Logic Model as a Roadmap to Reach Intended Goal

What do you want to accomplish?

Implementation of writer's workshop in all classrooms (K-5) within ABC Elementary School.

Writer's workshop is an instructional approach for teaching writing in which students learn to think of themselves as writers as they compose pieces in different genre, around relevant issues and for real audiences. "The teacher is a writing professional and peer coach, guiding authors as they explore their craft" (Steve Peha; http://www.ttms.org/PDFs/05%20Writers%20Workshop%20v001%20(Full).pdf)). Instead of spending the majority of class time on isolated skills such as mechanics, students spend most of their time choosing their own topics and managing their own development of ideas. Teachers provide mini-lessons taught in the context of authentic writing; focused on real-world issues. The majority of class time is reserved for writing; conferencing; sharing; students choosing their topics and forms; emphasis on authentic audiences and purposes; writer's notebooks' frequent teacher modeling; five days a week.

Goal statement (intended results for students):

Using a Six-Trait writing rubric, 100% of the students in ABC Elementary School will score no lower than a Level 4 on all six traits on their final grade-specific writing sample in May (e.g., narrative, persuasive or informational).

Order of planning ← ← ← ←

RESOURCES *Time, materials, people*	PROCESSES/ACTIVITIES *Professional learning*	EDUCATOR LEARNING OUTCOMES *Changes in educator knowledge, skills, and dispositions*	EDUCATOR PRACTICE OUTCOMES *Changes in educator practice*	INTENDED RESULTS FOR STUDENTS *Changes in student results*

• 45 min a week for Grade-level team meetings
• By-weekly staff meetings
• Lucy Calkins writing materials
• Title II $ for professional learning sessions
• Writer's Workshop material
• Instructional Coaches
	• Full day professional learning sessions on:
	  o Workshop format and management
	  o understanding the anatomy of a mini-lesson and developing the series of mini lessons for a unit
	  o Coaching student writers
	
	• Staff observes teachers in other schools implementing Writer's Workshop, with time to dialogue with the classroom teachers about their practice.
	
	• Grade-level teaching labs where teachers design mini-lessons together, observe one another implement the lessons; provides feedback; collaboratively analyzes student work.
	
	• Coaches co-teach, model. provide feedback to classroom teachers.
	
	• Principal observes/provides feedback
		Educator
		Knowledge:
		• Understand writer's Workshop format (e.g., mini-lessons, sharing)
		• Guiding principles for designing effective mini-lessons
		• How to write for different audiences
		• Differences amongst genre
		• What is developmentally appropriate
		• What teachers do while students are writing
		Skills:
		• Use of collaboration techniques (e.g., furniture placement, forms)
		• Use of techniques for response, including student-teacher conferences, Coaching student writers
		• Assessment of student writing using six traits rubric
		• Techniques for differentiating to meet learning needs
		• How to identify what is meaningful to students
		Dispositions: Growth mindset
			Educator practice required to implement Writer's Workshop (not inclusive):
			• Establish a positive atmosphere for writing
			• Structure mini-lessons so students can observe, discuss, and simulate the targeted writing craft lessons and skills
			• Provide opportunities for students to collaborate as writers, thinkers and learners
			• Arrange for students to have constructive response to their writing and to offer response to other writers
			• Conferencing with students
			• Use exemplars to teach writing traits and different genre
			• Use diverse reading materials to model the importance of craft and idea
			• Differentiate instruction to meet students' learning needs
			• Promote student choice and ownership
			• Provide opportunities for authentic writing
				Students will integrate the following six traits in their narrative, persuasive or informational text by the end of the year:
				• Ideas and Content
				• Sentence Fluency
				• Word Choice
				• Voice
				• Organization
				• Conventions

Order of implementation → → →

FOCUS FIRST *on* OUTCOMES

WHEN PLANNING CHANGE, IMPROVED STUDENT LEARNING IS THE ULTIMATE GOAL

By Janice Bradley, Linda Munger, and Shirley Hord

"We're trying to determine what to do to gain expertise in developing students' understanding of fractions," 3rd-grade teacher Jose said to the teachers in his professional learning community. "We've studied multiple sources of achievement data endlessly, so let's decide what the data tell us and identify where and why our kids are performing so poorly."

"What do we need to do to be able to teach fractions, as defined by the core math standards? Is there something that we need to learn?" Bertha Mae asked.

Thomas said, "We have invested several professional learning community sessions in studying, analyzing, and interpreting student data. We've talked a lot, but now it's time to make a decision on what we need to do about our 3rd graders' lack of success in understanding fractions."

"I agree," Bruce said. "We are all being highly collaborative, as usual, and that's what makes our professional learning community so productive. But we've done enough data analysis. Let me suggest a goal for our own learning that includes the activities we have been discussing: *'We will review the research on how students develop understanding of fraction concepts and interact with our district mathematics coordinator, our math teacher leader, and our school's math instructional coach.'"*

"You have rattled off a bunch of ways to learn how to teach fractions," Judith said. "Are those activities the ones that will help us to reach the goal — whatever it is? We've been dancing around with these and other activities during our discussions. Your statement seems to lack precision about what we need to learn to improve student results. Do we know what it will look like if students understand fractions? Maybe our goal should be: *'We will learn how to effectively teach our students so they understand and precisely articulate their understanding of fractions.'"*

MAPPING A PATHWAY TO CHANGE

Baseball Hall of Famer Yogi Berra once said, "If you don't know where you are going, you'll end up someplace else." Educators working to achieve changes in classroom teaching practices that lead to improvement in student learning need to gain clarity in where they are going — what they want to accomplish.

Teachers in a professional learning community need a road map as they begin learning and applying a new practice to ensure they reach their intended goal focused on student learning results. A logic model — a tool used by change leaders to plan a change project and identify performance measures — describes a path toward a desired result. In building a logic model, the planning process focuses first on outcomes and requires the following questions to be answered in sequence:

1. What is the current situation that we intend to impact?
2. What will it look like when we achieve the desired situation or outcome?
3. What behaviors need to change for that outcome to be achieved?
4. What knowledge or skills do people need before the behavior will change?
5. What activities need to be performed to cause the necessary learning?
6. What resources will be required to achieve the desired outcome (McCawley, n.d.)?

The theory of change on p. 47 is often used to plan and assess a change project and shows the relationship between the effectiveness of professional learning and its effects on educator practice and subsequently on student learning. The results for students should be the ultimate goal of the change project. The logic model on p. 46 uses the information from the opening scenario to show how to map a pathway to change.

In the opening scenario, the 3rd-grade teachers in the professional learning community want to increase their knowledge and skills in how to teach students to develop understanding of fractions (educator learning outcome). Some of the processes (activities) used to accomplish this learning outcome were to review the research on how students develop understanding of fractions and interact with math specialists for support.

As a result of these processes, teachers want to gain the necessary knowledge, skills, practices, and dispositions (educator performance outcome) to increase students' understanding of fractions (student learning outcome).

Lindsey, Lindsey, Hord, and von Frank (2015) say that learning is key to change: learning what the new practice is and how to use it. The rationale for the Outcomes standard in Learning Forward's Standards for Professional Learning states: "Professional learning that increases results for all students addresses the learning outcomes and performance

LOGIC MODEL AS A ROAD MAP TO REACH INTENDED GOAL

What do you want to accomplish?

Goal statement (intended results for students): By end of school year, 3rd-grade students will increase their understanding of fractions and be able to precisely articulate their understanding of fractions as a result of teachers learning how to effectively teach fractions.

RESOURCES *Time, materials, people*	PROCESSES/ ACTIVITIES *Professional learning*	EDUCATOR LEARNING OUTCOMES *Changes in educator knowledge, skills, and dispositions*	EDUCATOR PRACTICE OUTCOMES *Changes in educator practice*	INTENDED RESULTS FOR STUDENTS *Changes in student results*
• Professional learning community sessions. • Math specialists (school, district).	• Meet in professional learning community sessions. • Study, analyze, and interpret student data. • Review the research on how to teach students to understand fractions. • Interact with math specialists.	• Increased knowledge and skills in teaching students how to develop understanding of fractions. • Recognition of the value of teaching fractions.	• Implementation of effective teaching strategies to increase students' understanding of fractions. • Demonstration of enhanced content knowledge when teaching fractions.	• Evidence showing students' increased understanding of fractions. • Increase in the number of students scoring proficient or higher on fractions.

Sources: Killion (2008), Love, Stiles, Mundry, & DiRanna (2008).

expectations education systems designate for students and educators. When the content of professional learning integrates student curriculum and educator performance standards, the link between educator learning and student learning becomes explicit, increasing the likelihood that professional learning contributes to increased student learning" (Learning Forward, 2011, p. 48).

BACKGROUND

This article derives from the work of the Learning Forward Foundation's Research and Support Committee and from committee members' experiences working closely with schools and district staffs on school improvement. The foundation awards seven grants and scholarships through an application and selection process.

The applications focus on the use of Learning Forward's Standards for Professional Learning (Learning Forward, 2011) to accomplish changes in schools and districts that will ensure improvement in classroom practice. With the grantees, the committee explored the complexity of the projects that grantees were undertaking to improve educational practices in their school or district.

Several years of structured and collegial conversations with the grantees provided consistent findings: Just like their colleagues engaged nationwide in school improvement, grantees

expressed confusion about the goal(s) of their projects, the actions required to reach the goals, and exactly what results or outcomes they expected to achieve.

The foundation has a strong commitment to the success of those who receive its funds and to the donors who make the funds available. A key to this is to eliminate the confusion suggested in the opening scenario — and expressed by school improvement leaders everywhere — and provide clarity about the structure and content of an improvement project and use of terms such as goals, results, and outcomes.

WHY THE CONFUSION?

Beginning a change project without knowing where one is going creates confusion — uncertainty and doubt about what to do differently to see changes in educator practices and improvement in student results.

When educators focus on activities first, they assume that changes and improvements will result. However, without a clear image of the desired outcomes, educators' frustration occurs year after year when educator practices and students' learning do not change or improve.

In the 3rd-grade professional learning community, Bruce immediately reacted to the data showing low scores with fractions. His quick solution was for the team to review the research on how students develop understanding of fractions and inter-

act with school and district math educators. Bruce began thinking about the processes (reviewing the research and interacting with the math specialist) without clarifying desired outcomes or the changes that would result.

Instead, Bruce needs to define the desired outcomes first, then identify activities and resources that would support educator changes. His response is typical of educators who spend time in professional learning communities analyzing data, then assume that the solution resides in investing in finding resources or engaging in activities, not in envisioning the outcome first. Bruce deserves credit for knowing to review the research first, and then interacting with math specialists; however, this is not the goal of the project. The goals are the outcomes for educators and students.

Why is there confusion about writing goals for change projects? Three possible reasons are:
- Lack of awareness that the confusion exists;
- Habits of individual and collective thinking that have developed in a fast-paced school culture over time; and
- Lack of time and focus for learning about the difference between process-focused and outcome-focused goals.

Habits of thinking that exist in schools involve jumping to solutions to get things done. Principals have been known to say, "Don't just name the problem. Offer the solution." When the data indicate students' lack of achievement, educators rush to actions with which they are familiar.

The 3rd-grade teachers were quick to find activities to improve students' understanding of fractions. Their premise seems logical, yet leads to a conclusion that may be contradictory. When end-of-the-year state assessment scores arrive, teachers are dismayed and flabbergasted that student scores in the fraction areas did not improve or decreased. "We worked so hard! Our short cycle data indicated improvement. Why didn't student scores on the state assessments improve?"

School cultures promote jumping to solutions and not to thoughtful envisioning or planning. Contributing factors might include the fast pace of school life or educators' lack of knowledge of a planning process, such as a logic model.

It's difficult, yet not impossible, for educators to find time to change their mindsets and dispositions by learning about the relationship between professional learning and student results and about logic models as road maps to reach intended goals.

Once the school year begins, educators exist in a culture where they move at a fast pace managing multiple initiatives that change frequently. Some educators describe their day-to-day experiences as overwhelming, where the primary concerns are managing multiple initiatives, not gaining new knowledge to impact students.

SHIFTING FROM CONFUSION TO CLARITY

Confusion can serve as an opportunity for learning, as confusion is a natural part of learning. Without confusion about

THEORY OF CHANGE: RELATIONSHIP BETWEEN PROFESSIONAL LEARNING AND STUDENT RESULTS
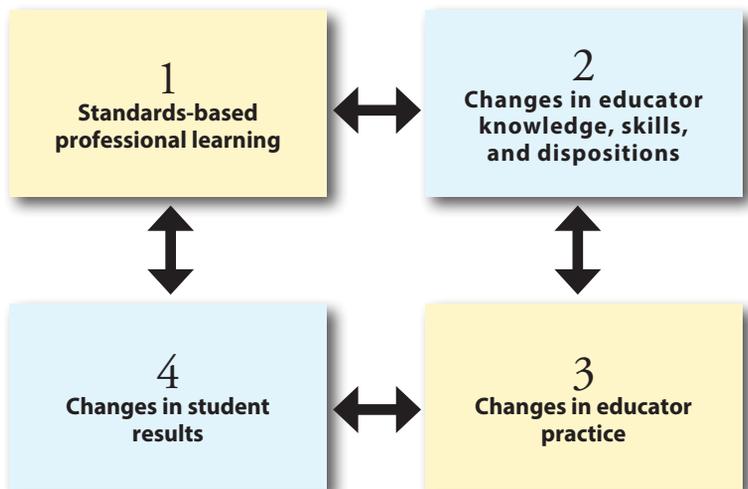
1. When professional learning is standards-based, it has greater potential to change what educators know, are able to do, and believe.
2. When educators' knowledge, skills, and dispositions change, they have a broader repertoire of effective strategies to use to adapt their practices to meet performance expectations and student learning needs. These changes in educator knowledge, skills, and dispositions are stated as learning outcomes.
3. When educator practice improves, students have a greater likelihood of achieving results. These changes in educator practice are stated as practice outcomes.
4. When student results improve, the cycle repeats for continuous improvement.

Source: Learning Forward, 2011, p. 16.

challenging new concepts, it's hard to have new insights. In this case, confusion can be a learner's friend (Mazur, 2012). Two shifts need to happen to address the confusion about the difference between activities and outcomes. First is *shifting mindsets* — the established set of attitudes and ways of thinking. Second is *shifting language* — from words that describe activities to words that describe outcomes.

Shifting mindsets implies moving from an established set of attitudes and ways of thinking about activities before thinking about outcomes to thinking about outcomes first. Carol Dweck's (2007) research on mindsets informs us that fixed mindsets can change. The 3rd-grade teachers' fixed mindset is illustrated by their insistence that a focus on doing something, such as reviewing and interacting with math specialists, will change their learning and practice to increase students' understanding of fractions.

It is essential for the teachers to create an awareness of this confusion — that thinking about activities as a solution before thinking about results will lead to change and improvements.

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Focus first on outcomes

Awareness opens the door for thinking differently and changing mindsets. Now, mindsets shift to thinking about results first, then activities to achieve results.

Shifting language requires a shift in the difference in action words used to describe outcomes versus activities. Neil Mercer says that, in a community, "language for collective thinking depends on the shared, continuing activities of established groups with common interests and goals" (Mercer, 2000). Educators are in a habit of thinking about activities first when faced with a problem or challenge and, therefore, are quick to jump to solutions by setting process goals.

Teachers need to recognize the relationship between professional learning and student results and understand how logic models serve as road maps to reach intended goals. This opens the door to a new way of thinking and planning with a focus on the desired outcomes first.

Learning is the key to change. As stated in *Standards for Professional Learning,* "Standards for school and system leaders, like teacher standards, describe what effective leaders know and do so that every student and educator performs at high levels" (Learning Forward, 2011). The challenge becomes knowing how to use language to clearly articulate the desired outcomes so that everyone shares the same mental images of expectations.

Educators must build a coherent way of thinking and use language to connect the dots, following this path: data that identify what students need, clear articulation of what educators need to change based on student needs, an image of what it looks like in action in the classroom, ways teachers gain the knowledge and skills to make the changes in their practice, and, finally, activities to reach the desired outcomes.

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