

The learning team cycle promotes continuous improvement

Where are we now?

We are committed to implementing a learning team cycle.

STRONGLY AGREE AGREE NO OPINION DISAGREE STRONGLY DISAGREE

We determine or refine student learning goals in alignment with a vision of good teaching and learning at the district or school level.

STRONGLY AGREE AGREE NO OPINION DISAGREE STRONGLY DISAGREE

Our own learning is grounded in the challenges our students face.

STRONGLY AGREE AGREE NO OPINION DISAGREE STRONGLY DISAGREE

We have access to multiple sources of data that we use to inform our learning.

STRONGLY AGREE AGREE NO OPINION DISAGREE STRONGLY DISAGREE

We monitor and reflect on our learning goals to know whether we're making progress.

STRONGLY AGREE AGREE NO OPINION DISAGREE STRONGLY DISAGREE

We can schedule our learning in alignment with key student goals and dates.

STRONGLY AGREE AGREE NO OPINION DISAGREE STRONGLY DISAGREE

Overview

Educators and quality-management practitioners in other professions often speak of improvement, learning, or change as happening in a cycle. In its most basic form such a cycle occurs when active learners — whether adults or children — observe the world around them, take action based on what they understand, and then reflect on what happened before they plan their next steps, usually modifying their actions to better achieve the results they seek.

This chapter reviews application of cycles of continuous improvement in education organizations, covers the five stages of Learning Forward’s learning team cycle, and offers reflection questions and tools for further work (see Tool 2.1: Understanding the Five Stages for more information about the learning team cycle).

How does a team set a context for learning and continuous improvement?

Teachers may bring their individual learning to bear on activities in classrooms and schools, but the more they can apply and refine that learning within a collective activity, the more quickly the culture of continuous improvement grows. When teachers seize opportunities to create, lead, and learn in teams, they and their students benefit — if the teams understand how to frame the purpose and focus of their work.

After all, a mandate to collaborate may begin a team’s work together, but it will not help them achieve success. Michael Fullan has drawn attention to the fact that collaboration too often is structured without the intentionality required to get positive, measurable student results (Hirsh, 2016). The learning cycle creates

such a structure: It promotes “collaboration and collective responsibility within a teacher team by setting up structures for short-term cycles of improvement” (Michigan Department of Education, n.d.). *Plan, do, reflect* is a commonly used three-step cycle, and a well-known four-stage cycle, also known as the Deming Cycle, is the *plan, do, check, act* cycle (American Society for Quality, n.d., para. 3). Bruce Wellman and Laura Lipton (2009) advance their Collaborative Learning Cycle of *activating and engaging, exploring and discovering, and organizing and integrating* (p. 5).

Learning Forward’s Standards for Professional Learning put a cycle of continuous improvement at the heart of collaborative learning. The standards embody a belief that a *learning team cycle* is the day-to-day means for embedding professional learning in classrooms, thus supporting teachers when they need it most. There are many forms of learning cycles, cycles of inquiry, or cycles of continuous improvement. Within professional learning in education alone, educators can find several examples.

In their professional learning community work, the DuFours and Robert Eaker (2008) have said that a learning team collaborates to determine (a) What is it that they want students to know? (b) How will they know if students know it? and (c) What will they do if students do know or don’t know it? To learn the answers to those questions, DuFour and colleagues (2010) note that learning communities use a cycle of inquiry that includes five stages: gathering evidence of student learning, developing strategies to address weaknesses and strengths in that learning, implementing new strategies, analyzing the impact of new strategies, and applying new knowledge in the next cycle of continuous improvement (DuFour, DuFour, Eaker, & Many, 2010).

Inquiry cycles are central to both lesson study and action research learning designs, for example. In

lesson study, teams of teachers focus intently on specific classroom lessons. They consider carefully which short- and long-term student learning goals to emphasize, collaboratively plan a lesson, teach the lesson while colleagues observe, and then discuss and revise the lesson based on what they learn about the results of the lesson and its effect on student learning; often, other team members teach the next iteration (Lewis, 2014). In action research, Richard Sagor (2000) outlines a seven-step process that begins with selecting a focus and continues through clarifying theories, identifying research questions, collecting data, analyzing data, reporting results, and taking action informed by what teachers learn from data analysis.

The National School Reform Faculty (2014) also promotes a cycle of inquiry for professional learning, developed by the Southern Maine Partnership. The stages are analyzing data, framing or reframing key issues, investigating literature and expertise, developing an action plan, and carrying out strategies and collecting data.

Finally, in Anne Jolly's (2008) *Team to Teach: A Facilitator's Guide for Professional Learning*, learning teams use a collaborative decision-making cycle with the following steps: identify student needs, examine studies and research, engage in rigorous reflection, use research and wisdom to make good choices, collaboratively experiment with new teaching practices, monitor and assess implementation, communicate information to other stakeholders (p. 29).

These examples are not exhaustive, but they demonstrate the field's widespread support for an iterative process that deeply engages educators in the work of studying student needs, preparing lessons, assessing their own knowledge, and reflecting on specific practices to inform next steps. Such cycles offer meaningful opportunities for teachers to put student understanding front and center, inquire collaboratively into what

they as educators know and don't know how to do, and discuss their impact on student learning. Teachers using a learning team cycle begin with a plan that anticipates how their learning and instructional choices will affect what students know and are able to do. They will adjust those plans as they build skills, knowledge, and dispositions while they move through the cycle.

What is the learning team cycle?

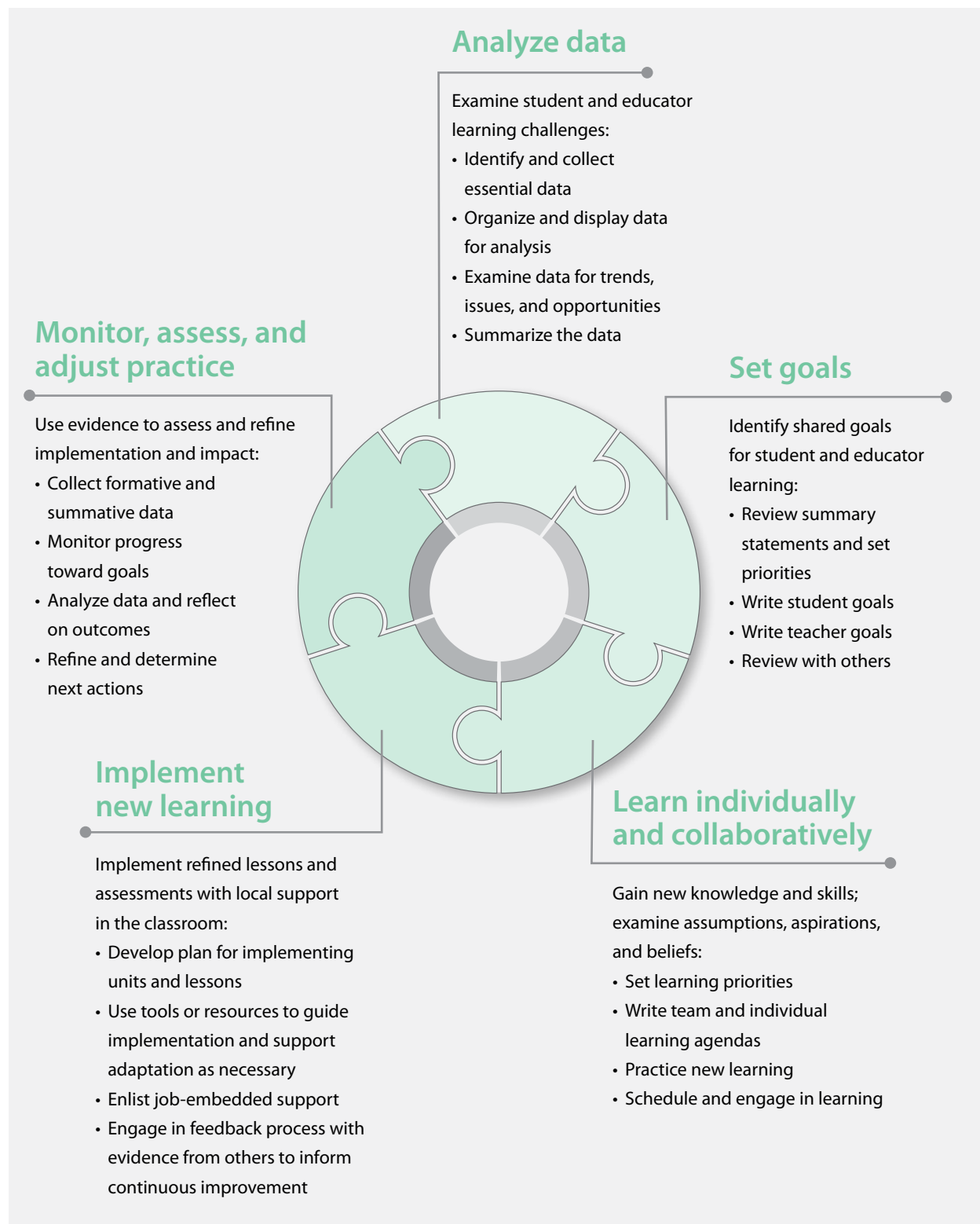
In this book, the learning team cycle is a five-stage process aligned with Learning Forward's Standards for Professional Learning to guide the learning team's work (see Figure 2.1). The descriptions on pages 19–22 briefly describe each stage of the learning team cycle; Chapters 3 through 7 examine the stages and procedures to implement them in more detail.

Entering the cycle

Once they decide to use a learning cycle, how do school-based learning teams know which student learning gap they're going to address during their time together? In a coherent and aligned system, this work will be driven by the system's common vision for good instruction. Communicated through content standards, instructional frameworks, and performance standards, the vision for a system makes clear to every educator what students will know and be able to do; thus, an articulated vision drives teachers' performance expectations. In their effort to identify a focus area, which is aligned with district and school goals, the team may also review strategic priorities; systemwide, school and individual goals for improvement; and school improvement plans (see more discussion in Chapter 9).

When teachers move from the district's common vision to the collaborative work they're going to

Figure 2.1: Teacher learning team cycle



address as a team, they identify their area of focus broadly in several ways. They are likely to funnel down from a general goal tied to the common vision to the specifics addressed by their grade-level or subject-matter teams. In doing so, they examine relevant data, including different types of student assessments, accountability measures, and maybe examples of student work. Examples of considerations that might drive a team's challenge include the following:

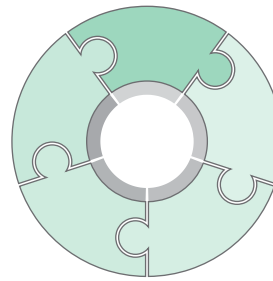
- The district has identified a systemwide improvement priority for all teams: *We're focusing on academic language skills for all students with a particular emphasis on English Language Learners.*
- The school has identified particular improvement goals based on the previous years' assessments: *Our school will raise our proficiency in ELA by 15%, mathematics by 8%, and science by 8%.*
- The grade levels in a school have identified specific content standards that need attention: *We will improve our third graders' understanding and use of fractions this year.*
- The subject-matter teams have identified specific content standards that need attention: *The social studies teachers will focus on improving students' text comprehension and discussion skills.*

Because teachers regularly tackle numerous challenges, they will be addressing several student learning improvement goals at the same time. Teachers, first, need to prioritize which learning challenge they can best address with learning teams. Then, they can apply the five-stage learning team cycle and determine, together, the appropriate problem to resolve. A team may find that the problem jumps out at them after they analyze the most recent assessment data. Or they may realize the root problem after they examine data showing performance differences among

subgroups of students within a grade level. Members make their own decisions about how they choose a problem and make it a priority to study and address. To take advantage of such flexibility, team members will want to be familiar with the entire cycle.

Moving through each stage

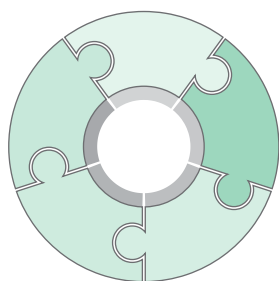
Each chapter of this book will examine in depth one of the five stages described here.



Analyze data: Examine student and educator learning challenges

In this stage, team members analyze data so they can identify and better understand the exact problem they are addressing. For example, although a team's schoolwide goal might be to increase reading comprehension, only by looking at student data will members know exactly which elements of reading comprehension are problematic or which areas of the curriculum raise concerns; who is struggling and who is succeeding. Depending on their sources of data, educators may also get information identifying teachers who have been more successful and might be good sources of information about instructional strategies.

To use data successfully teams need to work in a culture where they embrace the use of data. School leaders will consider how to create a supportive culture in which teachers benefit from professional learning and other supports to develop knowledge and skills to use data effectively and avoid becoming overwhelmed by the quantity of data. Team members will access, examine, and interpret data to write data summary statements.



Set goals: Identify shared goals for student and educator learning

At this stage teams discuss their data summary statements and select student and team learning goals. These goals align with the school system and school improvement goals yet are specific to the needs of their students and the units or lessons coming up in the curriculum. At that point, they can set specific student learning goals, expressed as SMART goals: specific, measurable, attainable, results-based, and timebound.

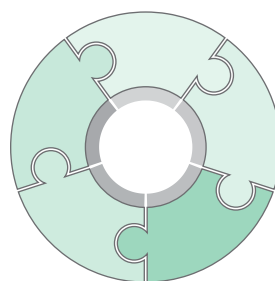
During this stage the team is writing an actionable learning plan that includes the development of classroom strategies and the timing for learning about and using those strategies (throughout the five-stage cycle, teams may use Tool 2.2: Reviewing the Learning Team Cycle to begin and track progress on their cycles). After the team determines what their students need to know and be able to do, they turn their attention to what the adults must learn and be able to do to help achieve student goals. For example, from their data they see that lower-performing students consistently lag behind in grade-level vocabulary development. The team members may realize that as teachers, they need to learn different instructional and classroom strategies tied to rigorous vocabulary use. Depending on the student learning goal(s) they've set, teachers may find that they need to focus on any of a range of improvement goals for themselves, from developing content knowledge, to trying new instructional strategies, to using technology to engage with particular groups of students in different ways.

Team members take a critical step by setting their own learning goals. If they don't set learning goals for themselves, they may resort to applying what they

already know, which is presumably what produced the previous results. Or they may find themselves experimenting with new strategies without a deep understanding or sufficient preparation to implement those new strategies with fidelity.

Yet, setting goals may challenge teams, sometimes, because individuals may find it difficult to identify what they think they know and what they need to know. Teams may mitigate the challenge with individual or collective self-assessment. A powerful mechanism for professional growth, self-assessment contributes to a teacher's belief about his or her self-efficacy. Researchers John Ross and Cathy Bruce (2007) find that teacher efficacy influences goal setting. So, teachers who have strong self-efficacy are likely to set high goals for themselves and their students.

This stage paves the way for ensuring that educator learning is intentional and tied directly to what students need to learn. Without explicit outcomes stated for both educators and students, team members may lack clarity about their beliefs and understanding of how their practices influence what students take away from the classroom. During this stage of the cycle, team members articulate the links between their practices and student understanding. They are also deliberate in addressing not only the knowledge and skills they need to meet student learning needs but also the behaviors, attitudes, and aspirations essential to continuous improvement.



Learn individually and collaboratively: Gain new knowledge and skills (e.g. content and content-specific pedagogy); examine assumptions, aspirations, and beliefs

When teams know their own improvement goals, they are ready to engage in learning to change their

attitudes, build their knowledge and skills, and improve their practices. Constantly focusing on the learning goals they set for themselves and their students will help them choose appropriate learning experiences. The curriculum and instructional materials they use with students will guide their learning. Team members will study the student and educator materials carefully to determine the specific content of their learning and to identify additional gaps in their own expertise.

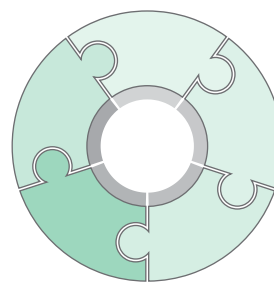
Team members also need to decide how they might best differentiate their individual learning, especially when they begin to learn as a team. They may seek deliberate facilitation from a colleague or coach so that each team member can say what he or she would like to learn to address the learning goal. If teams believe that they lack knowledge of learning designs, they may seek guidance from a colleague, district staff member, principal, or consultant who can advise them on design options.

While the team may have set collective goals to achieve, each team member has his or her own learning preferences, works at a particular career stage, and already has a unique level of content and pedagogical expertise tied to the goal. At first, teams may need to be explicit about how they address and accommodate their differences; they may want to assign roles in meetings (see Tool 2.3: Creating Purposeful Team Roles) to help inventory and clarify roles that contribute to the team function. As they learn together during the course of a cycle, members will better understand how each learns as well as what each brings to the work. Over time their learning and working together will likely become more fluid.

Once they have clarity about the specific learning needs and inclinations of each team member, team members can identify expertise and learning design

options. They may seek information resources for book study. With the student curriculum as the basis for what happens in the classroom each day, teachers explore their instructional materials to review upcoming units and identify where they need to develop deeper content or pedagogical expertise. Then they determine how to approach their learning to achieve their goals. If they lack expertise in the building or district, teams may look elsewhere, perhaps an online network, course, webinar, or a technical assistance provider with a specialty focus. They may seek coaching on using particular strategies from their principal, an instructional coach in their building or district, or a coach on the team.

Learning may take many forms at this stage, and team members engage as active participants throughout the process; as part of their learning, they are looking ahead to application. Perhaps they take advantage of practice sessions or consult with peers who have successfully used the chosen strategies in the past. Whatever their choices, team members incorporate what they are learning into their lesson planning and student assessments as they ready themselves to use new tools, content, and ideas.

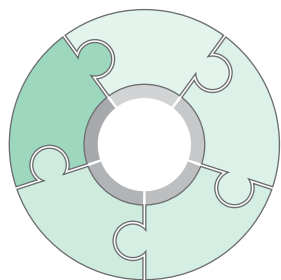


Implement new learning: Implement refined lessons and assessments with local support in the classroom

At this stage, team members take their learning into their classrooms. Although they may have had opportunities to try out strategies with peers, teachers only apply their learning in the classroom when they change their practices and behaviors in ways that affect what and how students learn.

Teachers' knowledge and skills will multiply as they apply their new learning in different contexts. As they become more familiar with new strategies, they become more skilled both in implementing new learning with fidelity and getting useful support from coaches and peers to improve. The first steps in the implementation of new knowledge rarely lead immediately to the intended outcome. Even at the classroom level, teachers can experience the *implementation dip*, or the point at which new practices at first show a decline in results. Change, after all, takes time, and moving a group of learners forward is a long-range process.

With positive supporting conditions, teachers may receive guidance from coaches or peers to apply their learning throughout this stage. Perhaps they co-teach a lesson with a peer; a coach may observe and support the teacher before, during, and after implementation by posing questions and offering suggestions. Or, team members may use video as a tool throughout the learning and application of new knowledge.



Monitor, assess, and adjust practice: Use evidence to assess and refine implementation and impact

After teachers take new practices into classrooms, they begin to watch how their new knowledge and instructional strategies affect what happens in the classroom. They gather evidence, which may take many forms, of the implementation of their learning. Not only do they watch how students respond during class time, they also collect data and information from classroom assessments and student work. For each student learning goal that they set, teams develop formative and summative assessments that measure precisely what they hoped to achieve.

Teams examine this evidence and consider whether new classroom practices are helping them achieve their goals. They also measure their use of instructional strategies. With this information, team members may realize they are on the right track and can refine the ways they are teaching students. They may also realize that their changes in practice aren't contributing to student learning, in which case they will adjust their assumptions and review their skills and practices. They'll need to consider several questions as they review and adjust: Did they make the right assumptions when they set their own learning goals? Did they engage in appropriate learning that really helped them achieve their learning goals? Did they learn what they needed before they put the strategy into practice? Did they implement the new learning with fidelity and get sufficient support in applying their learning in the classroom?

When teams have answered these questions, they are ready to advance to the next stage of the learning team cycle (or go back if they need to revisit a previous stage) so they may continue making progress toward better student outcomes.

How do teams apply the learning team cycle?

A big question for learning teams is, "How will we schedule their meeting time specifically to work through the stages?" This book proposes a 12-week cycle that takes teams through the five stages. In any specific school setting, of course, a team may need to adjust the schedule based on the time they have allocated for team meetings, the timing of assessment reports, the curriculum and instructional materials they use, the particular learning design(s) they choose, and myriad other factors that contribute to the pacing of both adult and student learning.

The example 12-week schedule (see Figure 2.2) is based on several critical assumptions:

- Teachers have three or more hours per week to dedicate to learning collaboratively with their teams.
- Teachers have access to the data they need to understand student learning gaps and set meaningful goals.
- Teachers are motivated to change short- and long-term lessons based on what they learn together.
- Teachers can set their learning schedules so that the application stage has them teaching an improved or augmented lesson during Week Seven of the cycle.
- Teachers work both individually and collectively on the problems they identify together: The learning doesn't happen solely during team time.
- Teachers have ready access to learning support within the school or district.
- Teachers work in a culture that prioritizes continuous learning for adults with a climate where trust pervades all interactions.
- Teachers know generally where their greatest student learning gaps lie, informed by school and system improvement goals.
- Teachers have the expertise and support to collaborate efficiently during limited collaboration time.

As teams become more experienced in using this cycle, and as schools develop a more inquiry-oriented culture, two things may happen to advance this work:

1. Team members and principals will develop a better sense of how to schedule multiple overlapping cycles in ways that support the entire instructional calendar; and
2. Team members will naturally think in more reflective ways at each stage of the process, and while

they are working through a particular stage, will be incorporating elements of other stages at the same time. That is, though they may be setting goals in Stage 2, they're already doing a certain amount of learning. Or while they are learning collaboratively in Stage 3, they're already actively reflecting on how they will apply those learnings in Stage 4 and carefully considering the intended impact on practice in Stage 5.

Figure 2.2 outlines the stages through 18 weeks to show how two learning cycles overlap. During a learning cycle, members of a team are unlikely to study all of their lessons together, but they do improve lessons with units that address high-priority learning goals. In this example, the team is learning to use visual models, including fraction bars, number lines, and area models to produce quotients of whole numbers and fractions. For each of two units, they are improving five week-long lessons, identifying common student errors, and developing responses to assist students in correcting those errors.

The team invests six weeks in data analysis, goal setting, intentional learning, and lesson improvement and assessment development before introducing Unit A. Soon after they begin teaching the unit, team members gather information from formative assessments and other monitoring tools to inform any changes they decide to make to their plan.

Things will rarely go as planned; however, having a desired vision gives the team a structure to support its work. And while the team is implementing its plan for Unit A, it will begin the process of planning for Unit B. The calendar shows the complexity of the work and why each stage is so important. Throughout the five-stage cycle, teams may refer to Tool 2.4: Scheduling a Learning Team Cycle to consider the stages, indicators, and a schedule for their learning cycles.

Figure 2.2: Scheduling two learning cycles

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Stage 1: Analyze data	Learning Cycle 1						Learning Cycle 2											
Stage 2: Set goals		Learning Cycle 1						Learning Cycle 2										
Stage 3: Learn individually and collaboratively			Learning Cycle 1							Learning Cycle 2								
Stage 4: Implement new learning							Learning Cycle 1					Learning Cycle 2						
Stage 5: Monitor, assess, and adjust practice									Learning Cycle 1						Learning Cycle 2			

Plan for time

Years ago, a large urban district lobbied diligently for learning time for teachers. The district leaders heard the demand, loud and clear, from teachers: “We need time to meet with each other!” So the leaders enacted a plan that gave teachers two hours of learning time a week. Within eight weeks, the schedule reverted to its previous timing.

When Learning Forward visited with union leaders to understand what happened, they shared that no one had an idea about what they were supposed to do with the additional two hours a week. “What’s the plan?” parents had wanted to know.

In fact, there was no plan, and that valuable opportunity — and much good will — was wasted.

— Stephanie Hirsh

Factors that influence cycle timing

Earlier in Chapter 2 the discussion of a continuous improvement cycle pointed out that the flexibility of the cycle supports teams in their own learning. Applying a cycle means team members pay attention to individual meetings and to what they need to do during each meeting to ensure completion of all stages. At the same time, teams also need to focus on the collective success of the cycle across longer time frames. Teams may enter the cycle at any point based on analysis of data or other feedback and their learning needs. Throughout this process, team members receive feedback (in the form of data from assessments or information from observations or study of student work) that shows them whether (and how) each of their choices leads to the outcome they anticipate. What they learn will help team members make assessments and adjustments that lead them forward in the

learning cycle. How teams use the cycle or how much time they spend at each stage, depends on the following factors: scope of the goal, level of development of the group, and knowledge and expertise of the group.

Scope of the goal

The team may not be able to focus as tightly on a student learning objective as this timing presumes. They may be driven by school or system standards, curriculum, goals, and objectives to address an even broader systemwide goal. Their educator effectiveness process may prioritize goals at still another scale.

Development of the group

If a learning team is just forming, its members may not yet fully trust one another in ways that lead to efficient collaboration. If a learning team doesn't contain members skilled in facilitation in collaboration, it may need to spend time getting up to speed in that arena to sustain long-term improvement.

Knowledge and expertise of the group

The members of the team may be at different career stages or levels of classroom experience and need more time for learning. Having a team with members of varying levels of skill and experience can benefit a learning team, particularly if the more experienced members are willing to contribute what they know, yet without taking over the decision making of the team.

The team may not contain much internal expertise or may need to tap external sources more often. So, how does a learning team know when it needs to draw on outside expertise at any stage of a learning cycle? The answer may be simple: Every team member may know from experience and data that he or she knows little or nothing about how to begin to address the challenge the team faces. But even when team members know they need to seek outside expertise, they consider a range

of questions as they set goals and plan their learning:


- Do we know of others in the building who have success with this or other student learning challenges?
- What have we experienced as learners that helps us consider where to turn?
- How can our coach or principal guide us toward information and people to determine next steps?

Answering these questions will help team members decide whether and how to turn beyond the team to advance their progress toward the learning goals. We discuss this more in “Chapter 5: Learn individually and collaboratively.”

Putting learning teams to work

Many school and system leaders understand that learning teams or professional learning communities (PLCs) are valuable structures for ensuring that educators have time to learn in collaboration with colleagues. Some district leaders establish team time with a clear vision for exactly what the learning teams will do, including how they will use their time together and what results they are expected to achieve. Read the vignette on page 26 to see how a district superintendent in Ontario has grown to value and support collaborative, job-embedded team learning.

Other district leaders have been convinced that PLCs would be great, so they create schedules that allow teams to meet, but they lack a plan or vision for what those teams will do during that time. They trust that the professionals will know what to do with the time. Setting aside team time without a plan is a professional hazard. Districts go to a lot of trouble to rearrange schedules, engage with parents, and expend considerable energy with teachers and unions. If that time isn't well spent, everyone involved will label team learning a waste, and professional learning



Letting a bright light burn —
Leaders create conditions for learning

As I enter the third decade of my career, I reflect on what I believe are the conditions that contribute to educators' continuous professional development of the art and science of teaching and learning: contextual information and space, collaboration, and leadership. Early in my teaching career, I found that having accurate information about my students and being able to learn in my working environment kept my learning relevant. I also connected more deeply to my day-to-day practice. Trusting and learning-focused professional relationships with colleagues gave me the right amount of tension and support to let me take risks and deepen my learning and understanding. I also thought it was abundantly clear that leadership had the power to make or break a learning culture. It hardly matters how bright the light of a classroom teacher is; if leaders do not recognize and create the conditions to support continuous professional learning, they will extinguish that light.

In my role as superintendent, a pivotal point for me as a leader came when we created school-based learning time. I took the opportunity, with the leadership team, to listen to school faculties, educators, and formal leaders. In focus group interviews staff from a variety of positions throughout the organization stated clearly what they wanted time to collaborate, reflect, and examine their practice. Educators wanted to witness learning in action, not in a ballroom. They wanted to be closest to student learning, and they wanted to learn together. As a senior team, we became a responsive organization when we provided exactly what they said they needed. First, we directed a predominant amount of central office professional development

dollars proportionally to schools to determine the when, the how, and the why of professional learning time. We referred to this as school-based learning time. Then, with the allocation of that time, we attached some non-negotiables, one of which was that there would be a direct connection to the Board Improvement Plan for Achievement and the district strategic plan. As school-based learning time has become a regular practice in our system, we have analyzed qualitative and quantitative data to track its effectiveness. Literacy scores continue to improve in our elementary schools and our staff are better able to connect to the Board Improvement Plan as well as articulate what they do and why they do it.

For a district to be a learning organization, learning must occur at all levels of the organization. So, we piloted this structure for administrator learning during the last two years and are formally launching Administrator Learning Teams (ALT's) across the system. Again, the staff — in this case, teams of administrators — determine their own professional learning as instructional leaders. And once again at the central office, we set the conditions to support this professional learning team model. Administrators have time to learn during the school day with coverage to attend to operational school issues as well as resources to support their inquiry or problem of practice. School-based learning time let us leverage the key conditions supporting continuous professional learning so we could turn on that bright light of learning across the system.

*Clara Howitt, superintendent of education,
Greater Essex County District School Board
Windsor, Ontario*

will get another black mark (Bill & Melinda Gates Foundation, 2014).

Yet, teachers are eager for opportunities to learn with colleagues and consider collaborative learning among the most meaningful forms of professional learning they can experience. Leaders in schools and districts have a responsibility not only to give sufficient time for learning but also facilitate a plan for using that time well.

Ultimately, teachers, with the support of principals and coaches, will be doing a delicate balancing act between the time they have allocated to work together and the work they plan to complete during learning cycles to achieve their learning goals. They're already working in predetermined multiweek grading periods and they're making choices about which goals to prioritize so that they may advance their students as far as possible by year's end. The learning team cycle of continuous improvement guides teams so they use allocated time in ways that lead to changes in practice and student results. When the learning team focuses their work specifically on the curriculum and instructional materials in use in their classrooms, they are in a position to apply learning immediately in service of students.

References

American Society for Quality (ASQ). (n.d). Continuous improvement. Available at <http://asq.org/learn-about-quality/continuous-improvement/overview/overview.html>

Bill & Melinda Gates Foundation. (2014). *Teachers know best: Teachers' views on professional development*. Available at <http://k12education.gatesfoundation.org/wp-content/uploads/2015/04/Gates-PDMarketResearch-Dec5.pdf>

DuFour, R., DuFour, R., & Eaker, R. (2008). *Revisiting professional learning communities at work: New insights for improving schools*. Bloomington, IN: Solution Tree Press.

DuFour, R., DuFour, R., Eaker, R. & Many, T. (2010). *Learning by doing: A handbook for professional learning communities at work, Second edition*. Bloomington, IN: Solution Tree Press.

Hirsh, S. (2016). Michael Fullan affirms the power of collective efficacy. [Weblog]. Available at <https://learningforward.org/publications/blog/learning-forward-blog/2016/04/20/michael-fullan-affirms-the-power-of-collective-efficacy#>

Reflections

- We can describe the five-stage learning team cycle.
- We have ideas for how to enter the learning team cycle.
- We can describe some of our roles and responsibilities at different stages of the cycle.
- We can envision how to schedule learning cycles within the school year calendar.
- We can provide a rationale for using the learning team cycle to our colleagues.

Jolly, A. (2008). *Team to teach: A facilitator's guide for professional learning*. Oxford, OH: National Staff Development Council.

Lewis, C. (2014). Lesson study. In Lois Brown Easton (Ed.), *Powerful designs for professional learning, Third edition* (pp. 209–222). Oxford, OH: Learning Forward.

Michigan Department of Education. (n.d.). Instructional learning cycle overview: Continuous use of data to inform and differentiate instruction. Available at www.michigan.gov/documents/mde/ILC_Overview_415264_7.pdf

National School Reform Faculty. (2014, July). Cycle of inquiry for professional learning community activities. Available at www.nsrharmony.org/system/files/protocols/smp_cycle_inquiry_plc_0.pdf

Ross, J.A. & Bruce, C.D (2007). Teacher self-assessment: A mechanism for facilitating professional growth. *Teaching and Teacher Education*, 23(2), 146–159.

Sagor, R. (2000.) *Guiding school improvement with action research*. Alexandria, VA: ASCD.

Wellman, B. & Lipton, L. (2009). *Data-driven dialogue: A facilitator's guide to collaborative inquiry*. Sherman, CT: MiraVia, LLC. Available at https://www.miravia.com/pdf/DDD_study_guide_final.pdf

Tools index for chapter 2

Tool	Title	Use
2.1	Understanding the five stages	Use this tool to develop a general understanding of the stages of the learning team cycle.
2.2	Reviewing the learning team cycle	Use this tool as a reference throughout the five-stage team learning cycle.
2.3	Creating purposeful team roles	Use this tool to help define or clarify team member roles and responsibilities.
2.4	Scheduling a learning team cycle	Use this tool to schedule activities in each stage of a 12-week cycle.