only believe that they will be treated fairly as they implement new instructional strategies like Guided Math, but also that other members are capable of carrying out duties that support the implementation. Teachers may *like* leaders, but still not *trust* them if they do not believe that they will carry out their responsibilities in a capable manner. A lack of trust within an educational team can torpedo change efforts.

Kirtman (2013, 71–73) describes a cycle for building trust with individuals and groups. Its five stages are implicit in many of the mathematics education leadership functions listed in Chapter 1.

- 1. Communication.** Trusting relationships are created when leaders clearly communicate their expectations to members of the education community with whom they are working.
- 2. Shared Understanding.** This is an area where many leaders struggle. Simply communicating expectations to the community is not sufficient. Its members must also truly understand those expectations. Since members interpret the expectations shared by leaders in light of their own experiences, their interpretations are likely to vary considerably. While it is tempting to assume shared understanding exists once expectations have been communicated, effective leaders take time to ensure that these are not just clearly communicated, but also accurately understood by everyone. Many times, leaders hesitate to check for this in fear that disagreement among the group will impede change. Yet,

if underlying disagreement exists and is not addressed early on, it may well disrupt progress later in the initiative.

- 3. Predictability (Shared Expectations).** Most people find it easier to trust those who are predictable. In this stage of building trust, a clear sense of predictable behavior from leaders and team members emerges. Trust flourishes when predictions prove to be accurate; mistrust arises when the lack of shared understanding results in unpredictable behavior.
- 4. Commitment.** Relying on the trust established in the first three stages of this cycle, members of the group assume the responsibility for carrying out the tasks required for change. During this stage, trust continues to build. The group gains confidence that all of its members can be depended upon to fulfill their responsibilities.
- 5. Teamwork (Shared Efforts).** Effective teamwork is the final stage of the trust cycle. It consists of shared and coordinated efforts to attain the common goals that developed in a safe and trusting environment.

While the stages of this cycle are essential in building trust, there are other elements that should be considered as well in an educational setting. Too often, decisions regarding mathematics initiatives are made at the top and then passed down for implementation by classroom teachers, with little or no input from those most impacted. Short and Greer (2002) found teachers' involvement in and support of change efforts to be directly related to the degree to which they were genuinely trusted and empowered by the administration. Trust is engendered when teachers are truly valued as members of the education community. Leaders who trust others earn reciprocal trust from the members of their education community. Building trust within the mathematics education community creates a more fertile environment for implementing the Guided Math framework.



Chapter 4

Implementing the Guided Math Framework

This chapter examines models for the implementation of the Guided Math framework (Sammons 2010, 2013). When a needs analysis leads the professional community to focus on improving students' mathematics achievement, the adoption of the Guided Math framework may be considered as a process goal for an improvement plan. Some school districts, schools, or even individual teachers may choose to implement the framework without having gone through the process of creating an extensive improvement plan at all. The following implementation models may be used regardless of whether the processes described in the first three chapters have been carried out first.

In some districts and schools, the decision to implement Guided Math may be a result of mathematics leaders seeing the need for improvement in mathematics achievement and engaging in a search to find effective strategies for improving mathematics instruction. In other instances, the decision to implement the Guided Math framework may be spurred by individual teachers or schools that began using the framework and shared their successes with district mathematics leaders. Regardless of the initial motivation for implementation, there are several models for Guided Math implementation that leaders may choose to employ or to adapt and employ.

To Mandate or Not?

There are a number of things to be considered when schools or school districts are deciding whether to mandate the implementation of the Guided Math framework in all classrooms. Reeves (2009) cites research finding that “implementation that was moderate or occasional was no better than

implementation that was completely absent” (Kindle Location 533). To ensure deep implementation, mandates seem to be critical. Comprehensive professional development including ongoing job-embedded coaching coupled with explicit expectations that teachers use the framework for mathematics instruction are most likely to lead to the universal adoption of the Guided Math framework in classrooms.

Yet, many schools and districts choose to encourage and support implementation without mandating it for a variety of reasons.

- ✎ Teachers are usually more committed to an implementation initiative when they are empowered and feel they have a role in the decision-making process (Short and Greer 2002, 159). Even when teachers have been included in a decision to mandate Guided Math implementation, if given a choice, many would rather begin the implementation by learning about it and then adopting it at their own pace. With that method, educators tend to develop a greater sense of ownership in its implementation.
- ✎ Perhaps several different approaches to improving mathematics achievement are being considered. Teachers are given the option of choosing one of them to try. Later the school may examine the effectiveness of the various approaches and decide to mandate its implementation.
- ✎ Teachers who initially choose to implement Guided Math will later be asked to act as models for others.
- ✎ Teachers are accorded a deep respect for their professional knowledge and so diversity in teaching methods is encouraged. Thus, while results goals may be included in an improvement plan, teachers are given the responsibility to decide how they can best achieve them.

The drawbacks to optional implementation of Guided Math are the difficulties in providing adequate training for teachers who decide to use it and the confusion resulting from the creation of a patchwork quilt of instructional methods being implemented throughout a school or district.

Piloted Guided Math Classrooms

Some schools and school districts choose to begin implementation with pilot classrooms to model the use of Guided Math. Teachers may choose to be a part of the pilot program or may be asked to participate by school leaders. A school or district planning to mandate Guided Math implementation in a year or two might initiate pilot classrooms as a first step. Alternatively, this method might be a way of establishing a system of voluntary implementation. Beginning Guided Math implementation with pilot classrooms serves several purposes.

- ✎ The school or district has a test-run with implementation which allows the fine-tuning of the professional development and coaching support needed.
- ✎ The effectiveness of Guided Math as an instructional framework can be assessed before district-wide or school-wide implementation.
- ✎ When Guided Math is shown to enhance student achievement, the motivation of other teachers to implement it in their classrooms increases.
- ✎ Other teachers see Guided Math fully implemented in classrooms *in their own schools*—not just as described by a consultant or by the book. This helps convince teachers that the implementation really can be done successfully in their classrooms. Additionally, the pilot teachers are a valuable source of information for their colleagues, giving practical suggestions for making Guided Math work.
- ✎ Pilot classrooms function as labs as other teachers begin the implementation process. Teachers can observe first hand the classroom environments of numeracy established, the effective use of Math Warm-Ups, when to use whole-class instruction, how small-group lessons differ from whole-class lessons, and how to manage Math Workshop. The piloting teachers and their classrooms become an integral part of professional development.

Because the pilot classrooms will be used to assess the effectiveness of the framework and will serve as prototypes of Guided Math implementation, it is imperative that adequate professional development is provided. West and Cameron (2013) suggest the term “model classrooms” be avoided. The label “model” implies that these teachers are “modeling” best practices for

others rather than focusing on the fact that they are acting as a part of a collaborative inquiry into school improvement by the entire professional community.

Voluntary Classroom Implementation

Voluntary implementation of Guided Math differs significantly from the establishment of piloted Guided Math classrooms. With optional implementation, schools or districts are not promoting the implementation, but are *allowing* it. Professional development opportunities may or may not be provided for teachers. When training is provided, it is usually done by paying for interested teachers to attend Guided Math workshops sponsored by regional education services agencies or other organizations, either profit or nonprofit. If the school or district has math coaches, they may support these teachers as they set up the framework in their classrooms. If not, teachers either work together to support each other or else go it alone.

In many instances, teachers who want to try Guided Math will participate in a Professional Learning Community (PLC) composed of their colleagues. The idea for using Guided Math may have evolved from the work of a PLC or a PLC may be established specifically for the purpose of learning more about Guided Math. No matter where the idea came from, the value of the group study is substantial. In PLCs, teachers work together to not only engage in book studies, but also to examine data, plan lessons, observe each other's lessons, look at student work, reflect on their own experiences and their observations, and in general encourage each other as they implement Guided Math in their classrooms.

As with piloted classrooms, leaders may encourage teachers who are interested in implementing Guided Math to do so in order to introduce the framework to other educators. If this is their intention, the teachers who are using Guided Math may be asked to report on their experiences in grade level meetings, curriculum meetings, or other faculty meetings. If their experiences are positive and their students' mathematical achievement improves, others are likely to become interested in implementing Guided Math with their own students.

Leaders should encourage the Guided Math teachers to open the doors of their classrooms to other interested teachers who wish to see what Guided

Math looks like in a real classroom. Only with leadership support is this kind of authentic professional learning possible. Leaders must be willing to provide release time to allow teachers to make peer observations and to confer with one another. Although this may be an example of incremental change, it can be better than no change at all in that it stimulates interest in and enthusiasm for mathematics instruction throughout the professional community.

District-Wide Mandates

Whenever school districts mandate the implementation of the Guided Math framework, it is imperative that teachers, administrators, and other education leaders be provided adequate professional development for successful implementation. The small-group lessons and workshop format are a considerable change in instruction for many teachers—particularly teachers who have never used the Guided Reading structure for teaching literacy. It is important that administrators and other leaders understand both the demands of the framework and how it should look when implemented. Effective monitoring of its implementation is impossible unless these leaders can accurately assess the level of implementation by teachers and other staff members. To do that, adequate professional development for all members of the educational community is essential.

Starting with Professional Development

Using Consultants

Usually district Guided Math mandates are supported with considerably more resources than mandates by schools or individual teachers who implement voluntarily. Frequently, funding is available to bring in a consultant who provides an initial overview of the framework for teachers, coaches, and sometimes administrators. Teachers learn about each of the components and how to use them in the classroom to support conceptual understanding, computational fluency, problem-solving skills, and proficiency with mathematical practices. The training gives grade level teachers time to work together as they envision how the components can be implemented effectively in their own classrooms. Districts usually provide teachers with professional resources to support the implementation. (See Appendix C for a list of Guided Math resource materials.)

An overview consisting of one or two days is minimal training for teachers. Implementation is more successful when a consultant also goes into classrooms to demonstrate small-group lessons or other components of the framework as teachers observe and meet with the consultant later to debrief. These training opportunities allow teachers to actually see the components come alive in the classroom. The ensuing debrief sessions promote reflections and analysis as teachers discuss their observations, share questions, and hear the consultant's reflections on the lessons.

For districts that do not have math coaches to support mathematics instruction, some consultants now offer job-embedded coaching as part of their professional development services. Consultants work directly with teachers, planning lessons, observing teachers' lessons, and then offering immediate specific descriptive feedback.

As the implementation process continues, districts may opt to have consultants return to focus on a particular component of the Guided Math framework. Teachers who have gained proficiency in some areas are ready to move on to learn more about other components of Guided Math. For instance, after beginning with the implementation of small-group lessons and Math Workshop, teachers may decide they need more training to learn how to effectively conduct one-on-one Guided Math conferences with their students.

Using Mathematics or Instructional Coaches

When a district chooses to rely on their coaches to train teachers for Guided Math implementation, the district usually brings in a consultant to train the coaches. If that is not feasible, mathematics leaders may lead a book study of *Guided Math: A Framework of Mathematics Instruction* (Sammons 2010) with the district coaches. Coaches then provide the overview training and subsequent demonstration lessons for teachers based on what they learn from the book study.

Even when a consultant provides the overview training, if funding is unavailable for follow-up demonstration lessons by a consultant, in districts that are fortunate enough to have mathematics or instructional coaches, the coaches might provide demonstration lessons in classrooms with debrief sessions for teachers. The coaches then work with individual teachers to

plan lessons, observe instruction, and offer feedback. The support provided by district or school coaches can be crucial for successful implementation. Teachers who experience problems with the instructional framework have someone to whom they can turn for suggestions, encouragement, and resources.

Implementation Structures

When districts decide to mandate Guided Math implementation, they not only have to plan how to provide professional development, but they also have to decide on how to roll out the implementation. There are many ways this can be accomplished. Some districts establish a schedule for implementation that is adhered to by all schools in the system. Other districts opt to ask each school in the district to devise its own schedule for implementation. An example of each of these kinds of implementation initiatives is included below.

Sample District-Wide Implementation Plan

When the Chinook School Division in Saskatchewan, Canada decided to implement the Guided Math framework as part of the Math Momentum initiative, their curriculum leaders had already explored Guided Math with their math coaches. They asked me to work with them to help facilitate the implementation of Guided Math throughout the division. I provided training to their elementary and middle school teachers in early spring. In addition to the daylong overview presentation, I visited schools, both elementary and middle, for two days working directly with students, teaching small-group lessons as teachers observed. Each of the classroom lessons was followed with debrief sessions where teachers had an opportunity to share their observations and reflections and ask me questions. The lessons and debriefs were videotaped so they could be used in the future for ongoing professional development.

Following the initial training in March, teachers were encouraged to begin thinking about how the framework could be implemented in their classrooms. Many of them actually gave it a try immediately after the training. During the spring of that year, the math coaches provided some additional professional development on managing Math Workshop,

the component of the Guided Math framework in which students work independently and an area of great concern for teachers.

The expectation of the division was that their teachers, with the support of their math coaches, would begin a process of implementing Guided Math during the upcoming school year. In August of the implementation year, during pre-service professional development, I again worked with the Chinook teachers—spending half a day with teachers from grades kindergarten to 4, and half with teachers from grades 5–8. The agenda for this training included:

- ✎ A review of the Guided Math framework components,
- ✎ Routines and procedures for Math Workshop,
- ✎ Suggestions for math workstation tasks,
- ✎ Planning of differentiated small-group lessons,
- ✎ Addressing questions that had been submitted prior to the session by teachers, and
- ✎ Introducing a plan for preparing students for Guided Math during the first 15 days of school.

For the upcoming school year, the division also contracted with me to meet via online conferencing with the coaches during their monthly meetings to answer questions they had and to assist them as they continued to plan the Guided Math implementation.

Rather than roll out the implementation of the entire framework at once, the Chinook mathematics leaders decided to break the process down into four blocks. (See Figure 4.1 for the District-Wide Guided Math Implementation Plan [Coaching Overview].) During each block of time, the topics to be emphasized, the coaches' roles, and the teachers' roles varied. This implementation plan provided specific guidance for teachers and for coaches. Expectations were explicitly shared with everyone involved in the process. Coaches were coordinated in their support for teachers. They demonstrated new instructional strategies for groups of teachers, and then followed up with classroom observations so they could provide feedback to teachers as they tried the strategies that had been demonstrated earlier.

Figure 4.1 District-Wide Guided Math Implementation Plan (Coaching Overview)

	Topic	Coach's Role	Teacher's Role	Observations
Block 1 September/ October	Guided Math First 15 Days Numeracy Rich Environment Math Warm-Ups Assessments	Conversations and observations Demonstrate a grade level appropriate math workstation	Implement first 15 days Create Numeracy Rich Environment Use Math Warm-Ups Make an assessment plan	Assessment check-up Numeracy Rich Environment (anchor charts, word wall) Classroom set-up (small-group table, desk arrangement, manipulatives)
Block 2 November/ December	Management of Math Workshop Small-group lessons Grouping Workstations Student Accountability (journal, student folders, observation notes)	Demonstrations Transitions Student accountability Scaffolding for different abilities Debriefs Observations Reminders to review First 15 Days after holiday	Prepare for coach visit Group students Prepare workstations Observe coach's small-group lesson with debrief Teacher small-group lesson observed by coach with debrief	Assessment check-up Differentiated lesson plans Numeracy Rich Environments (anchor charts, word walls) Classroom set-up (small-group table, desk arrangement, manipulatives)
Block 3 March/ April	Whole-class Instruction with a focus on the use of Read Aloud to highlight math in literature	Provide needs assessment to teachers Demonstration of whole-class lesson (10–15 minutes) with debrief session Observation of teachers as they teach a whole-class lesson using a strategy of their choice	Observe Coach's whole-class lesson with debrief Choose a whole-class strategy for a lesson to be observed by Coach Teach whole-class lesson using a strategy of their choice to be observed by Coach with debrief	Assessment check-up Differentiated lesson plans Student accountability (journals, student folders, observation notes) Whole-class lesson
Block 4 May/ June	One-on-one Guided Math Conferences Scheduling Questions Teaching Points Record Keeping Follow-up	Review Guided Math Conferences Demonstrations of conferences in classrooms	Prepare for Coach's visit Confer with selected students Meet with Coach to reflect on conferring experiences	Assessment check-up Differentiated lesson plans Conferences (reflections/record keeping)

(Adapted from Chinook School Division, Saskatchewan, Canada)

The yearlong implementation plan was supplemented in November and March with four hour-long professional development sessions designed and carried out by the coaches. During these sessions, teachers were able to share their implementation experiences with each other. After the workshop, coaches provided follow-up demonstrations in the classrooms and continued observations with feedback for teachers.

The division found that providing only one year of support was not sufficient. Coaching support of Guided Math implementation continued the following year. Year Two of the implementation plan consisted of three blocks. Block 1 was similar to Block 1 of Year One—a review of what teachers need to do to begin use of the Guided Math framework with a new class. Block 2 provided intentional coaching for small-group instruction. Coaches taught demonstration lessons and then observed teachers as they conducted small-group lessons. Finally, Block 3 offered teachers differentiated coaching, targeting needs identified by teacher self-assessments. During this phase, teachers reflected on their strengths and weaknesses regarding the use of the Guided Math framework in their classrooms to determine their greatest need for the final block of coaching support.

The Chinook School Division created a comprehensive implementation plan that was consistent throughout the division. With this step-by-step approach, teachers knew precisely what was expected of them. Well-trained mathematics coaches first demonstrated what was being expected to support them. Just as teachers were being asked to differentiate instruction for their classes, the coaches modeled the differentiation of coaching during Block 3 of the second year of support. Coaches continued to support teachers and monitor the implementation of Guided Math as teachers gained experience using the framework. The Guided Math training sessions were recorded so that they could be used with new teachers. In addition, coaches were available to provide support for those who were just beginning the implementation process. According to Ed Varjassy, Curriculum Coordinator for the division, “the professional learning model of workshops with follow-up classroom coaching has been very successful in changing teacher practice” (Laney Sammons, pers. comm.).

Launching Guided Math Professional Learning Communities

Once the structural and organizational format for PLCs is determined, there are five steps leaders can take to get them up and running.

- 1. Educate the professional community about Guided Math PLCs.** The implementation process begins with leaders educating the professional community about Guided Math PLCs. Especially important is educating those individuals who are well respected within the school community. When those educators become enthusiastic about the value of PLCs, they convince others of their worth.
- 2. Train teachers how to engage in professional learning through PLCs.** To some, the prospect of working together with other teachers to change their current teaching practices may seem a little threatening. Leaders can allay some of these concerns by providing training on the functioning of PLCs. The success of PLCs is dependent upon teachers having a sense of collective efficacy, “group members’ shared perception or belief that they can dramatically enhance the effectiveness of an organization” (Marzano, Waters, and McNulty 2005, Kindle Location 1790). The existence of this sense of being able to collectively make a difference is critical because it has been found to be a better indicator of student success than the socioeconomic status of students. Leaders must champion the belief that teachers’ joint efforts really do make a difference and be able to back it up by highlighting examples.

In addition to having a belief in collective efficacy, teachers must learn how to engage in “meaningful professional conversations within the collegial setting of the PLC” (Balka, Hull, and Miles 2010, 114) for PLCs to function effectively. Most teachers have had little experience with these kinds of conversations, so it should not be assumed that they have these skills. The listening, clarifying, reflecting, and probing skills needed for these professional conversations should be explicitly modeled and discussed during faculty meetings and coach-led meetings, so that teachers learn how to apply them when working together in PLCs. The use of protocols provides structure for the discussions, but before they can be used, teachers have to learn about them and how to use them effectively.

- 3. Nurture the development of PLCs.** PLCs need support and resources to flourish. Teams should know to whom they should turn when they need either of those. If PLCs are to implement Guided Math, they require resources to support their initial learning about the framework (e.g., books, overview training, model lessons, and manipulatives). Moreover, occasional release time allows teachers to observe their peers as they implement Guided Math in their classrooms so they can see how others are implementing the components of the framework. They need to have leaders to turn to who will make these observations possible.

While principals may be responsible for providing some of these resources, coaches are frequently the “go to” people for PLCs. If coaches are not available, an assistant principal, a lead teacher, or a curriculum director may be designated. Whoever serves in this capacity, however, must have a deep understanding of the Guided Math framework and how it can be used in the classroom. As the implementation process continues, PLCs will also require assessment data and time for teachers to analyze it to gauge the impact of this instructional framework on student achievement.

- 4. Monitor the work of the PLCs.** Leaders need to be aware of what occurs in PLCs—but, not in an evaluative or secretive way. If PLCs are important enough to be taken seriously by staff members, they are worthy of the close attention of leaders. The extent of a leader’s focus and attention to the operation of PLCs signals to the professional community the importance of the work of these teams. Leaders may monitor PLCs by attending meetings, reading meeting minutes, making classroom visits, or analyzing relevant data on student achievement. In most schools, PLCs submit meeting minutes to keep leadership informed of their work and this information can be shared with the entire professional community.

The task of monitoring is not limited to being aware of what occurs in meetings, but should also include checking to see that this professional learning positively impacts classroom teaching and learning. The expectation is that teachers will apply what they are learning to increase their instructional effectiveness. “Teachers need to understand the process of monitoring and accept feedback as they do other supportive data” (Balka, Hull, and Miles 2010, 114). Additionally, as teacher

leaders emerge from the PLCs, administrative and coaching leaders may meet with them as mentors and candidly discuss the functioning of the PLCs.

- 5. Celebrate the successes of the PLCs.** To promote a sense of collective efficacy among teachers, it is important to highlight their successes. Celebrations of PLC accomplishments reinforce the belief that their collaborative efforts do, in fact, result in increased student achievement. Moreover, Amabile and Kramer (2011) find that “progress motivates people to accept difficult challenges more readily and to persist longer” (Kindle Location 91). Thus, the celebration of small achievements by leaders motivates PLC teams to continue to take risks and persist in their efforts to increase student learning.

Making Time for Guided Math Professional Learning Communities

Collaborative learning in Guided Math PLCs takes time. And, time is in short supply in schools. But, perhaps the problem is not just a lack of time, but how the time is used. Stoll, Fink, and Earl (2003) share the story of a man struggling to saw trees with a dull saw. When someone suggests that he sharpen the saw, he explains that he has so much to do that he does not have time to sharpen the saw. “If we organize our days and weeks a little better and find time to ‘sharpen the saw’ then our productivity increases and our mental well-being improves” (Kindle Locations 2393–2396). This is, of course, a problem that educational leaders wrangle with on a regular basis. Yet, leaders have the responsibility of prioritizing and making time for what has the greatest potential for increasing student learning. So, how can time be better organized?

Calling upon the professional community for solutions to the time problem can generate ideas specific to a given school. This kind of brainstorming activity is beneficial because it is inclusive of all members of the community. It leads teachers to not only recognize the problem, but also to be a part of its solution. Hord and Sommers (2008) offer leaders a host of possible ways to make time for PLCs that were proposed by the Southwest Educational Development Laboratory, some of which are listed as follows:

- ✎ Bank time by choosing one hour a week before or after school for PLC meetings which would be compensated for by eliminating district-wide professional development days.
- ✎ Extend the school day or year to give additional time.
- ✎ Have PLCs meet before or after school.
- ✎ Pay for Saturday PLC meeting time.
- ✎ Handle administrative matters in writing so regular faculty meeting time could be used for PLCs.
- ✎ Have teachers from one grade level host “buddy work” with another grade level so that those teachers could meet for PLCs—then trade off the following week.
- ✎ Procure grant money to pay stipends for teachers meeting in PLCs after working hours.
- ✎ Use state professional development days to create time for PLCs during the school year.
- ✎ Provide compensatory time off that can be taken by teachers before or after regular school hours to make up for extra time spent in PLC meetings. (Adapted from Hord and Sommers 2008, *Kindle Locations* 791–803)

Unless provisions are made for adequate meeting time, Professional Learning Communities will fail to flourish. If teachers feel rushed or severely imposed upon, they may attend, but will only nominally participate. Finding ways to make time for high quality professional learning demonstrates the commitment of leaders to support teachers’ professional development and their confidence that when teachers work together, it makes a difference.

School-Wide Support for Guided Math Professional Learning Communities

The success of Guided Math PLCs rests on the entire professional community—leaders, teachers, and support staff. Without whole-hearted commitment from everyone involved, PLCs can become just another ineffective professional development strategy. According to Fullan (2005), “building a PLC is difficult, but it is also unquestionably doable. Educators

Mathematics Instruction Observation Form

Teacher Observing _____ Date _____

Characteristic	Evidence to be collected	Evidence Observed
Emphasis on mathematical vocabulary	Math word walls, use of math vocabulary games, or use of math vocabulary journals observed	
Type of instruction	Whole-class Small-group Math Workshop	
Use of concrete/ representational/ abstract continuum of instruction	Use of manipulatives, multiple representations, and scaffolded transitions from one to the other	
Accountable math talk by students	Teacher Talk Student Talk Seat Work	
Differentiation of instruction to meet students learning needs	With small-group lessons or differentiated tasks	
Support for struggling learners	Small-group lessons or one-on-one conferences to provide support for struggling students	
Effective routines and procedures	At least 4 of 5 students asked can describe the routines and procedures they are expected to follow and are observed following them.	

Mathematics Improvement Plan

Shared Vision:

Action Plan:

Process Goals and Measures

Goals	Measures

Results Goals and Measures

Goals	Measures

Guided Math Needs Assessment

1. How comfortable do you feel using Guided Math?

Not at All Somewhat Moderately Very Comfortable

2. How comfortable do you feel using small groups in math?

Not at All Somewhat Moderately Very Comfortable

3. How often do you use small groups in math?

Never Once a Month Once a Week Several Times a Week

4. Circle the things that may help you feel more comfortable using Guided Math.

Workshops Book Study Observing Modeled Lessons Q & A Session

Other (please list) _____

5. Please list any barriers you feel may prevent you from using Guided Math in your classroom.

6. Please list any questions you have regarding Guided Math.

(Adapted from Catiia Greene and Laney Sammons, pers. comm.)