

# Common Formative Assessment

SECOND EDITION

A TOOLKIT FOR PROFESSIONAL  
LEARNING COMMUNITIES AT WORK®

Kim Bailey & Chris Jakicic

*Foreword by Robert Eaker*

Solution Tree | Press



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—Kim Bailey and Chris Jakicic

Throughout my years as an educator, I've been blessed to learn from many along the way who graciously shared their expertise and supported my personal and professional growth. From masterful teachers to inspirational leaders, they shared pearls of wisdom that helped shape my passion for this work. At this point, I could open a necklace factory based on these gifts of knowledge. In particular, I'd like to thank Chris Jakicic—an individual who has become not only my collaborator in this work but also a close friend in the process. Thank you for showing me trust and patience as I worked through some crazy ideas, for always stretching my thinking, and for continuously focusing on excellence. Finally, I want to thank my entire family for their love, support, and patience throughout this project, especially my husband, Randy, who inspires me on a daily basis, and without whom any accomplishment would be meaningless.

—Kim Bailey

Learning about common formative assessments and how to make them work for students as well as teachers has been a journey for me. I started learning from the terrific teachers at Woodlawn Middle School in Long Grove, Illinois. My journey continued as I worked with hundreds of teachers across the United States, designing and using assessments to make a difference for the students in their schools. I thank them all for allowing

me to work beside them as we learned together how to make these practices work in real school settings. I've especially enjoyed debating and discussing "our passion" with my good friend and coauthor, Kim Bailey. In writing this second edition, we were able to revisit our first experience as coauthors and to see how far we've come in this journey. I know you'll appreciate, as I do, Kim's ability to display her ideas through a sketch that captures her thinking and makes the complex simple. You'll find lots of examples in this edition! Finally, I need to acknowledge my husband, John, who understands why I love doing this work and encourages me to continue my journey in this profession that is so satisfying.

—Chris Jakicic

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# About the Authors



**Kim Bailey** is a retired director of professional learning and instructional support for the Capistrano Unified School District in California. In Capistrano Unified, her work focused on supporting educators throughout the district's schools in their journey to becoming professional learning communities (PLCs). She also taught courses in educational leadership as an adjunct faculty member at Chapman University in Orange, California.

Kim is a coauthor of several books related to the processes inherent in the work of a Professional Learning Community at Work. As an author and consultant, Kim continues to focus on empowering schools, providing national training to support the development of effective leadership and empowered collaborative teams. Her writing focuses on strategies that guide teams to collaboratively align standards, assessments, and interventions and collectively raise student achievement.

Kim earned a bachelor of science and a master of science in education and special education from Northern Illinois University.

To learn more about Kim's work, visit [kbailey4learning](https://kbailey4learning.com) (<https://kbailey4learning.com>) or follow @Bailey4learning on Twitter.



**Chris Jakicic, EdD**, served as principal of Woodlawn Middle School in Long Grove, Illinois, from its opening day in 1999 through the spring of 2007. Under her leadership, the staff shifted toward a collaborative culture focused on learning and implemented assessment *for* learning practices to shape their instructional strategies. Student motivation and performance also increased. Chris began her career teaching middle school science before serving as principal of Willow Grove Elementary in Buffalo Grove, Illinois, for nine years. Her experience as a practitioner guides her work with schools; she wants teachers to feel confident that they have the skills and the ability to make a difference for their students.

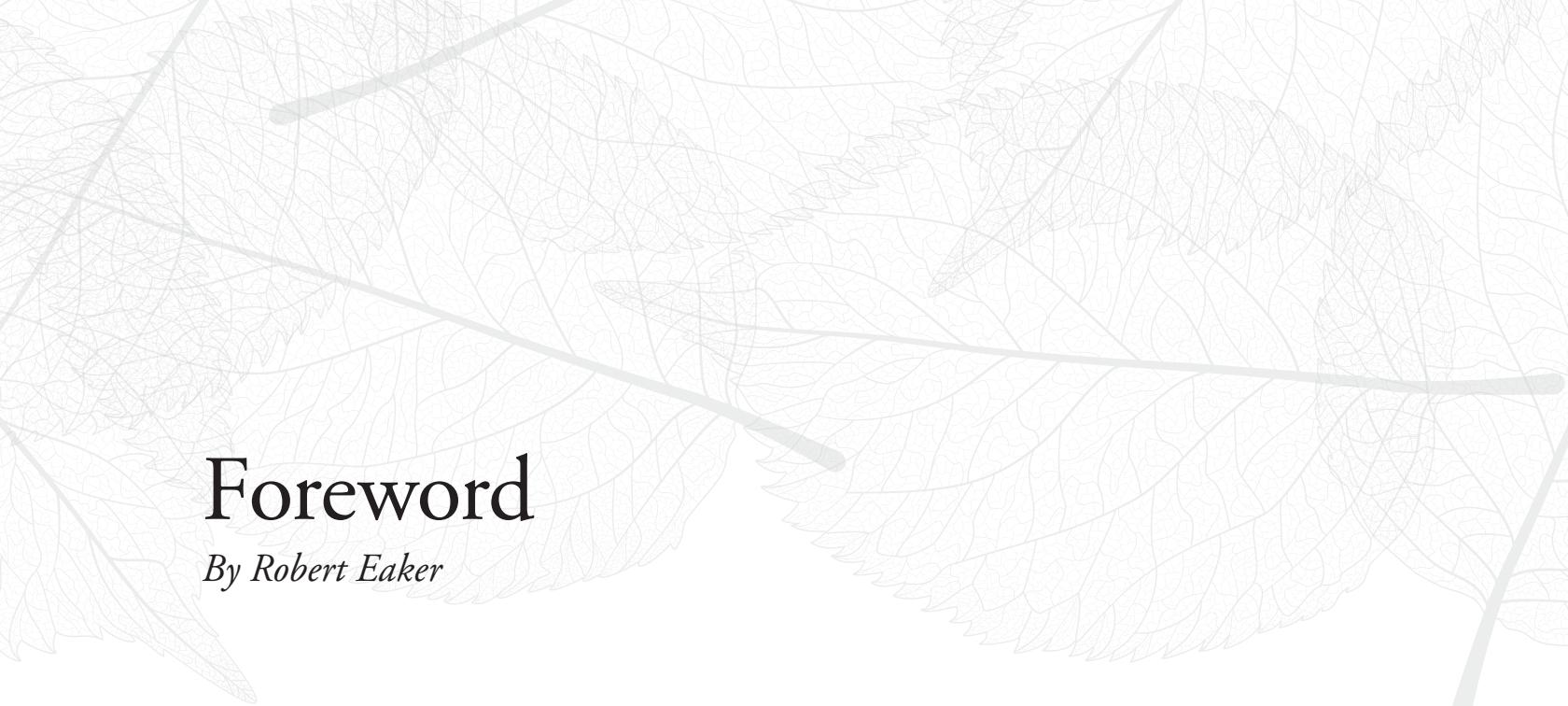
Through her work with teachers and administrators across the United States, Chris emphasizes that effective teaming is the heart of PLCs. She also shares practical

knowledge about how to use data conversations to interpret classroom information for effective instruction.

Chris has authored articles for the *Journal of Staff Development* and the *Illinois School Research and Development Journal* detailing her experiences with common assessments and PLCs. She has worked as an adjunct instructor at National Louis University as well as Loyola University Chicago, where she earned a doctor of education.

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# Foreword

By Robert Eaker

Growing up in the South, I enjoyed the pleasures of southern food, particularly my mother's cooking. As I got older and had my own family, I realized I needed to keep my mom's cooking secrets alive in my own family. I wanted to learn how she made such great cornbread and biscuits. I can distinctly remember standing in her kitchen as she taught me how she mixed the flour, shortening, and buttermilk in order to make perfect biscuits. Now, reflecting on my memories of being in the kitchen with my mom, I realize that not only was my mom a great cook but also an excellent teacher. She wasn't trained to be a teacher, but she was blessed with a huge dose of common sense.

Rather than simply *telling* me how to make tasty biscuits while I took mental notes, she got me actively engaged in my learning by having me attempt making my own biscuits while she gave me specific feedback and encouragement along the way. I can still hear her voice saying such things as, "You need to add a little more buttermilk, but be careful, it doesn't take much" and "You're rolling them out too thin; they might turn out too hard or be too crispy."

My mom did not wait until we were taking my biscuits from the oven to assess my efforts. Although she knew the final test of my efforts was the quality of the biscuits, she knew that the key to success was in assessing, providing specific feedback, and encouragement *during* the learning process, not merely at the *end*. Without knowing the educational vocabulary, she instinctively knew that while *both* formative and summative assessments were important, the key to successful teaching was in the *power of formative assessments*—providing feedback during the teaching and learning process.

My experience with learning how to do things wasn't limited to biscuits and cornbread. The process of receiving feedback and encouragement during the learning process has been the norm in my life, rather than the exception. I believe this is true for virtually everyone. How did I learn to ride a bike? Drive a car? I learned these skills through learning by doing, and, the thing that made the doing effective was formative feedback while I was engaged in the work.

Teachers understand the value of formative assessments. After all, they know that formative assessments played an important role in their own learning. The problem facing

teachers is this: How can I develop and use formative assessments in my classroom when I have perhaps twenty or even thirty or more students? Fortunately, Kim Bailey and Chris Jakicic, two successful practitioners themselves, have been providing research-based tools to educators for years that address such questions. Since the publication of the first edition of *Common Formative Assessment: A Toolkit for Professional Learning Communities at Work®* in 2012, Kim and Chris have provided strategies and tools for developing and using common formative assessment strategies for teachers and school leaders throughout North America and increasingly throughout the world. Not only are they excellent writers but they also provide stellar professional development and support to school districts, schools, and teachers.

Consistent themes run through Kim and Chris's work. First, their work is based on the assumption that assessment strategies are most effective in schools that have embedded the structures and processes reflective of a Professional Learning Communities at Work® (PLC) culture. Second, they believe that formative assessments—assessments *for* learning—are powerful tools for improving student learning, and an integral part of the PLC at Work process. Third, they believe the power of formative assessments is enhanced when they are collaboratively developed and used by teacher teams. They make a strong case for *how* and *why* to develop and *use* common formative assessments. And finally, they believe it is imperative that the development and use of common formative assessments be simplified. Readers will soon discover that Kim and Chris have the experience and insight to make the complex simple.

Since the publication of the first edition of *Common Formative Assessment* in 2012, educators have learned much about developing and using common formative assessments. This learning about how to develop and use common formative assessments has been a two-way street. Kim and Chris have learned a great deal also. Their knowledge base has grown greatly, and fortunately for educators, they share their new learning in this second edition.

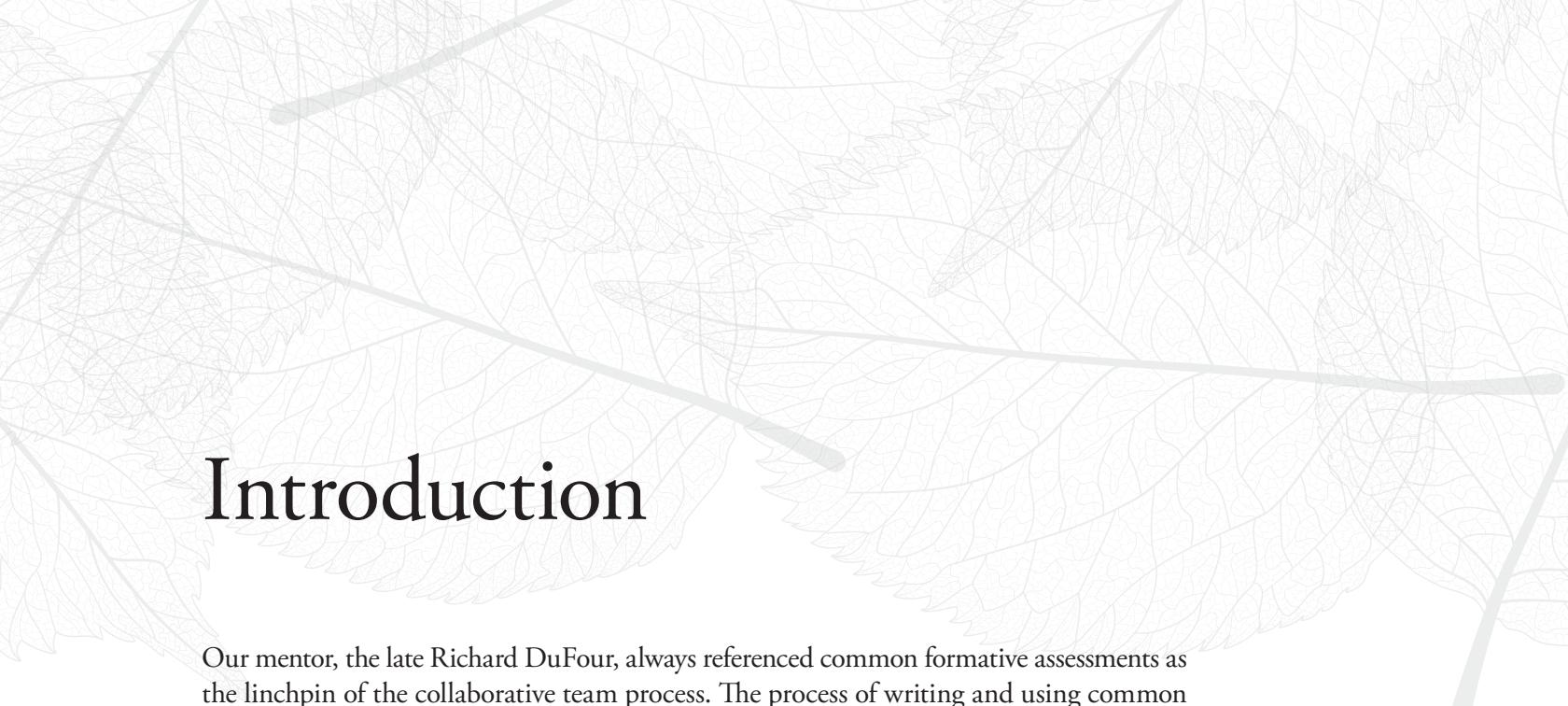
There is much to be learned from this second edition. The research is updated; there are new tools for teachers and teacher teams, as well as new templates, protocols, and examples. Kim and Chris go beyond suggestions for *balanced* assessment, providing strategies for creating a *comprehensive* assessment structure and processes for improving student success. They recognize and address the fact that creating a comprehensive assessment framework must include processes and strategies for singleton teachers—teachers who are the only ones teaching a particular grade or subject.

Since 2012, there has been increased attention paid to the issue of student self-efficacy by including students in the formative assessment process. Readers of this second edition will find specific information and examples for using assessments *with* students in order to help students play an integral role in their own self-assessment.

In short, there are many reasons for reading and using Kim and Chris's second edition of *Common Formative Assessment*. The most important reason for using this book is simply this: the strategies and tools the authors provide actually work. They have been classroom tested. This is a book by practitioners, for practitioners. I believe that

teachers—particularly those who are members of a high-performing PLC team—are constantly looking for research-based, doable ways to improve student learning. The research is clear—formative assessments are powerful tools for accomplishing this, and team-developed, common formative assessments have an even greater impact. This second edition of *Common Formative Assessment* answers the *why* and the *how* of using common formative assessments; the only question that remains for teachers is “Why not?”





# Introduction

Our mentor, the late Richard DuFour, always referenced common formative assessments as the linchpin of the collaborative team process. The process of writing and using common formative assessments serves as a catalyst for real change—real improvement in student achievement and adult learning. As constantly reinforced through our experiences, teams that codesign, use, and respond to common formative assessments become more knowledgeable about their standards, more assessment literate, and better able to develop strategies for helping all students learn. And when teams see the impact of their work on student learning, they experience collective teacher efficacy (Waack, 2015). They can see that they are making a difference by working together in support of student learning. Common formative assessments are the proverbial loop that allows teams to see what's working, what needs to be adjusted, and what impact this is all having on student learning.

When we wrote the first edition of *Common Formative Assessment* (Bailey & Jakicic, 2012), schools were facing some new challenges. Chief among them was the presence of new instructional standards, and teams were often struggling to understand the standards' intent. We designed our book to support teams in building collective clarity about the intent of the standards and identifying specific and common evidence they could collect that would indicate student proficiency. As we wrote this second edition, schools were facing a different set of challenges. We were in the second year of the COVID-19 pandemic, and teachers had to pivot from in-person to online instruction and back again. Student learning was at risk because of this context.

Additionally, we have worked with schools configured in various ways: small schools, large schools, schools in school-improvement programs, high-achieving schools, schools with large populations of students in poverty, urban schools, suburban schools, and rural schools. To support these variations, we are including strategies to guide schools that are doing the work using nontraditional collaborative teams, such as singleton teams or vertical teams.

We've also learned that regardless of the configuration, each school we've worked with is unique; however, there are common issues they all face. For example, we've *never* heard from teachers that they have too much time to teach, or that they need more standards for their students. We've *never* heard teachers say that their students bring with them all the academic and social behaviors they need to learn at high levels. And we've *never* heard teachers reflect that their job is easy to accomplish. Yet teachers we've worked with want to

know what they can do to help their students learn at higher levels. In this book, our goal is to share what we've learned about creating and using common formative assessments in all situations. But more than that, our goal is to share ways to effectively use this process knowing the constraints placed on collaborative teams in real schools: limited collaborative time, too many standards to teach, new team members, resistant team members, and what seems like not enough time with students to make a significant difference.

## The *Right* Culture

Many schools begin their professional learning community (PLC) journey by evaluating their current school culture and working to embrace a culture where all students can learn at high levels. Schools must also consider their specific culture or mindset around assessment. In our view, student self-efficacy is the pinnacle of best practice in using assessment to guide learning. When collaborative teams use assessment *with* students, rather than do it *to* students, they change the use of assessment from traditional grades to feedback. Data become feedback to teachers as well as to students and drive the next steps for both. This use of assessment includes identifying best practices for instruction and identifying which students need something different in order to be successful. When students and teachers both look at formative data as information that can lead to more learning, it's assessment that's worth doing.

Although we share that there is no one right way to write and use common formative assessments, most teams still seek a practical resource to guide them in their journey. They want templates and protocols they can use while they build proficiency and become more confident in this work. So we decided to create a toolkit of ideas, templates, and protocols that teams can use as a launchpad into this work. We need teams to understand that these are only "jump-start resources"; in the end, teams will likely create better products for their own work than the products we've included here. Your team should modify and improve the templates we provide and make them your own.

As such, this resource can be used by teams at various levels of implementing the assessment process. Teams that are just beginning the process of building common formative assessments can move through all the chapters in order to become proficient in the entire process. Teams that are further along on their journey can reference and use each chapter independently.

When writing this book, we focused on making it practitioner friendly, but we also made sure the strategies and recommendations we provide are grounded in research and best practices. To that end, we cite both formal research and information from individuals who are experts in the field.

## The Chapters in This Book

This book's nine chapters each focus on one part of the assessment process. Chapter 1 is a primer on the PLC journey. It provides an overview and explanation of the place of common formative assessment in the work of teams, and the framework that teams might follow to become truly collaborative. Chapter 2 describes the nature of a comprehensive

assessment system within schools or districts, and the roles that different types of assessments serve in support of student learning and continuous improvement. The chapter also covers how to design an assessment system to ensure that teachers use both formative and summative assessment data in the best ways possible. In chapter 3, we communicate the foundational work of identifying and using essential standards as the beginning point for common formative assessments.

Chapter 4 explains the important first step in assessment design. It guides teams through the process of unwrapping their essential standards to reveal clear learning targets of instruction—the targets that they will not only teach but also assess formatively. These targeted and monitored skills, strategies, and concepts will guide teams to know what to do next with students who need more help. Chapter 5 explores further strategies of assessment design. What kinds of assessments make good formative assessments, and how do teams write those assessments so that the data are the right information to help them know what to do next for their students? Chapter 6 provides a deeper look at how teams use backward planning to create units that embed quality common formative assessments. Also, it shares additional strategies for understanding how to use targeted proficiency expectations to develop assessments and rubrics.

Chapter 7 looks at how teams use the data they gather to know specifically how to help those students who are experiencing difficulty, and how to identify students who have already learned the material and can benefit from extended instruction. Because we know that students benefit when included in the assessment process, chapter 8 explores practices that teams can use to foster students' involvement in and ownership of their learning. Finally, chapter 9 provides readers with practical suggestions to support the process of designing and using common assessments.

The need for clarity about student learning priorities has never been more relevant. The need to check on students' learning is vital. The changes made in this second edition not only reflect the learning we have experienced since 2012, but also embed additional considerations related to essential standards, student ownership and engagement in the assessment process, and a focus on making the process doable for teams.

As you begin this important work, we hope you feel confident that common formative assessment will make a difference for your students. By focusing on student learning, and by using this process, your own learning will increase. We *know* that this is the right work. The research is compelling, and the results are impressive! Be willing to try the process knowing that everything won't be perfect the first time. *Doing* will lead to *learning*.



## CHAPTER 1

# Getting Started as a Collaborative Team



- Collaborative teams are the engine of professional learning communities.
- The focus during collaborative meetings must be on student learning.
- Effective teams are clear on their purpose, and they follow key processes that enhance their ability to work efficiently.
- Effective teams are focused on results in student learning.

Because you're reading this book, there's a good chance you and your team are familiar with the Professional Learning Communities at Work (PLCs at Work) process put forth by Richard DuFour, Robert Eaker, and Rebecca DuFour. However, in case you are not, we will begin by reviewing the big ideas related to PLCs and what it takes to function in effective collaborative teams. We'll discuss the elements of PLCs, as well as some critical strategies and processes that your collaborative team will rely on while building its effectiveness. This review will clarify the big picture of PLCs, build new knowledge, explore the types of strategies that will help prepare teams for the work of designing and using common formative assessments, and simply provide some good reminders of what effective teams do. You can explore much of the information within this chapter in greater detail in publications such as *Revisiting Professional Learning Communities at Work: Proven Insights for Sustained, Substantive School Improvement, Second Edition* (DuFour, DuFour, Eaker, Mattos, & Muhammad, 2021); *Learning by Doing: A Handbook for Professional Learning Communities at Work, Third Edition* (DuFour, DuFour, Eaker, Many, & Mattos, 2016); *Raising the Bar and Closing the Gap: Whatever It Takes* (DuFour, DuFour, Eaker, & Karhanek, 2010); and *The Collaborative Teacher: Working Together as a Professional Learning Community* (Erkens et al., 2008). These resources have captured the essence of what it means to work as a PLC and can assist schools and districts as they dig into this important work.

## The Big Ideas of a Professional Learning Community

A professional learning community is not a program, a fad, or a meeting. A PLC is a way of doing business in schools—and that business is learning. PLCs work with that end in mind. As defined by Richard DuFour, Rebecca DuFour, Robert Eaker, Thomas W. Many,

and Mike Mattos (2016), a PLC is “an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve” (p. 10). PLCs, they continue, “operate under the assumption that the key to improved learning for students is continuous job-embedded learning for educators” (DuFour et al., 2016, p. 10).

The term *professional learning community* describes a process employed by tens of thousands of schools and districts—not just across North America but around the world. PLCs are based on the beliefs and practices of highly effective organizations and schools (Newmann & Wehlage, 1995; Senge, 1990, 2006) and characterized by three big ideas that guide their work (DuFour et al., 2016; DuFour & Eaker, 1998).

1. **A focus on learning:** Schools that operate as PLCs have a constant eye on learning and will stop at nothing to ensure high levels of learning for all students. This commitment is shared by all members of the learning community and assumes that everyone will work together to examine and change instructional practices to make sure all students learn at high levels. Rather than view their role as serving only those students who are in their classroom, teachers assume collective responsibility for the learning of all students. As a result of this collective responsibility, the pathway for attaining high levels of learning is achieved not through random acts of improvement implemented in isolation by individual teachers, but rather through systematic improvements that enhance the learning of all students.
2. **A culture of collaboration:** In a PLC, there is a collective commitment to *all students* in the school. The traditional line that divides “your students” from “mine” evaporates into a culture of “our students.” Teams are responsible for the learning of all students, and in order to get there, everyone’s efforts point in the same direction. To that end, it’s impossible for teachers working in isolation to ensure high levels of learning for all students. It’s clear that the task is too great, and few, if any, teachers are equipped with all the knowledge or the energy to make it happen on their own. In a PLC, teacher teams collaborate to define what students need to know and do, monitor their learning, and respond systematically when students aren’t learning essential concepts and skills. Working interdependently, teachers share their best instructional practices so that all students can benefit. Consequently, students receive a *guaranteed and viable curriculum*, one that’s clearly defined and consistently delivered regardless of what teacher they have (Marzano, 2003). Student learning is the focus of an entire team, and the team reaps the expertise of all its members in a systematic fashion.
3. **A focus on results:** In a PLC, there is a significant shift from a focus on *teaching* to a focus on *learning*. Merely discussing strategies or sharing best practices isn’t enough. PLCs focus on the collective impact their professional practice has on student learning, and that impact is measured along the way by collecting and responding to meaningful data. DuFour (2004) says it best when he states that the mission “is not simply to ensure that students

are taught but to ensure that they learn” (p. 6). The all-too-familiar phrase, “I taught it, they just didn’t learn it,” is the antithesis of PLCs. In PLCs, the focus is on what students have learned—not what teachers have taught. This constant focus on results in student learning is the impetus for developing and using common formative assessments, as well as any subsequent interventions that provide students with additional time and support.

## The Role of Teams in a PLC

According to DuFour and Eaker (1998), the engine behind school improvement in a professional learning community is the team—grade-level teams, departmental teams, and cross-departmental teams. The actions of these teams are guided by the following four critical questions:

1. What knowledge, skills, and dispositions should every student acquire as a result of this unit, this course, or this grade level?
2. How will we know when each student has acquired the essential knowledge and skills?
3. How will we respond when some students do not learn?
4. How will we extend the learning for students who are already proficient?

(DuFour et al., 2016, p. 36)

Simply put, the power of improvement lies within the team—“a group of people working interdependently *to achieve a common goal* for which members are held mutually accountable” (DuFour et al., 2016, p. 91). The goal is to improve student learning, and teams commit to examining and adjusting their practices so that all students walk away knowing and being able to do the things that are considered essential. The focus on a common goal is what differentiates a truly collaborative team within a PLC from a more traditional grade-level or course team. The ultimate focus of a collaborative team working within a PLC is placed squarely and consistently on student learning, not merely on the adult behaviors or the products they create. Effective teams have established a culture and a structure that enable them to do the work of clarifying their curriculum, identifying measures that monitor their students’ learning, intervening to ensure students get needed additional time and support, and differentiating their instruction so all students, no matter where they are, learn at high levels.

John Hattie (2009, 2012), through his meta-analytic research, examines numerous instructional practices. He concludes the teacher practice that yields the best student learning improvements is indeed working in collaborative teams to clarify what students must learn, gather evidence of learning, and analyze that evidence to identify the most powerful teaching strategy (Hattie, 2009, 2012). In the book *The Turning Point for the Teaching Profession: Growing Expertise and Evaluative Thinking* coauthors Field Richards, Hattie, and Catherine Reid (2021) discuss both the importance of quality teachers and the idea of scaling up quality by having teachers work in collaborative teams:

Scaling up success requires collaboration. The transformation of teaching into a high-esteem profession involves a school workforce that is structured around collaborative teaching teams. These collaborative teams seem a necessary condition for an effective profession. . . . The focus of

this collaboration applies not only to curriculum and assessment planning but involves consideration of what are reasonable and high expectations, and what are the various notions of impact. Collaboration involves ensuring excellent classroom practice is implemented with fidelity and working together to evaluate the impact of teaching on student learning. (p. 11)

Hattie furthers this thinking when he includes *collective teacher efficacy* as the second-highest influencer in his visible learning research, with this term defined as the “collective perception that teachers in a given school make an educational difference to their students over and above the educational impact of their homes and communities” (as cited in Tschannen-Moran & Barr, 2004, p. 189). Getting this powerful continuous improvement model in place requires both structural adjustments and cultural shifts.

### What about singletons?

*Singletons* are those teachers in a school who are the only ones that teach a specific grade or subject. Many schools have singletons, whether that’s because the schools are small or because only one teacher is teaching a unique course. Regardless, singletons must work on a team that makes sense and will allow them to collaborate on student learning in a meaningful way. When singletons are grouped together as “leftovers,” they often resist the collaborative process because they don’t see any benefits to them or their students. Instead, leaders should exercise careful thought, and gain teacher input, in deciding how best to group these teachers. When the leaders think about this work, it becomes apparent that the more team members have in common with each other, the more meaningful the partnership.

DuFour and colleagues (2016) suggest several different ways singleton team members might be arranged to be most effective: vertical teams, interdisciplinary teams, and electronic teams.

### **Vertical Teams**

*Vertical teams* are made up of teachers who teach common content at different levels. Many small elementary schools group singleton teachers into grades K–2 and 3–5 teams. While they don’t have the same content standards, they do have similar ones. For example, each grade level has a standard for identifying the main idea and details in an informational text. The team members can discuss how to teach and assess their grade level’s version of this standard in a meaningful way.

In a small secondary school, the vertical team might be grades 6–8 science teachers or the mathematics department. Again, while the teachers don’t teach the same standards, they do teach similar standards. Team members can do meaningful work around the science processes, the mathematical practices, and the inquiry arc in social studies. Take a grades 6–8 science team, the three members of which explore the idea of using models in their instruction and assessment. While one teacher might be teaching a life science standard and another a physical science standard, their expectations for modeling remain the same. Even if only two of the three teachers in this example are working with a standard that requires modeling, the third teacher can still learn from the other two. This leads us to something we’ve learned in our work: on a singleton team, not all teachers

have to teach a common concept and participate in each common assessment. However, their overall goal must be to learn together about the work.

### ***Interdisciplinary Teams***

Another arrangement that has proven effective for singletons is *interdisciplinary teams*. When a group of teachers share a group of students (rather than the same or similar standards), they can focus on the content that crosses multiple subjects. The easiest example is to use English language arts (ELA) standards in ELA, science and technical subjects, and history and social studies. While the ELA teacher is teaching students how to read an argument, the science and social studies teachers are using written arguments in their own curriculum. When these interdisciplinary team members see the power of teaching reading and writing in their content areas, they see value in their collaborative team. Once these team members successfully use the ELA standards, they will begin to find other similar content. For example, functions in mathematics can overlap science concepts, and reading charts and graphs can connect mathematics, science, and social studies.

### ***Electronic Teams***

*Electronic teams* are composed of teachers from different schools who teach the same content. For example, art teachers from multiple middle schools can work together via an online platform, such as Zoom. Their work is often identical to that of collaborative teams whose members come from the same school except that electronic team members are sharing products online and having discussions through electronic software. For these teams, it's important that the master schedules of their schools provide common planning time.

## **The Important Work of the Leadership Team**

Unlike a school that operates as a traditional school, a school that operates as a PLC emphasizes shared leadership. DuFour and colleagues (2016) write that “no one person will have the energy, expertise, and influence to lead a complex change process until it becomes anchored in the organization’s culture without first gaining the support of key staff members” (p. 27). They call for a leadership team to be formed so that information can flow both up and down in the school organization. Decisions are made through a *loose-tight culture*. That is, the school is tight about certain things that teams must do and loose about how teams might do them. For example, the school is tight about requiring teams to write and use common formative assessments to provide evidence of student learning. It is loose about decisions related to frequency, length, item type, and other design elements.

The leadership team is responsible for monitoring the products of collaboration and providing support to teams experiencing difficulties. In the area of assessment, for example, team leaders may each bring a sample *common formative assessment* to a meeting to share with other leaders. Collaborative teams develop these assessments for essential learnings, and these assessments represent the important work of teams that are this book’s focus. During the meeting, the team leaders discuss these assessments, working together to learn more about successful assessment strategies. Through this process, they might encounter information that shows teams need additional training and support. The

leadership team members will decide how and when to provide this professional learning as well as who is best suited to provide it.

## The Nuts and Bolts of Working as a Team

Before you and your team can move forward with the work of creating and implementing common formative assessments, there are some foundational structures and processes to establish: time for collaboration, purpose and commitment, and the PLC process. Let's examine these key factors.

### *Time to Collaborate*

The first, and perhaps most obvious, factor is that your team must have time to collaborate on a frequent basis. The work of developing common assessments is not something that can be accomplished simply by meeting as a team once each quarter or even once a month. To build clarity and consistency across classrooms so that all students learn at high levels, team members need to meet with high regularity. Rather than collaborating periodically during isolated events, teams need to establish a workflow that connects their actions from meeting to meeting, with little time between.

Schools of all sizes and grade levels have identified a number of ways to find time during the instructional day so that teachers are empowered to collaborate. These include restructuring their instructional day, locating common prep periods, conducting late-start or early-out schedules, and establishing periods of the week or day during which teacher teams can capture collaborative time. Additional ideas for finding time appear on the AllThingsPLC website ([www.allthingsplc.info](http://www.allthingsplc.info)), a tremendous online resource that contains articles, blogs, and recommendations from people in the field who are successfully implementing the PLC process. There are suggestions that apply to many types of teams, including grade-alike and course-alike teams, departmental teams (teaching similar content, but not necessarily the same course), and electronic teams.

### *Clarity of Purpose and Commitment*

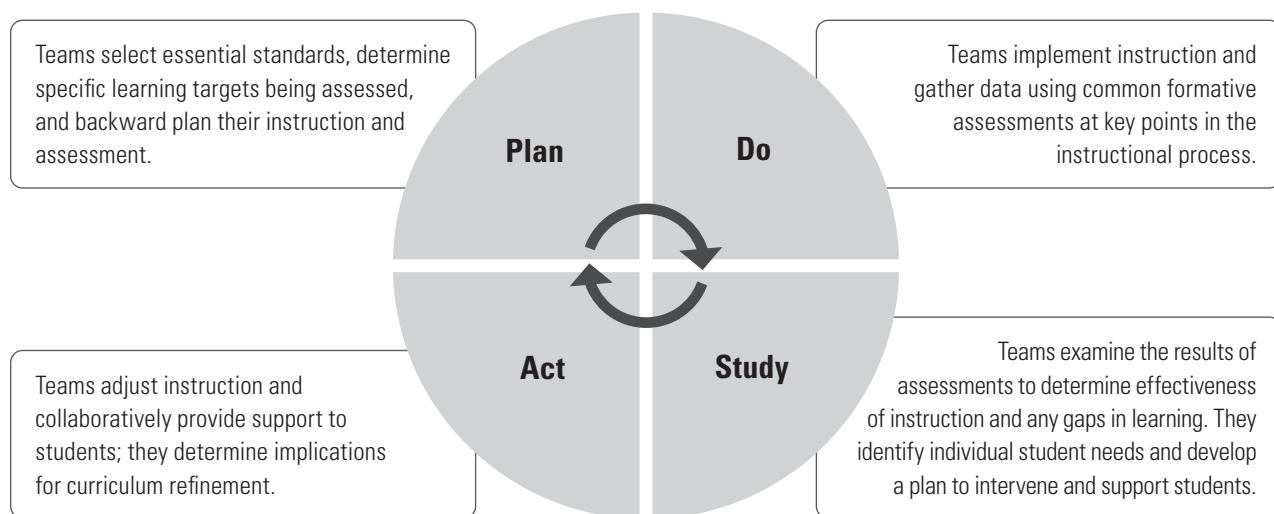
Once teams have been defined and have established a structure for meeting frequently, it's critical to affirm their *mission*—their fundamental purpose. In a PLC, that mission is to improve student learning, and all members have a clear and collective understanding of the work to be done. There is not merely an individual commitment from each member of the team, but a team commitment for members to hold themselves accountable to that purpose. While your school may have worked through the process of clarifying its mission, vision, values, and goals, you need to purposefully transfer the conversation to the team level. We highly recommend taking the time to collectively answer these questions: Why do we exist as a collaborative team? and What commitments do we make to accomplish this work? The answers will help define and focus your team's mission and unite members by establishing a formal commitment to place student learning at the core of all the team does. If your team hasn't extended that same clarity to its work, it risks getting off track or veering off on a nonproductive tangent that's not focused on student learning.

A clear mission or purpose helps guide team actions and the focus of every member. As a lighthouse guides ships through the fog, the clear purpose of working to improve student learning illuminates the intended course of teamwork. From time to time, teams may experience conversations that are challenging or processes that are unclear. Having that lighthouse that every member of the team can point to during those foggy times can keep the team on a meaningful path. In practice, some mature teams have set the expectation that their time will focus on student learning. They hold themselves to this expectation by bringing evidence of student learning (such as assessment results or student work) to every meeting. They have a clear agreement about what they must accomplish and hold each other accountable to stay the course toward that mission.

### ***A Clear Picture of the Process***

As schools embrace the journey of a PLC, they must consider a few specific ideas in the definition of a PLC that will change their more traditional practices. The definition starts by reminding practitioners that this is an ongoing process. Many schools are used to changing their focus year after year, pursuing the next new “best practice.” The PLC process is intended to change the ways schools and teams work together for now as well as the future. It becomes the overarching model for continuous improvement. Additionally, the definition lays out the fact that teams work in recurring cycles of collective inquiry and action research. While this phrasing may seem casual to the novice reader, it has a significant impact in its implementation.

Teams at the start of their journey often wonder how best to establish agenda items that will produce meaningful work. Effective teams in PLCs understand that inherent in the collaborative process is a cycle of collective inquiry, sometimes referred to as the *plan-do-study-act (PDSA)* model (The Deming Institute, n.d.). This cycle embeds the use of data and reflective practices throughout teams’ work. Figure 1.1 provides a graphic representation of the process.



*Source: Adapted from Bailey & Jakicic, 2017, 2019.*

**Figure 1.1: Plan-do-study-act cycle.**

Consider how the PDSA cycle might be used by a team just starting a new unit of instruction.

- **Plan:** Unit by unit, use a backward-planning process to collaboratively decide what students will learn (essential standards), agree on what proficiency looks like for those standards, identify when and how the team members will gather evidence of student learning through common formative assessments, and allocate time for the team to respond when students haven't yet learned essential standards. Additionally, based on their collective prior knowledge, team members may identify specific practices they will collectively use to increase the likelihood of getting more students proficient. After establishing a SMART goal (one that is strategic and specific, measurable, attainable, results oriented, and time bound; Conzemius & O'Neill, 2014), they discuss potential common formative assessment items and establish a timeline for their implementation. In essence, the team is answering critical questions 1 and 2: What do we want students to know and be able to do? and How will we know they have learned it?
- **Do:** Execute the plan. The team implements the instructional plan and gathers data along the way through common formative assessments—assessments collaboratively created by a team of teachers from the same grade level or course.
- **Study:** Study the results. Collectively, the team examines the results of the common formative assessments and identifies emerging patterns, including common student errors and differences in results between classrooms. The team members also discuss any strategies employed and specifically identify who needs additional time and support. Critical questions 3 and 4 guide the conversations and planning in this phase: How will we respond when students don't learn it? and How will we respond when they already know it?
- **Act:** Take action. Armed with this new information, the team moves forward with brief but powerful interventions that provide additional time and support for those students who did not attain the targeted skills and concepts. Additionally, the team members might include in their teaching repertoire any successful strategies that they discovered when analyzing data with their colleagues.

Through this process, teams engage in *collective inquiry* as they learn together and get clear about what their standards mean, what proficiency looks like, and how they will gather evidence of student learning. In addition, they engage in meaningful *action research* by targeting areas of learning in which students are struggling and by seeking better solutions to close the gaps. Both terms embrace the notion that teams must be willing to try new ideas and practices in an effort to help more students reach proficiency and beyond on the essential standards. Teams must *learn together* about these new practices and must collect evidence of their impact on student learning. For instance, a fourth-grade team might notice that its students struggle to use mathematics vocabulary when reading word problems or explaining their solutions. During the planning phase, the team members identify the specific academic language and vocabulary pertinent to that unit, design their assessments to gather evidence of vocabulary usage, and then purposefully target instructional time to engage students in mathematics dialogue. During their

analysis of assessment results (studying phase), they examine the impact of this strategy to ensure that it made a difference in student learning.

We've seen many teams make the mistake of using existing teacher guides, curriculum maps, or predesigned unit plans without truly examining and getting clear about the essential standards being addressed, the evidence along the way that will lead to a shared picture of proficiency, and their responses for students who need more time and support. Empowered with the PDSA framework, and a mindset of collective inquiry and action research, teams shift from traditional lesson planning to what we like to call *learning planning*.

## Norms for Working Together

Team *norms* are agreed-on day-to-day behaviors that the team will follow in order to work purposefully and productively. Norms define *how* each member of the team will function or act within the context of collaboration (DuFour et al., 2016). Why is this important? Let's first think about what effective teams look like. Members of effective teams are able to navigate through a number of issues and remain professional and open to the input of their colleagues. They are respectful of differing opinions, and they work to build consensus, rather than overpowering opposing views. This does not happen without specifically defining *norms*—the way that every team member commits to doing business with other members of the team. Here are some examples of norms for collaborative teams.

- We will arrive ready and prepared to focus on our agenda.
- We will all contribute to the collective learning of our students.
- We will focus on student learning during our meetings and use our collaborative time efficiently.
- We will listen to others' opinions respectfully and will use a consensus process.
- We will base our decisions on data.
- We will not blame the students.

Norms serve as an important vehicle to support the cultural shifts from a school in which teachers work in isolation, making all instructional decisions independently, to one in which teams work collaboratively and interdependently for all students' benefit. In this collaborative culture, teachers must put aside their personal preferences and assumptions for the good of the whole team.

An important idea we've learned by working with teams across the United States is that norms belong to team members, and team members must be willing to "care enough to confront" (Kanold, 2011, p. 108) their colleagues who violate a norm. When collaborative team members recognize the importance of their time together, they pay attention to those situations and people that are getting in the way of using that time effectively. To ensure this happens, teams should discuss, while they are creating their norms, how they will handle a member's violation of a norm. This action doesn't have to be—and shouldn't have to be—confrontational. Rather, the team can share a quick reminder of

the norm and pivot back to the task at hand. By planning for this eventuality, the team will make the response easier to use. For instance, we have worked with teams that keep a stuffed squirrel toy (a reference to distractions in the Pixar movie *Up*) on their team table, and when sidebar or off-topic conversations take place, members have permission to pick up the squirrel to redirect the team.

Figure 1.2 is a protocol for establishing team norms that we adapted from information in *Learning by Doing* (DuFour et al., 2016). Team leaders or coaches can facilitate this protocol during a typical team meeting. See page 136 in the appendix for a reproducible version of this protocol.

Step	Action
1	Make sure the team members understand why they are writing these norms and how they will use the norms to make their collaborative practices more effective. Remind the members of the areas they might want to consider as they are writing their own norms: decision making, participation, time management, response to conflict, and confidentiality.
2	Ask team members to each reflect on unsuccessful teams they've been on before or observed in their work. What negative behaviors prevented the teams from functioning at high levels? Members should write these behaviors down, each on a separate sticky note. Make sure teachers do this step individually without discussion.
3	Collect and review all the sticky notes. Ask for clarification if needed, and cluster any similar behaviors together.
4	Ask team members to consider successful teams they've been part of. What positive behaviors did these teams engage in? Again, have members write these behaviors on sticky notes. These sticky notes should be a different color than the sticky notes in step 2.
5	After collecting the sticky notes from each member, cluster together any that are similar, and seek clarification on those that are ambiguous. Take some time to link the positive behaviors to the negative behaviors that they would diminish if implemented. If a negative behavior doesn't have a corresponding positive one, the team should discuss and develop a positive action to diminish the negative behavior.
6	Initiate an open discussion about which of the positive behaviors the team members want to include on their final list.
7	If there is disagreement, allow time for discussion about how the norm would help the team in its work. After the norm has been thoroughly discussed, use a <i>fist-to-five</i> strategy (page 16) to see where the team is on consensus for that norm.
8	Next, the team members need to agree on how they will handle situations when a team member violates an agreed-on norm. Suggest that they have to be willing to take responsibility for the way the team works together and that they must "care enough to confront."
9	Capture the final set of norms in writing, and "publish" them for use at all team meetings. Start each meeting with a review of the norms, and plan to revisit them twice a year.

Source: Adapted from DuFour et al., 2016.

**Figure 1.2: Protocol for identifying norms.**

## Consensus-Building Strategies

When teachers work together with their colleagues, they create both positive energy and challenging moments. Teams are often faced with difficult conversations and differences of opinion. For example, when determining the best way to assess essential learnings, some team members may express very clear preferences that are at odds with those

expressed by others. To harness that energy and direct it in a positive fashion, teams must employ a respectful decision-making process known as *consensus* that keeps the basic tenets of effective collaboration in effect. DuFour and colleagues' (2016) definition of *consensus* captures the essence of this powerful process. They say that consensus meets two criteria:

1. All points of view have not merely been heard, but have been actively solicited.
2. The will of the group is evident even to those who most oppose it.  
(DuFour et al., 2016, p. 32)

The consensus process is designed to identify solutions, but in a way that brings out critical information about each potential option being explored and weighs the options in an objective fashion. The process yields the best solution that's available to the team at that moment in time and is not based on meeting halfway or voting. The steps to building consensus include the following.

1. Build shared knowledge (of the issue).
2. Define the problem, and determine any criteria that a solution would need to meet in order to be considered acceptable. (For example, the solution can't increase costs, or must be accomplishable during the instructional day.)
3. Participate in guided brainstorming or input on solutions.
4. Prune the solutions.
5. Identify a solution that meets acceptability criteria.
6. Establish final consensus.

When teams are working to reach consensus, it's important to assign various roles in support of the process. A crucial role is that of the facilitator. Facilitators are the emcees of the process and help their teams move through the steps and adhere to the agreed-on course of action. They will also make adjustments as needed, such as pausing to restate what has already been agreed on or repeating the focus question. It's also helpful to have a recorder, a timekeeper, and someone to monitor the norms.

Consider this scenario: A grade-level team is trying to decide how best to move forward with the results of its common formative assessments. The members all have different opinions about how best to provide interventions based on the results. For example, one teacher thinks that each member should serve one's own students, while another thinks students might be clustered and divided across that grade level's four classrooms, with each teacher serving a group of students based on need. Rather than spinning off in various directions or raising angst about whose idea is better, the team follows the steps to building consensus.

First, the team affirms its purpose of providing additional time and support to students who are struggling (step one). After examining the potential numbers of students who will need this support, the team generates criteria for the acceptability of potential solutions (step two). One criterion supports the concept that the solution will enable team members to work efficiently without duplicating efforts. The team also agrees that interventions cannot create a situation in which students lose access to core instruction.

**Fist to five** is a quick strategy that various organizations use to check a group's agreement with a proposed solution or concept (DuFour et al., 2016). No equipment or materials are needed. Here's how it works: after stating a proposal, the facilitator asks individuals to react to the proposal by raising the number of fingers that correspond to their position.

**Five fingers:**

"I'm all for the idea.  
I can be a leader."

**Four fingers:**

"I'm for the idea.  
I can provide support."

**Three fingers:**

"I'm not sure, but I am willing to trust the group's opinion."

**Two fingers:**

"I'm not sure. I need more discussion."

**One finger:**

"I can't support it at this time. I need more information."

**Zero fingers (fist):**

"No. I need an alternative that I can support."

The team members then generate potential solutions for providing corrective instruction to their students (step three). During this time, the individuals proposing the solutions have the opportunity to clarify and answer questions from team members. During this time, however, members are not allowed to *evaluate* solutions. After they exhaust all their ideas, the team members weigh each solution against the criteria for acceptability (steps four and five). The solution that the team decides meets the criteria most effectively is a hybrid solution: teachers will swap students twice weekly to receive differentiated instruction, including interventions, based on their common assessment results. To reach their final consensus (step six), the team members use a fist-to-five strategy (see the text at left for more details) to determine the level of comfort and commitment to implement the solution. In the end, they feel that their ideas are heard and that the best decision is made for supporting student needs.

When viewing a room of raised hands, it's important to "read the room" and get a sense of where the group lies in terms of accepting a proposal. You might see much agreement, or you might see much variation in the number of fingers raised. Whoever is facilitating the conversation should acknowledge the level of agreement and make general statements such as, "It appears that most of the people here are willing to support this idea," if most hands are showing fours and fives. If a significant number of individuals are showing two or fewer fingers, there may need to be more discussion to understand the concerns.

Remember, however, the definition of consensus is *not* that everybody agrees. Rather, you have reached consensus when the *will of the group* is clearly evident, even to those who individually oppose it, and regardless of their opinion, they agree to move forward with the decision and not sabotage the implementation. This is not to suggest, however, that all decisions need to be made using a consensus strategy. Because of the time it takes to come to consensus, only substantive decisions that may lead to disagreement need to go through the consensus process. You may make routine decisions more easily through discussion or even an informal voting process.

## Protocols and Processes for Doing the Work

It should be evident a major premise in PLCs is that collaborative conversations take place to codesign instruction and assessment and analyze and act on results in student learning. Given this, teams must be comfortable and fluent in having these collaborative conversations efficiently and working with data collectively. To that end, teams greatly benefit from using protocols to guide these collaborative conversations. A *protocol* is simply an outline of steps and guidelines that helps teams

structure productive conversations about such things as looking at student work, analyzing assessment results, or designing a unit plan. There are several protocols available for teams' use, and many teams create their own. We highly recommend that teams take advantage of these to facilitate conversations throughout the process of looking at data and also discussing instructional practices and calibrating the scoring of student work. A number of protocols are referenced and included in this book to assist teams as they learn effective processes to collectively support student learning.

## Development of Purposeful Products

Effective teams have some things to show for their collaborative time, and those products are purposeful. The products they create vary based on the current goals of the team, but may include such items as listings of identified essential standards, pacing guides, standards-aligned units, and products in support of common formative assessments, such as scoring rubrics. Not only do these products provide evidence of the team's collaboration, but they also build momentum within the team in that they are meaningful and focused on student learning.

## Where to Start

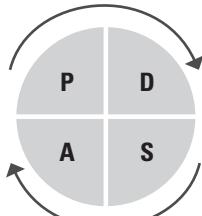
Your team's goal is to hit the ground running and develop meaningful products that empower you toward continuous improvement in student learning. Following are strategies that help your team do just that. The overarching goal of all these strategies—prepare for efficient and focused meetings, focus your team's efforts with clear goals, and celebrate success—is to focus and maximize the amount of time the team has to develop meaningful products, not to detract from that time. If your processes and systems are efficient and concise, they will help your team stay on track.

### ***Prepare for Efficient and Focused Meetings***

Chances are you've been at a meeting that was not well organized or efficient. How did you feel about attending another meeting after that one? You were probably less than enthusiastic. Think about your team meetings. Don't you want those to be highly organized and efficient so that your time is well spent? Of course! Here are some strategies that teams have found helpful for running organized and efficient team meetings.

- **Define roles:** It's important to establish roles for team meetings. These roles may include a meeting facilitator, a timekeeper, and a recorder. While roles may not be held by the same individuals each meeting, it's a good idea to have the same person facilitating until the team gains more experience in the work and builds the capacity for that role.
- **Have clear agendas and keep notes:** Meeting agendas should inform and guide whatever discussions about student learning will be taking place. In general, they will follow one or more steps of the PDSA cycle. Consider the agenda template in figure 1.3 (page 18). See page 137 in the appendix for a reproducible version of this template.

Successful teams build routines into their meeting agendas that help members stay on track with their work, that provide structure to their collaborative conversations, and that facilitate the development of work products. Use this template with your team to set a meeting agenda. Note that in the team norms section, teams can record their list of norms and also reference any norms they will be actively monitoring.

Facilitator: _____ Recorder: _____ Timekeeper: _____ Other roles: _____	Team norms:    
Meeting Element	Notes
<b>1. Focus it (the first three to five minutes):</b> The facilitator reviews the meeting focus and desired end result. Provide a brief description of the process. Answer the following. <ul style="list-style-type: none"> <li>• Where are we in the PDSA cycle?</li> <li>• What do we plan to accomplish today?</li> <li>• What will we walk away having reached or created (for example, decisions, products, or a plan of action)?</li> <li>• What process will we be using (for example, brainstorming, examining the protocol for reviewing student work, or identifying assessment items)?</li> </ul>	 Meeting focus:   
<b>2. Do it (the majority of the meeting):</b> Implement the following actions. <ul style="list-style-type: none"> <li>• The facilitator guides the team through the process.</li> <li>• The recorder takes notes on key decisions or products made.</li> <li>• The timekeeper helps monitor the progress of the team during the allotted time.</li> </ul>	Notes:    
<b>3. Review it (the last five minutes):</b> Discuss what the team has accomplished, and determine next steps and assignments (time will vary). Do the following. <ul style="list-style-type: none"> <li>• Collaboratively establish the next agenda.</li> <li>• Reflect on norms as appropriate.</li> </ul>	Action steps and the responsible team members:  Date of the next meeting: _____ Agenda for the next meeting:  Data or information to bring to the next meeting:  Reflection on norms:  Questions for an administrator:  

*Source: Adapted from Bailey & Jakicic, 2019.*

**Figure 1.3: Team meeting agenda template.**

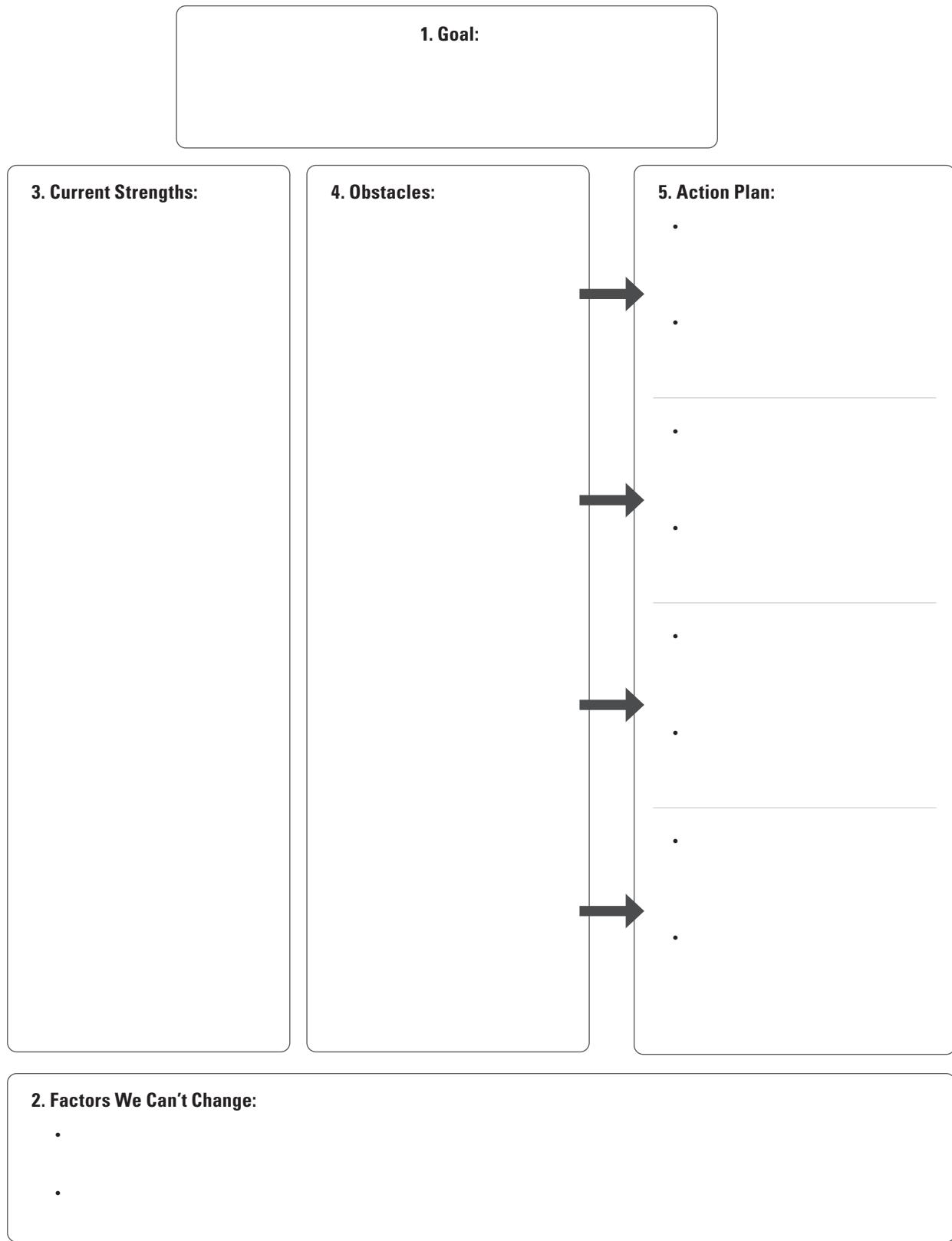
As you can see, while uncomplicated, this agenda is clear about what the team will accomplish during members' time together. Additionally, the agenda includes a conversation about the team's next steps. Agendas and notes are helpful not only to ensure that there's productive work from meeting to meeting but also to inform team members who were unable to attend. Recording notes throughout the meeting creates a group memory of conversations, decisions, and next steps that will carry the team's momentum forward to the next meeting. These notes should be shared with everyone on the team and will serve as a basis for creating the next agenda. They have an added benefit in that they help team members hold one another accountable for decisions made at each meeting.

- **Stay organized:** The work you will be doing as a collaborative team won't necessarily be linear, and at times, the paperwork may pile up. Meeting notes, assessment data, drafts of common formative assessments, and standards documents can end up in a mess, or worse yet, they might be unavailable when you need them during a team meeting. We highly recommend that your school create online document folders where teams (including the leadership team and school intervention team) keep all information used in this work. Making sure team members can easily access these documents will save time and allow members to see documents from other teams. Consider, for example, a seventh-grade middle school science team that wants to look more closely at the sixth-grade science essential standards. Being able to bring these up during a team meeting without having to get and print them before the meeting will save everyone time. Ideally, each member of the team will have access to the file so that everyone can be on the same page (literally and figuratively).

### ***Focus Your Team's Efforts With Clear Goals***

Establishing norms and collective commitments is a great first step for teams, but it's important to translate those good intentions into results. Begin by examining data to determine the greatest area of need in student learning, and then set clear and measurable targets for improvements in those areas. In PLCs, these targets are expressed as *goals*—"measurable milestones that can be used to assess progress in advancing toward a vision" (AllThingsPLC, 2016, p. 4). Specifically, these goals are *SMART*—strategic and specific, measurable, attainable, results oriented, and time bound (Conzemius & O'Neill, 2014). These goals do not focus on what the team members, as educators, do. Rather, they focus on what students will do as a result of the team's actions. They target critical areas for improvement in student learning, and therefore are designed to guide focused improvement and also provide a process for monitoring progress toward their attainment—the results.

The most powerful part of the process, however, is the development and implementation of an *action plan* that is designed to close the gap between the current reality and the goal. The plan may include several actions and steps that focus on closing that gap, ranging from curriculum alignment to the use of formative assessments, implementation of effective instructional practices, and targeted interventions. The SMART goal planning tool in figure 1.4 (page 20) shows the process teams can follow to establish SMART goals and design action plans that take these critical areas into consideration. See page 138 in the appendix for a reproducible version of this tool.



*Source: Adapted from Dennis King, Solution Tree Associate. Used with permission.*

**Figure 1.4:** SMART goal planning tool.

## **Celebrate Success**

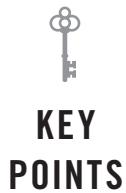
Working as a collaborative team is certainly rewarding, but it can definitely be hard work. Be sure to keep perspective and maintain momentum by celebrating along the way. Use gains in student achievement and other team accomplishments as sources of inspiration. Leadership teams can support this on a schoolwide basis, but teams can also schedule celebrations into meeting agendas so that they recognize the results they themselves have achieved.

## **Full Speed Ahead**

We hope this chapter has helped you recharge your knowledge about PLCs, and affirmed or even refined your understanding of how your team can function more effectively. Ensuring your team's ability to function effectively and efficiently establishes a strong foundation and framework for tackling the challenges and embracing the rewards of what we consider one of the most pivotal and exciting parts of being a PLC—creating and using common formative assessments. The next chapter will frame the overall topic of assessment and set the stage for starting the process.



# Setting the Stage for Common Formative Assessments



- There is compelling research that says frequent formative assessments improve achievement for all students.
- Common formative assessments do not have to be formal tests or quizzes.
- Common formative assessments should not take a long time to administer or include lengthy student work products.
- If you don't use the results of a common formative assessment to make a difference in student learning, the assessment is not formative.

As we discussed in chapter 1 (page 5), four critical questions guide the work of teams in PLCs:

1. What knowledge, skills, and dispositions should every student acquire as a result of this unit, this course, or this grade level?
  2. How will we know when each student has acquired the essential knowledge and skills?
  3. How will we respond when some students do not learn?
  4. How will we extend the learning for students who are already proficient?
- (DuFour et al., 2016, p. 36)

This book will help your team confidently answer the second critical question by using common formative assessments. Specifically, this chapter will help define what common formative assessments are and how they fit into a well-developed, comprehensive assessment system.

When your team begins to create assessments to determine whether students have learned the identified essential learning outcomes, you are beginning the work that many believe is pivotal to the process—the work that will really make a difference for your students, but that will also challenge you as a teacher. Before teachers really understand this work, we often hear them say, “We are already testing students too much. Why would we want to do more testing?” and “I already know which of my students need help. I don’t need another test to tell me that.” These teachers aren’t being difficult; they

are just expressing their concern that any instructional time they take away from the teaching process will have a negative impact on their students.

Once teachers begin this work and start to see success, they understand that writing and using common formative assessments is not *one more thing*, but rather an integral part of the teaching and learning process. Let's examine what teams need to know to help them see the value of this important step in the PLC process: the vocabulary of assessment, the meaning of common assessment, the benefits of common assessment, and the pieces of a comprehensive assessment system.

## Clarity About Vocabulary

Most teachers are familiar with the terms *formative assessment* and *summative assessment*, but they often think these labels are only associated with the size or timing of the assessments. Given this frequent misconception, it's important to clarify that by definition, formative assessments are assessments *for* learning and are used throughout the instructional process. We find W. James Popham's (2008) definition of formative assessments especially effective: "Formative assessment is a planned process in which assessment-elicited evidence of students' status is used by teachers to adjust their ongoing instructional procedures or by students to adjust their current learning tactics" (p. 6). Notice the emphasis on both teachers and students *using* the information to adjust their learning. Building on this definition, we define *common formative assessments* as team-designed, intentional measures used for the purpose of monitoring student attainment of essential learning targets throughout the instructional process. When we use the phrase *team designed*, we are implying that the collaborative team either writes items or carefully chooses items that will elicit information about the specific targets the team has taught. We narrow the focus of these assessments to essential learning targets, rather than attempting to assess everything taught. Finally, we emphasize the idea that formative assessments happen when students are still learning and teachers are still teaching new material.

What differentiates an assessment as formative isn't the size or the timing—it is how the assessment is *used*. DuFour and colleagues (2016) clarify the intent of formative assessments even further:

The assessments are formative because (1) they are used to identify students who need additional time and support for learning, (2) the students receive the additional time and support for learning, and (3) students are given another opportunity to demonstrate that they have learned. (p. 154)

Summative assessments are assessments *of* learning (Chappuis & Stiggins, 2020) and are given at the end of a unit of instruction when teams are ready to move on to new learning. Traditionally, a summative assessment implied that learning was completed; however, in the PLC process, teachers and teams use the results of these assessments until students have mastered all essential standards. In fact, we prefer the term *end-of-unit assessment* instead of *summative assessment* to clarify that teams can continue to use the results formatively.

We believe the assessment's purpose and the way teams use the results are what really determine whether an assessment is formative or summative, not how the assessment

is written or administered. If the assessment occurs during the learning process, and the results will be used to help students continue to learn, it is considered formative. AllThingsPLC (2016) notes *formative assessment* is “used to advance and not merely monitor each student’s learning; the assessment informs the teacher regarding the effectiveness of instruction and the individual student regarding progress in becoming proficient” (p. 3). If the assessment occurs after the learning is complete and is used to give a grade or provide a final measure of student results, it is summative. So, the biggest difference will be not what the assessment looks like but rather how teachers respond to the results. For example, if an English teacher asks her students to complete a graphic organizer comparing the themes of two stories, grades the assignment, and then returns it to her students believing it’s a formative assessment, she misses the opportunity to use the power of formative assessment and only uses the task summatively. Alternatively, if she uses the assignment to determine which of her students cannot compare the stories’ themes and then provides them with additional instruction as a result of the information, she supports those struggling students to learn more.

## The Meaning of *Common*

The term *common assessment* refers to those assessments given by teacher teams whose members teach the same content or grade level—those with “collective responsibility for the learning of a group of students who are expected to acquire the same knowledge and skills” (AllThingsPLC, 2010, p. 2). For the assessment to be common, no teacher can opt out of the process; it must be common to all teachers who teach that course or grade level. AllThingsPLC (2010) adds that common assessments use “the same instrument or a common process utilizing the same criteria for determining the quality of student work” (p. 2). This means that if a rubric is used, the teachers must not only build a common understanding of what the rubric means but also use collaborative scoring practices to ensure the results are the same no matter which teacher does the grading.

## Benefits of Common Assessments

The benefits of common formative assessments are great. DuFour and colleagues (2016) state that common formative assessments do the following:

- Promote efficiency for teachers
- Promote equity for students
- Provide an effective strategy for determining whether the guaranteed curriculum is being taught and, more importantly, learned
- Inform the practice of individual teachers
- Build a team’s capacity to improve its program
- Facilitate a systematic, collective response to students who are experiencing difficulty
- Offer the most powerful tool for changing adult behavior and practice (p. 149)

Some teachers are concerned that collaborating to do this work will take away from the time they have to prepare for their classes. However, when considering the amount of

time each teacher currently puts into the assessment process, doing the work collaboratively should result in more efficient work. Rather than starting from scratch, many teams begin the process by sharing their current assessments and choosing those ideas and items that appear to be most effective. Your team will likely experience a shift in how you all work together as you move from *sharing* your current practice to actually building assessments together. Teams that design common formative assessments have more in-depth discussions about proficiency, and as they analyze the resulting data, they have more focused conversations about instructional strategies (Graham & Ferriter, 2008).

One of the principles of PLCs is that teams engage in collective inquiry—that they learn together. They build shared knowledge of best practices so that they increase student learning (DuFour, DuFour, & Eaker, 2008; DuFour et al., 2021). Consider how your team will learn together as you write and use formative assessments. You will likely become better assessment designers and will strengthen your skills in analyzing and using data.

While analyzing data, your team will share instructional strategies and determine whether some of those strategies are more effective than others. Even if there is no one strategy that works best, you will add to your repertoire of strategies so that you can respond in different ways to the students who didn't learn the first time.

When your team works to answer critical question 1—What knowledge and skills should every student acquire as a result of this unit of instruction?—you begin the process of ensuring equity for all the students your team serves. In chapter 3 (page 35), we'll lay out a process that teams use to build consensus on how to answer this first important question. This guaranteed and viable curriculum (Marzano, 2003) becomes the focus for your formative assessments.

*Equity* means that your students will learn the same important learning targets no matter which teacher they have. While this concept sounds good for students, it also has an important benefit for teachers. That is, when students are commonly prepared for the next course or grade level, as happens when they get equitable content, the next teacher doesn't have to use valuable instructional time "filling in" content for some students so that all students have the same prerequisite skills and information. Common formative assessments help ensure equity because they are written around agreed-on learning targets. While developing these assessments, your team will take the important step of discussing what proficiency will look like. Coming to consensus about proficiency is critical for guaranteeing equity for your students.

In addition, equity means that your team will have a greater capacity to respond when students need more time and support. DuFour and colleagues (2016) argue that when students experience difficulty learning, members of collaborative teams must provide additional time and support through an intervention system that is timely, directive, and systematic. They describe many examples of systematic interventions that effectively meet these characteristics. Interventions may range from differentiated instructional strategies to smaller groupings for monitoring incomplete work, and even enrichment opportunities. For example, after analyzing its common formative assessment results, a team may move students from one classroom into another for a *short* time to provide specific and targeted learning support.

If there are three classes on the team, each teacher takes one group of students for response. One teacher takes all the students who need more time and support and teaches the target using an alternative instructional strategy, another takes the students who need additional practice, and the third teacher takes those who could benefit from enrichment.

Schools operating as PLCs build a tiered system of response, typically called *response to intervention (RTI)* or *multitiered systems of support (MTSS)*, to ensure students will receive the time and the instructional strategies they need to be successful. As part of the tiered response, teams embrace formative assessments as the way to identify which students need that additional support on their essential standards. Common assessments are a crucial element of a school's system of support to ensure student learning. Chapter 7 (page 99) further details how common assessments inform the response of a collaborative team within a tiered RTI system.

## A Comprehensive Assessment System

In our early work, we used the phrase *balanced assessment system* to describe how schools most effectively used many different types of assessments to monitor student growth. The phrase referred to layers of assessment from “very formative” all the way to “very summative” and implied that each assessment had equal importance to the work of collaborative teams. As we've worked with schools that operate as PLCs, however, we've instead used the phrase *comprehensive assessment system* as a better fit for defining how assessments are used in a PLC. These schools heavily rely on common assessments (both formative and end-of-unit assessments), which allow teams to engage in collective inquiry for their students. The focus of these assessments is to gather evidence of student learning in the essential skills and concepts being taught at that time. Do we still use periodic and annual assessments? Of course! However, common assessments have greater value to collaborative teams because they provide information not available from other assessments—specific diagnostic information about where student learning stopped as well as information about which instructional strategies were most effective for certain students.

Because of the strong research base for using formative assessments (Hattie, 2017), schools are successfully creating these team-based assessments in addition to various other types of assessments. They want to have all the necessary information about their students. Therefore, they recognize the importance of a comprehensive assessment system.

In a comprehensive assessment system, teachers have access to both formative and summative information so they can make short- and long-term decisions to help their students. So what does a comprehensive assessment system look like, and why do teachers need each type of assessment? Table 2.1 (page 28) describes the types of assessments in a comprehensive assessment system and their purposes.

The elements of a comprehensive assessment system include classroom formative assessments, common formative assessments, common end-of-unit assessments, interim or benchmark assessments, and external summative assessments. We would assert the majority of collaborative teams' time falls into the area of current learning assessment. Let's look at the types of assessments.

**Table 2.1: A Comprehensive Assessment System**

	<b>Types</b>	<b>Purpose</b>
<b>Current learning assessment (direct and timely)</b>	Classroom formative assessments (individually determined by teachers)	To give immediate feedback and make in-the-moment instructional moves
	Common formative assessments (co-planned by collaborative teams)	To identify students who need additional time and support at critical points in the unit's implementation, to provide insights into misunderstandings, and to identify effective strategies
	Common summative or end-of-unit assessments (co-planned by collaborative teams)	To verify student attainment of essential standards addressed within the unit and (potentially) to design further interventions
<b>Periodic assessment</b>	Interim or benchmark assessments Progress monitoring of foundational skills Quarterly or semester checks	To identify whether students are making progress toward end-of-year proficiency and provide evidence of alignment between instruction and curriculum
<b>Annual or culminating assessment</b>	External summative assessments State or provincial testing Advanced Placement exams	To identify whether students have mastered grade-level standards and provide information on the achievement of specific student groups

## ***Classroom Formative Assessments***

As part of good instructional practice, teachers are constantly checking in on their students' learning in the moment. In fact, we encourage teachers to use a variety of strategies during each lesson to gather immediate feedback about whether students understand the concepts being taught. Teachers can use a number of strategies to gather evidence of their students' understanding, such as posing questions and monitoring students as they work independently and in groups to provide feedback and support. Sometimes called *checks for understanding*, these varied strategies include using digital tools, whiteboards, and exit slips or "tickets out the door" that ask a few questions about the lesson, as well as administering teacher-created quizzes. Whenever teachers engage practices that provide the teacher (as well as students) with information about whether the students have successfully learned a target, the practices are considered formative assessments. For example, if a teacher asks students to respond to the question, "What is the difference between a plant cell and an animal cell?" as an exit slip, the teacher can easily sort the responses into groups of who learned and who did not learn the difference. Because the teacher knows *by student* who needs more time, the practice is considered a formative assessment. Thus, classroom formative assessments are still necessary for the work of PLCs.

## ***Common Formative Assessments***

*Common formative assessments* are collaboratively developed tools that gather evidence of student learning targets—the smaller pieces of learning that lead to an essential standard—during the span of an instructional unit. While they can look similar to the checks individual teachers use, these assessments have two required characteristics. First, teams intentionally plan common formative assessments to target specific skills they want all their students to demonstrate. And second, common formative assessments provide a

permanent product so that teams can identify proficiency on the learning targets student by student and collaboratively analyze the results.

Teams commonly misconceive that formative assessments have to be lengthy and that they take too much time to administer. In fact, we suggest that formative assessments not be time-consuming. They are written around a small number of learning targets and therefore are not intended to take a long time to administer. Effective formative assessments intentionally include limited questions or items and should take only a short time for students to complete. Ideally, common formative assessments become a seamless part of teaching and learning, and because we want them to occur with sufficient frequency, they should be short enough in length that they don't interrupt the instructional process. We encourage teachers to design assessments that take as few as fifteen to twenty minutes to administer. Because they are smaller in scope, teachers can score these assessments quickly and respond to student needs in a timely fashion.

Another common misunderstanding is that common formative assessments must be developed as formal tests or quizzes. It's important to know that teachers are looking for evidence, and they do not have to gather that evidence in a traditional fashion. Items used as common formative assessments do not have to be pencil-and-paper tests or quizzes; they can be individual student work samples, completed graphic organizers, brief writing pieces, products, or performances. They can consist of work samples and activities teachers used previously as practice during the unit of instruction. They can also be performances teachers watch and score against a rubric.

Team members codesign common formative assessments as checkpoints to gather evidence of essential skills and concept attainment throughout the instructional journey within a unit. The entire team agrees on how and when they will incorporate the checkpoints into their pacing of instruction. Once the evidence is gathered, the team analyzes the assessment results to determine which students are proficient at this point in time and which need additional time and support. Common formative assessments give teams feedback on the effectiveness of their instruction, and since they are common, they help all members gain insights about instructional strategies and interventions so that they can respond to the evidence in a timely fashion.

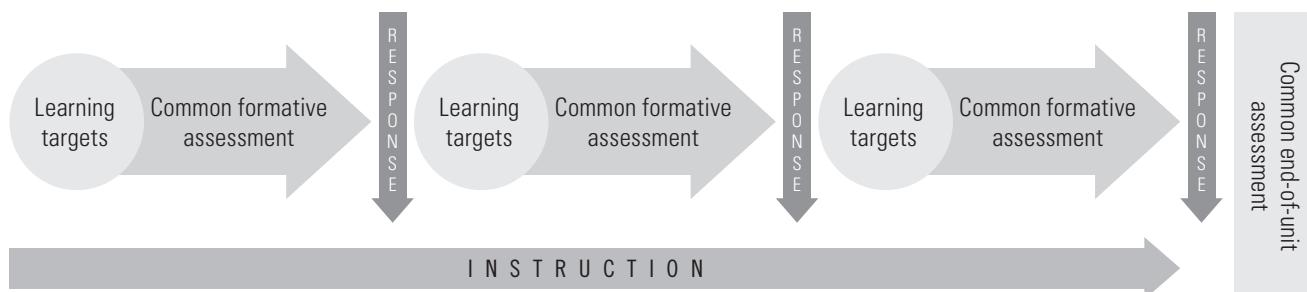
You will learn in chapters 4 (page 51) and 5 (page 65) that in order to develop truly effective formative assessments, you will need to break *standards*—the knowledge and skills states and provinces identify for student learning—into the learning targets that are each made clear to students. *Learning targets* are the smaller skills, strategies, and pieces of content information a student needs to know in order to master the standard. The process your team will use to carefully uncover these learning targets is described in chapter 4 (page 51).

Teams can use this concept of unwrapping as a key strategy for writing formative assessments to guide their instruction. A formative assessment is usually written around learning targets (specific skills and strategies), while a summative assessment is usually written around more complex standards or even multiple standards. The reason this is important is that the learning targets are the step-by-step processes students learn as they move toward their understanding of a bigger concept. Teachers formatively assess so that they know exactly how to respond when a student is experiencing difficulty during the learning process.

## Common Summative or End-of-Unit Assessments

Summative assessments, or what we like to call *end-of-unit assessments*, typically are administered at the end of an instructional unit to verify that students are proficient in the essential standards the unit addressed. These assessments are generally designed around standards rather than learning targets. They are less diagnostic than formative assessments because their intent is to evaluate overall student mastery of the more inclusive standard. Using these assessments, teams are able to see whether their students can put the small skills and ideas together. For example, suppose a science department developed the overall goal that students would design and carry out an experiment following the scientific method to gather good information to prove a hypothesis. The department would create and use a number of formative assessments to get evidence of specific learning targets (Can the student create a hypothesis? Does the student know a number of different ways to gather and arrange data? Can the student use correct safety procedures in the lab?). The summative assessment, however, would require the student to be able to put all these skills together to design and carry out an effective investigation and communicate the final results.

Figure 2.1 provides a graphic representation of how common formative assessments and common end-of-unit assessments work in concert over the course of an instructional unit so teachers can monitor student learning and respond to the evidence with support.



**Figure 2.1: Process to monitor student learning with common formative assessments and common end-of-unit assessments throughout a unit of instruction.**

All assessments can be used to help students learn at higher levels. Assessments that are worth doing should result in a response on the part of both teams and students. In this model, teams use data coming from their common assessments to respond to students who need additional time and support for learning. And although some would view summative or end-of-unit assessment as a time when the opportunity to learn is finished, effective teams continue to find ways to support student learning. In support of this concept, we prefer the term *end of unit* rather than *summative*. Chapter 7 (page 99) will provide more details about how teams respond to the data coming from their common assessments.

Even though the majority of a team's focus work centers on the assessments taking place while students are currently learning, working with information coming from periodic assessments as well as external summative assessments can also empower the team.

## ***Periodic Assessments***

Many schools and districts use *benchmark assessments* given periodically to determine whether their students are making progress toward the mastery of standards expected by the end of the year. Larry Ainsworth and Donald Viegut (2006) suggest that benchmark assessments have two benefits. The first is that they have predictive value for how students will do on the next level of assessment (the state or provincial test). Second, they help the team plan for future instruction and assessment. If the benchmark assessment is written in the same style as the state or provincial assessment or some other external summative assessment (like an Advanced Placement exam), students have an opportunity, before the end of the year, to practice those types of assessment items. Also, the benchmark assessment allows students to know where they are on the path toward mastering each of the standards.

It's important to note that some benchmark assessments are designed to monitor student attainment of specific standards that have been addressed through classroom instruction prior to the benchmark assessments' administration. Often, they are designed to align with a specific pacing guide. For example, a district may decide that all schools will teach five standards in a particular subject area during the first quarter. The district then creates a summative assessment to be given at the end of that quarter. Other benchmark assessments are designed more globally to monitor student growth across a recursive set of standards, some of which teachers may not have yet addressed in their instruction. If your school or district is using benchmark assessments, it's critical to understand their structure and the purpose of their implementation.

## ***External Summative Assessments***

Most states and provinces administer annual achievement assessments toward the end of the year. The purpose of these tests is to determine what percentages of students fall into each of several levels: *below proficiency*, *at proficiency*, and *exceeding proficiency*. Teachers generally view these as high-stakes tests because the results are reported and publicized, often comparing school to school within a state or city. These tests are used to determine whether a school or district is making adequate progress toward all students' being proficient. They are often used to examine curriculum and instructional alignment. Other external summative assessments many schools use include Advanced Placement exams, the SAT, and the ACT. Schools use the results of annual assessments to determine their current achievement levels, examine equity of learning across student groups, identify their greatest areas of need and set SMART goals for the year (Conzemuis & O'Neill, 2014).

## ***Assessments on Which Teams Should Spend Most of Their Time***

Each of these assessment types is necessary for teams to create a comprehensive view of student learning. Teachers want to know, as they are teaching a concept, whether students are understanding, and they use classroom formative assessment strategies to gather that kind of feedback. Team-developed common formative assessments help teams of teachers respond—*during* the learning process—to students who need more time and support as well as those who could benefit from enrichment strategies. The team capitalizes on the benefits of collaboration to use the best strategies for instruction and

corrective instruction. Common end-of-unit assessments are important because they keep the entire team focused on the identified essential standards, ensuring equity for all students no matter to which teachers they're assigned.

Periodic benchmark assessments provide checks during the school year to ensure students are making progress toward proficiency on the standards that the high-stakes end-of-year tests will assess. External summative assessments help schools and districts remain accountable for all students in their schools.

Although highly effective teams use each of these assessments to provide support and enrichment for their students, we assert that the current learning assessments (classroom formative, common formative, and common end of unit) are most important to the work of collaborative teams and, as such, deserve the most attention.

As teams begin the process of developing common formative assessments, they should look at their list of current assessments, considering whether they have appropriate assessments in each category and whether they have some assessments that overlap in purpose. If so, they could discontinue any redundant assessments to provide more time for them to work on common formative assessments. Sometimes, teams will discover that they have a plethora of summative and external assessments already in place, but don't have adequate formative assessments. In this case, they should discuss the possibility of eliminating some of their summative assessments.

In many districts, there are required assessments teachers must use. Early in the development of common formative assessments, teams may find that they are doing duplicate work because their districts still require them to administer everything on the original assessment list. If this is the case for your team, you may want to keep a list of all the assessments administered over a quarter of the school year and note the amount of student contact time it takes to administer them. These data can help you understand whether too much time is really being given to assessment and whether there really is too much overlap of information. Our experience has been that sometimes duplicate summative assessments can be eliminated once administrators, teachers, and parents are confident that the common formative assessments are more beneficial, particularly when the summative assessments provide redundant information.

## How to Set the Stage for Success

Your team may be worried about the amount of time it will take to create, administer, analyze, and respond to common formative assessments—most teams are. But many teams are already successfully doing this work and feel confident that the time they are spending is worth it. So how do they make it work?

We suggest that a school spend time exploring the why of common assessments. While most teachers would agree that they want to help students learn more, the concept of changing their practice and delving into shared data with colleagues may seem threatening. Once teachers learn about the compelling research behind formative assessments, they are more likely to be invested in the process and willing to dip their toes in the water. The PLC process supports teacher learning, and teams that write and administer

these assessments are engaged in powerful professional development. They have rich discussions and debates about the importance of their standards, what proficiency looks like for students, effective assessment practices, and how best to respond to students who haven't yet mastered a standard. Because they are doing this work together, teachers benefit from the group's insights instead of relying on only their own knowledge.

As teams get started on the process, they generally find that the steps might initially take longer than they will once the team members have become more assessment literate and experienced a full cycle of design, implementation, analysis, and action. It's good to recognize, however, that teams that use common formative assessments on a regular basis become so familiar with the process that they can accomplish much more, and gain a much better product, than when they first started.

For example, when starting out, teams may need a full meeting to discuss which targets of learning they will assess and when they will administer the assessment. They will likely use another meeting to write the actual assessment and discuss proficiency. Once they've administered the assessment, it will probably take an additional meeting to analyze the data and develop the plan for responding to student needs. Teams that have worked on this over a period of several years find that they are able to expedite the process, focusing more on revising assessments than on developing new assessments. In chapter 1 (page 5), we talked about how teams create a workflow from meeting to meeting based on the plan-do-study-act cycle. Using one meeting to write common formative assessments and a subsequent meeting to analyze the results and plan the response is an example of how this work could look.

## A Bridge Between Teaching and Learning

Teams in PLCs focus on common formative assessments for their work together because of the compelling research that shows these are the assessments that can truly improve student achievement. When teams use assessments together, they keep a finger on the pulse of student learning and respond to the information they get. That information is feedback on their instruction, on the students who need additional time and support, and on the specific targets for support.

As practitioners, we feel strongly that common assessments are the bridge between teaching and learning, and the means to ensure equity in learning across all students. They are intentional and targeted, leading to action. Finally, as Grant Wiggins (2006) so eloquently reminds us, "The more you teach without finding out who understands the information and who doesn't, the greater the likelihood that only already-proficient students will succeed." If we *don't* use formative assessment, we are basically regressing to the "I taught it, they just didn't learn it" mentality. And in the end, the students who need it the most will lose out.

In chapter 3 (page 35), we will explore how teams begin the work of developing common formative assessments by answering the first critical question: What do we want students to know and be able to do? This work becomes the foundation for the rest of the assessment process.



## CHAPTER 3

# Determining Priorities and Essential Standards



- We monitor what we value. Teams must agree about what is most important for their students to learn and what it will look like when students learn it.
- All standards are not equal in value.
- Teams can use a process to identify the most important outcomes they have for their students.
- Essential standards are the basis for common formative assessments and for determining the additional time and support students need when they experience difficulty.

Before collaborative teams begin writing and using common assessments, they must first consider what they will need to assess. Without careful thought, teams might be faced with too many skills and concepts to teach and too many to assess. This is why the first critical question we ask teams to answer is, “What do we want students to know and be able to do?” It’s not uncommon for teams new to the PLC process to answer, “Our state or district has created a list of standards that we must teach and that students must learn. We teach and assess those standards.” However, most teachers will also agree that given the number of standards they are typically asked to teach, it’s impossible to teach, assess, and provide needed time and support to students in the typical school year. Thus, the work teams engage in to answer this first critical question will become the foundation for the other questions of collaboration: “How will we know if students have learned?” “What will we do for those who haven’t?” and “What will we do for those who already have?” Their answers will help teams choose standards from their initial full list of standards—including the standards that *all* students must learn.

### Understanding Essential Standards

Many schools and districts we work with have written curriculum guides that include all the state’s standards of learning in a content area. For example, third-grade teachers might have a guide that lists all ninety-one of their ELA standards. Based on the reality

of the school year, this means they would have approximately two days to teach, assess, and respond to each standard. Most teachers have had the experience of trying to cover the curriculum and then realizing at some point during the school year that they won't be able to accomplish everything. They are faced with the decision to leave out content or to rush through what's left on the list, hoping to give their students enough background information so that they will be successful on the end-of-year test.

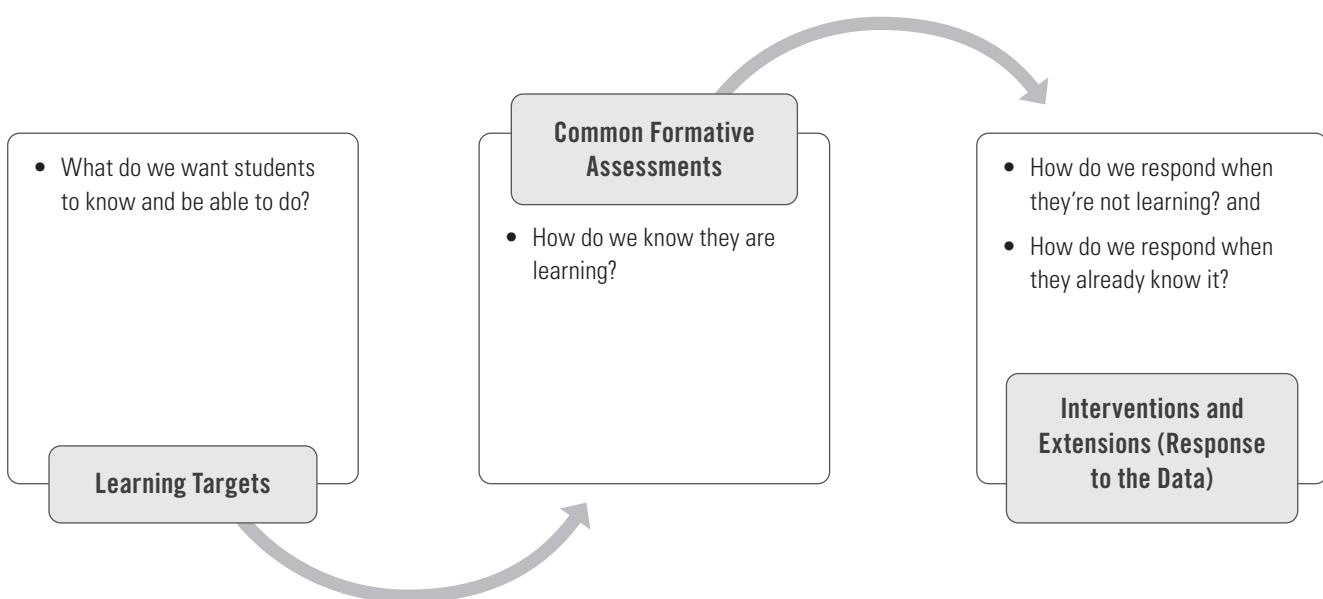
Instead, teams need to be clear on the skills, concepts, and processes that all students must know in a course or grade in order to succeed both now and in future classes or grade levels. When teams collaboratively engage in the work of identifying what's important for all students to learn, the result is a list of standards known as the *essential standards*. These standards guide the common assessments teams will use, as well as the support teams will offer when students aren't yet proficient. In this chapter, we will discuss how teams can reach consensus about this important information and use it to develop pacing guides that ensure they will have time to teach, assess, and respond to the standards they've agreed all students need to learn. We acknowledge that several different terms are being used to describe this subset of standards: *power standards*, *priority standards*, *emphasized standards*, and *essential standards*. We use the term *essential standards* for this book.

Larry Ainsworth and Kyra Donovan (2019) define essential standards as:

A carefully selected *subset* of the total list of the grade-specific and course-specific standards within each content area that students must know and be able to do by the end of each school year in order to be prepared to enter the *next* grade level or course. (p. 9)

Figure 3.1 demonstrates how teams use essential standards.

Essential standards are the foundation of the PDSA cycle (described in chapter 1, page 5) that a team uses in its work. Once the team members choose their essential



**Figure 3.1: How teams use essential standards.**

standards, they will write their common assessments around these essential standards and build their response systems to ensure all students have mastered them. The graphic representation in figure 3.1 shows how question 1 flows into question 2 (How do we know they are learning?) and subsequently into questions 3 and 4 (How do we respond when they're not learning? and How do we respond when they already know it?). Thus, teams should recognize how important it is to thoughtfully choose essential standards.

## Understanding the Need for Essential Standards

In 2002, Douglas Reeves addressed the concern of having too much to teach by introducing what he called *power standards*. He suggested that teachers consider some standards as more important than others. He called the high-priority standards *power standards* and used the term *supporting standards* to identify the standards that don't have that same priority. He suggests that teams treat supporting standards differently by spending less time on them and by not providing additional time and support when students haven't mastered them. The why behind asking teams to engage in the work of identifying essential standards is also based on Robert J. Marzano's (2003) book *What Works in Schools*. In this book, Marzano (2003) shares his research on highly effective schools; the number-one factor he found these schools have in common is a "guaranteed and viable curriculum" (p. 22). This means that all students, no matter which teacher they are assigned, will be educated on a common guaranteed curriculum. It also means that there will be adequate time to teach that curriculum, thus making the curriculum viable. Here is where his research disconnects from regular practices for schools. Most U.S. states and Canadian provinces, for example, have identified a list of standards in each content area. In fact, the introduction of the Common Core State Standards for ELA and mathematics (National Governors Association Center for Best Practices [NGA] & Council of Chief State School Officers [CCSSO], 2010a, 2010b), the Next Generation Science Standards (NGSS Lead States, 2013), and *The College, Career, and Civic Life (C3) Framework for Social Studies State Standards* (National Council for the Social Studies, 2013) has brought more agreement about what students need to know from state to state. States consider these standards as guaranteed because they are published and accessible for all teachers. However, Marzano's (2003) research shows that the standards have to be both guaranteed and viable. Each set of standards we have listed is too lengthy for a team to teach, assess, and provide needed time and support for in a typical school year.

W. James Popham (2003) supports Marzano's research when he concludes:

It is critical that all of the assessed standards be truly significant. From an instructional point of view, it is better to measure a handful of powerful skills accurately than it is for tests to do an inaccurate job of measuring many skills. (p. 143)

In support of the original research on essential standards, the work of choosing and using essential standards continues as schools and districts eagerly engage their teams in standards-based learning (Heflebower, Hoegh, & Warrick, 2021). Teams start this process by choosing the essential standards and build their instructional units around these identified standards. They create units of study to ensure all students have access to instruction and time to learn the essential standards agreed on by the team, school, or district.

## Moving From Individual to Team Decisions

Before a school becomes a PLC, teachers often work in isolation to decide how much time they will spend on each standard and to understand what proficiency will look like for each standard. When teachers begin their collaborative work together to identify essential standards, they are often surprised to find that they and their colleagues emphasize different standards and have different expectations of proficiency. Doing this work collaboratively means teams are moving to equity in expectations for all students. No longer will one teacher expect more or less than others do as to what proficient work looks like for their students. And no longer will administrators worry that assigning students to different teachers in the same grade or content area will result in some students learning more than others.

Consider what happens, for example, when a fifth-grade team of three teachers in a traditional school looks at the following standard for writing:

Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
- b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
- c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast, especially*).
- d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
- e. Provide a concluding statement or section related to the information or explanation presented. (W.5.2; NGA & CCSSO, 2010a)

If the team doesn't build consensus about what understanding will look like for students, individual teachers could teach to distinctly different understandings. One teacher could easily emphasize the structure of writing, asking her students to work on topic sentences, supporting details, and conclusions. She could use a graphic organizer to help students see the link between the introduction and the conclusion and the need for support in between. A second teacher on this team could emphasize the development of ideas in writing, helping her students support their topic sentences with examples, elaborations, and explanations. Her graphic organizer could provide an outline form for students to build their piece of writing's structure. The third teacher on the team could emphasize the development of word choice and transitions between sentences by focusing on teaching students how to add interest and depth to their writing. All these teachers would be able to say that they are teaching the standards laid out for fifth graders. When these students move on to sixth grade, they will likely be prepared for sixth-grade writing. However, they will all be prepared *differently*. The sixth-grade teacher will have to spend some time filling in the gaps for each student, rather than being able to build on the common preparation of all students.

Imagine, instead, if these three teachers wrestled with the difficult work of deciding what they believed fifth-grade writing should look like. They would determine what to

emphasize, what students should master, and what mastery would look like. They would decide which standards to assess frequently and formatively, and when to provide more time and support for students experiencing difficulty. For example, in the fifth-grade writing example, teachers might agree that all fifth graders must be able to write a strong introduction and conclusion. They would likely develop a rubric indicating what an effective introduction and conclusion look like. They would teach these concepts and use common formative assessments to determine whether students achieved proficiency. Students who can't write an introduction and a conclusion would get additional instruction specific to their needs and be reassessed to ensure mastery.

## Understanding the Process

If we asked a team to work together to establish a list of the most important learning outcomes, each team member would likely have a different view on what makes one standard more important than another. Teachers' experiences, philosophies, and personal interests often affect their perspectives about priorities. To avoid having team members choose essential standards for different reasons, we suggest teams use the criteria provided by Ainsworth and Donovan (2019; see table 3.1). The term *REAL standards* is often used in this process as an acronym for the criteria.

**Table 3.1: REAL Criteria**

Criterion	Description
<b>Readiness</b> for the next level of learning	Standards that are prerequisite to concepts or skills students will encounter later in the unit or the school year
<b>Endurance</b>	Standards that represent content or skills students will continue to use beyond the school year—often those needed in life
<b>Alignment</b> to high-stakes assessments	Standards that are frequently assessed on external assessments
<b>Leverage</b>	Standards that have connections between two or more curricular areas

Source: Ainsworth & Donovan, 2019.

The criterion *readiness for the next level of learning* might include a kindergarten standard requiring students to learn how to read consonant-vowel-consonant words. While this target isn't an end point in itself, it is an important step in learning to read. A standard that has *endurance* might incorporate understanding place value in mathematics. Once students understand the concept of place value, their number sense increases significantly. They will use this understanding throughout their mathematics work in subsequent years of instruction. When a standard is *aligned* to assessments, it represents concepts and skills that play a significant role in the questions asked on high-stakes tests. States' ELA tests regularly and frequently require students to provide textual evidence about where they found the answer to a question; this matches a key standard for reading. The criterion of *leverage* refers to standards that are used in more than one content area. Consider, for example, a science teacher who is teaching students how to interpret charts and graphs. If the mathematics teacher is teaching this concept at the same time, students

are learning the concept more fully. To be essential, a standard doesn't have to meet all four of the criteria, but it will be easily identified as meeting one or more of them.

As teams begin the work of identifying their essential standards, the school's leadership team will need to make some important initial decisions. Some schools take a day in the summer or early in the school year to complete this work in one session, while others ask teams to choose essential standards as they plan each new unit. Both processes are effective, but teams need to know which one will be used before they begin this work. The other important up-front decision the leadership team must make is how and when teams will work together to vertically align their essential standards after every team has developed its draft list. Done effectively, this process takes place when all teams are available and have time to discuss their chosen standards and the reasons for their choices.

## Building Consensus as a Team

Based on the work of Ainsworth and Donovan (2019), we recommend a process for identifying essential standards that accounts for both individual teachers' interpretations of what's most important and the building of a collaborative understanding.

First, teachers individually review the list of standards for a subject area, choosing which are most important from their point of view. We recommend that all teachers gather to do this step even though they will be working independently at the beginning. By having all the teachers together, you will ensure that everyone takes about the same amount of time to complete the step. This is important because this step shouldn't take a great deal of time. This initial identification should be almost a gut decision; if teachers spend too much time thinking about the criteria, they will eventually decide that each of their standards meets one or more of the criteria! Instead, teachers each read through the list of standards and mark those that they believe are the essential standards—those standards that meet one of the four criteria of readiness for the next level of learning, endurance, alignment to high-stakes tests, and leverage. Many standards will meet more than one of these criteria. Of course, during this first step, teachers are unlikely to all pick the exact same standards to be the essential standards.

In the next step, teachers will need to build consensus about which standards belong on their list. During this step, it is important for all team members to have a voice in the outcome. Some teams will use a more formal process than others to develop consensus, but the important point is that everyone needs to agree on the final product. Teams should build consensus rather than just vote or look for those standards that the majority has identified. This process might take some time, as teachers will want to explain their reasoning—whether they included it or not—so that the team can weigh all their ideas and viewpoints. During this discussion, the team is also getting more clarity and agreement about what the standards mean.

For example, some teams start by going through the list of standards to see whether there are any that *everyone* agrees are essential standards or that *no one* agrees are essential standards. Then they work through the rest of the standards one at a time, talking about who marked or didn't mark each as a power standard and why. Teachers discuss what

they think the standard means and what it will look like if their students have mastered it. Often, this conversation helps each team member come to a clearer understanding of what the standard means and whether it belongs on the essential standards list. A piece of advice from our experiences: don't get discouraged if this step takes a while to accomplish. Although voting would make the work go more quickly, the rich discussions about what the standards mean and what students can do as a result will propel your team much further ahead than accomplishing a simple vote.

During a favorite experience of ours, we watched as a first-grade team determined essential reading foundations standards. As the team members discussed (and disagreed about) each standard, they talked about how and when they teach it. They shared strategies for counting syllables and teaching students how to decode words ending with the letter *e*. When they came to a stumbling block, we asked our favorite coaching question: "Would you use intervention time if a student couldn't do this?" The discussion and decision making took most of a morning planning workshop, but the team members left recharged and excited to implement their decisions. They agreed they were now on the same page about these standards.

It is very important that teams not default to putting all the standards that any single teacher thinks are essential on the list as an easy way to satisfy everyone on the team. This compromise (rather than consensus) strategy will result in a final product, but it will likely identify many more standards than the group wants, and the list won't be as effective as one built through the more difficult process of consensus. This consensus-building step may take some teams longer than others depending on how familiar team members are with their standards. Some state and provincial standards are ambiguous and open to interpretation. By building consensus about essential standards, teachers develop a common understanding of exactly what standards mean.

When the team has gone through each standard and decided whether to include it on the list, members have created their first draft. Teachers must understand that this is just a draft and they have to complete the process to ensure they have chosen the correct essential standards.

The following example from a fictitious third-grade team shows this process of identifying essential standards.

A team of four third-grade teachers at Longfellow Elementary met to begin the process of drafting their grade level's essential standards for informational text. During step one of the process, each teacher worked individually to identify which standards met one or more of the criteria (readiness, endurance, alignment to high-stakes tests, and leverage) for an essential standard. Teachers were looking for approximately one-third of the standards to meet one of those criteria. One teacher on the team created the following list (RI.3; NGA & CCSSO, 2010a):

#### **Key Ideas and Details**

1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

2. Determine the main idea of a text; recount the key details and explain how they support the main idea. [Endurance and alignment to high-stakes tests]
3. Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

#### Craft and Structure

4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 3 topic or subject area*. [Readiness and alignment to high-stakes tests]
5. Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.
6. Distinguish their own point of view from that of the author of a text. [Endurance]

#### Integration of Knowledge and Ideas

7. Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
8. Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence). [Leverage]
9. Compare and contrast the most important points and key details presented in two texts on the same topic.

#### Range of Reading and Level of Text Complexity

10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently.

The four team members saw that they each had items 2 and 4 on their individual lists of essential standards, so they immediately included them on the team draft. Two teachers included item 6 on their lists, and after discussion, members agreed to include it on the team list because they believed it would have important value to how students interpreted informational text. One of the teachers had item 10 on her list, so the team members debated whether to include it. They finally decided not to because they felt it was not something they would assess in isolation. (In fact, they decided to suggest that all the teams discuss the concept of text complexity and that it be a schoolwide focus.) After much discussion, the team decided not to include items 8 and 9 on the team draft. Thus, the team's essential standards draft for reading informational text was as follows (NGA & CCSSO, 2010a):

1. Determine the main idea of a text; recount the key details and explain how they support the main idea. (RI.3.2; endurance and alignment to high-stakes tests)
2. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 3 topic or subject area*. (RI.3.4; readiness and alignment to high-stakes tests)
3. Distinguish their own point of view from that of the author of a text. (RI.3.6; endurance)

We've developed a protocol for teams to use to do this work. We've based this protocol (figure 3.2) on Larry Ainsworth and Kyra Donovan's (2019) work as well as our own experiences of completing the process with numerous teams throughout the United States. See page 139 in the appendix for a reproducible version of this protocol.

<b>Step</b>	<b>Description</b>	<b>Expected Product</b>
<b>1</b>	The team discusses the four criteria it will use to choose its essential standards: (1) readiness for the next level of learning, (2) endurance, (3) alignment to high-stakes assessments, and (4) leverage.	Team members have a common understanding of how to determine which standards will be on their list and which ones will not be on their list.
<b>2</b>	The team considers how to chunk the standards if necessary. For example, in ELA, the first chunk can be the reading and reading foundations standards, the second chunk the writing standards, and the third chunk the language and speaking and listening standards.	The team members have a plan for the work ahead—which standards they will work through first, second, and so on.
<b>3</b>	All team members independently work through a chunk of standards and choose those that they believe fit one or more criteria.	Team members each mark their copy of the standards with those they believe are essential. Team members should complete this step while they are together so none of them spends a long time on this step. The more time a teacher takes, the harder it is to narrow the standards to the essentials.
<b>4</b>	The team builds consensus on its draft list of essential standards, making sure all team members participate in the process. Some standards will start with total agreement (everyone believes they are or are not essential), but the majority of standards will require discussion to reach consensus.	The team develops a rough-draft list of essential standards that represents the collective thinking after discussion.
<b>5</b>	The team members examine data of student performance in their content area or grade level. Are there areas of particular strength or weakness? If so, the team ensures its essential standards list reflects this by including additional standards to shore up the weaknesses.	Team members make changes to the draft list that reflect strengths and weaknesses.
<b>6</b>	The team uses documents released by the district or state to ensure that the drafted expectations align with the expectations for students. These documents might include test specifications, blueprints, or documents developed by the authors of the standards. For example, if assessment blueprints show an emphasis on text-dependent questions, it's important that the team reflects this emphasis in the draft list.	The team can change or add to the rough-draft list it puts together in order to effectively reflect what students must be able to do on high-stakes tests.
<b>7</b>	Team members work with the other teams in their school to vertically align their essential standards.	A final-draft list of essential standards for each team in the building is created, and it reflects the outcomes of the preceding steps.

**Figure 3.2: Protocol for identifying essential standards.**

Teams often ask us, “How many standards should we choose?” Because different content standards are written with different grain sizes, trying to identify a particular number of standards isn’t effective. We use the term *grain size* to explain that some standards are big and broad while others are descriptive of small pieces of learning. Take, for example, a first-grade social studies standard from the state of Oklahoma: “Describe how citizens within communities work together to accomplish common tasks and fulfill roles of authority” (1.1.2; Oklahoma State Department of Education, n.d., p. 11). This standard has a large grain size because there are so many smaller skills students need to learn to master this standard. The following first-grade foundational reading standard, on the other hand, has a much narrower grain size: “Know final -e and common vowel team conventions for representing long vowel sounds” (RF.1.3c; NGA & CCSSO, 2010a). However, teams aren’t usually very satisfied with the response, “There is not a magic number.” Instead, we look to Ainsworth and Donovan’s (2019) thinking, where they suggest that teams choose approximately one-third to one-half of their standards as essential. We also acknowledge that some schools will start this process small to become comfortable with the work. They might choose five standards for a semester. At the end of the first year, they’ll go back over the standards to choose additional essential standards.

## Describing Proficiency

We’ve emphasized the benefits of building consensus on essential standards, including helping teams have a common understanding of what proficiency looks like. In chapter 4 (page 51), we’ll address how teams discuss the proficiency of their learning targets—those incremental skills and concepts that lead to learning the standard. However, to do that work, teams must also agree about what proficiency looks like for the standard. We recommend that teams study and use the Depth of Knowledge (DOK) framework for this work. This framework helps teams effectively categorize activities according to the level of complexity in thinking—in other words, the rigor (Webb, 2002). In this framework, Norman L. Webb (2002) describes four levels of cognitive thinking that teams can use to classify the thinking level a student must use to master identified standards (see table 3.2, page 45). For example, the kindergarten standard, “Recognize and name all upper- and lowercase letters of the alphabet” (RF.K.1d; NGA & CCSSO, 2010a), is a DOK 1 (recall and reproduction). In contrast, consider this middle school science standard: “Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes” (MS-PS1-6; NGSS Lead States, 2013). This standard would be classified as a DOK 4 (extended thinking) because the student must engage in problem solving from conceiving a model all the way through testing the model’s effectiveness and reworking it if needed.

Another strategy teams can use to investigate what mastery of a standard looks like is to examine released items as well as other proficiency documents from their end-of-year tests.

## Considering Supporting Standards

Those standards not identified as essential standards are considered *supporting standards* and should be included in the unit plans that make up the curriculum of course- or grade-level content. Supporting standards are not typically assessed or reported on but used

**Table 3.2: Depth of Knowledge Levels**

DOK Level	Description of Rigor
1	Recall and reproduction: Students are asked to recall information or facts, read simple text, recall mathematics facts or know definitions and terms, or follow a simple procedure.
2	Skills and concepts: Students are asked to do simple reasoning (including using the information they know to compare and contrast, categorize, and so on) or follow a procedure with two or more steps.
3	Strategic thinking: Students are asked to use higher-order reasoning, such as to develop a plan to solve a problem with more than one possible answer or to plan a sequence of steps.
4	Extended thinking: Students are asked to complete tasks that require them to synthesize information from multiple sources, to develop an investigation, or to solve a problem with multiple conditions over a period of time.

*Source: Webb, 2002.*

to connect the instruction within a unit to the essential standards. They might represent content that teachers should introduce at a grade level rather than expect students to master. For example, consider these seventh-grade standards for reading and how they interact:

RI.7.8—Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and evidence is relevant and sufficient to support the claims.

RI.7.9—Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts. (NGA & CCSSO, 2010a)

If a team chooses standard RI.7.8 as an essential standard, the team might include standard RI.7.9 in the same unit but designate it as a supporting standard. The team members will spend more time teaching, assessing, and responding to evidence of student learning for standard RI.7.8 than the only one to two lessons they spend discussing standard RI.7.9. However, the instruction for standard RI.7.9 will focus on how the choices an author makes about what is emphasized and included in a text can change the information a reader comes away with. These discussions will enrich student learning about sound and relevant evidence needed to support a claim in a text. Standard RI.7.9 will not be formally assessed.

Consider another example from a kindergarten mathematics team:

K.OA.A.3—Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g.,  $5 = 2 + 3$  and  $5 = 4 + 1$ ).

K.OA.A.4—For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. (NGA & CCSSO, 2010b)

In this case, the team designates standard K.OA.A.3 as essential and standard K.OA.A.4 as a supporting standard. The team members will teach both but focus more lessons and time on the essential standard. While they expect all students to master the essential standard, they recognize that some students might not master the supporting standard because first grade will further build on it.

## Knowing Enough for the End-of-Year Test

Ainsworth and Donovan (2019) recommend that your team then align the draft of standards to what the state believes is important, as well as to the lists of essential standards developed by the grade levels or courses taught before and after yours. States demonstrate what they think is important with emphasis, or lack of emphasis, on certain standards in their state tests.

When teachers go through this process, many of them are concerned about how their students will do on the high-stakes state or provincial test at the end of the year. Douglas Reeves suggests:

What you will find is that a good set of [essential] standards will cover about 88 percent of the items on the state test, but not 100 percent. If you go after the extra 12 percent, you will have to cover many more standards and hence have less teaching time to thoroughly teach each of the [essential] standards. (as cited in Ainsworth, 2004, p. 97)

His recommendation is that students will do better on the state test as a result of more deeply understanding the most important standards.

Teachers can make sure their students master the important content they will need to know for the state test by ensuring the essential standards they've identified align with what will likely be asked on the state test. Most states publish a test blueprint that lays out what percentage of questions on the state test will come from each standard area or strand area. If teams have a similar percentage of essential standards for these areas, they will be placing a similar emphasis on the standards deemed most important for the test.

If your team is unsure about what a standard means or what it will look like if your students know it, examine the curriculum frameworks and released test items from your state or provincial documents. You will also learn how difficult the questions are and what methods the test authors use to assess the standard.

Teams can also look at the longitudinal data from their state or provincial tests, or other external tests, to see their typical weak areas. When one concept area has been weaker than other areas for a period of time, it may be because teachers aren't spending enough time on that concept or their students don't have solid prerequisite skills. For example, if team members see that their students have been weak in understanding informational text, then they should consider having a larger proportion of their essential standards in that strand. Remember that having more essential standards on a particular strand or concept means that the team will write common formative assessments and provide additional time and support to students for those standards. Thus, if students are underprepared coming into the subject or grade level, they will get the support they need.

## Checking for Vertical Alignment

Another important step is for your team to check your list of essential standards for *vertical alignment*. In this step, all teams in your school will share their lists of essential standards with the grade level before them and the grade level after them or, in high

schools, the course before and the course after them. We have effectively accomplished this step by having each grade level bring its draft of essential standards to a staff meeting. Each team reviews its list for the other teams in the room. The staff then “walk the wall,” looking for gaps and redundancies. For example, in an elementary school, the kindergarten and first-grade teachers will work together, the second- and third-grade teachers will work together, and the fourth- and fifth-grade teachers will work together. They ask each other whether the standards they’ve chosen are appropriate and if students will be prepared for the next grade level. Then they shift to having the first- and second-grade teachers and the third- and fourth-grade teachers ask themselves the same questions.

The easiest to spot are the redundancies. These redundancies occur when two or more teams have the same standard listed as an essential standard. In some cases, this is appropriate because one standard is at a higher rigor level than another, but in other cases, one standard is more of a review and is better listed as a supporting standard. It’s just as important that teams make sure their lists don’t have gaps where important standards have been left off. These gaps might happen, for example, if a team thinks its mastery level is to introduce a standard but the next grade’s teachers believe students should master it.

## Using a Set of Essential Standards Chosen by the State or District

In some schools we’ve worked with, teachers receive a list of essential standards for their work rather than an expectation to create a list themselves. Sometimes, a district committee chooses these standards, and in some cases, the state identifies the standards deemed most important. Teams are expected to adhere to the decisions a group of educators made so that all students in the district will have equity in what they learn. The individual collaborative teams haven’t had the rich discussions that occur when choosing essential standards. Because of this, it’s important that members work collaboratively with the essential standards aligning their units of study and provide time to teach, assess, and respond to the students who need more time to learn. For these schools, developing effective pacing guides (see the following section), unwrapping standards (see chapter 4, page 51), and planning units (see chapter 6, page 85) will provide opportunities to engage in similar rich discussions.

## Providing Time for Teaching and Responding With Pacing Guides

Once your team has created a list of essential standards, the team should then decide when to teach each of the standards and how long to take to teach, assess, and respond to each standard. This step requires teams to ensure they can fit all of what they believe is important into the time they have to teach it. We’ve worked with teams starting this process who have little or no agreement about how long they’ll take to teach a unit, as well as teams who have pacing guides that literally prescribe what to teach each day of a unit. We believe that neither extreme is effective for students. Instead, we suggest that teams start by developing or modifying a pacing calendar with a list of the units to be taught during the year. Ainsworth and Donovan (2019) define a *unit of study* as a “series of lessons, learning experiences and related assessments—intentionally aligned to a specific priority standard and related supporting standards—for an instructional focus that

may last anywhere from two to six weeks” (p. 21). Giving the units names that capture the gist of what the units will address can help make future discussions easier for team members, coaches, and administrators to connect to.

Teams start building consensus on pacing by considering which standards are (or should be) assigned to each unit. Notice that this means including both the essential standards and supporting standards. For each unit of study, the team members then determine the approximate number of instructional days they will need to teach, assess, and provide support to their students. Recall that in chapter 2 (page 23), we described the importance of teams building in time after each common formative assessment to respond to the results; teams respond by providing corrective instruction to students who aren’t proficient and extension to students who are proficient. Pacing guides should include these days, and we’ll describe how in more depth in chapter 6 (page 85). We also recommend that some flexible days be included so teachers can make their own decisions about teaching strategies. Teams should not write pacing guides so tightly that teachers *must* teach the same lesson on the same day. It is important, however, that one teacher doesn’t take considerably longer to teach the same content because then that teacher won’t be teaching it at the same depth.

Teams often ask us about how common the pacing must be to make common formative assessments work. Starting with the end in mind, teams should decide when they want to administer common formative assessments. Most of the time, teams should set a specific date for administering the common formative assessment so that they can quickly respond to the results. This way, team members can plan and execute their corrective instruction together. Then, teachers can pace their instruction in their own classrooms so they are ready to give the common formative assessment on the agreed-on day.

## **Identifying Schoolwide or Districtwide Essential Standards— Which Is Preferable?**

The decision of whether to identify essential standards at each school or across the district is a decision that must be based on a variety of factors. Having each school do this work is advantageous in that all teachers will have ownership over the final product. We also believe that the process itself helps build a shared understanding of what each of the standards means. On the other hand, if a representative group of teachers from across the district decides on the essential standards, this group will help ensure a more common district curriculum. These standards can be used to write district benchmark assessments because all teachers who teach a particular grade level or subject will be teaching a standard at the same time. If the district does this work with a representative group, it is important that all teachers have an opportunity to review and provide feedback on the list of essential standards before the final decision is made. Larry Ainsworth (2004) describes an “accordion process” that districts can use to gather input regarding essential standards (p. 32). In the first part of the accordion process, the representative teacher team drafts essential standards. The accordion then expands out as the draft documents are sent to the schools for review and feedback. The accordion then comes back in and the original team reviews and integrates the feedback. Finally, the accordion expands once more to send out the final drafts.

## Using, Reviewing, and Rewriting

The process of deciding what is most important to teach is not finished after teams go through all these steps because they must use the essential standards and be reflective about them for a period of time to ensure they've chosen the correct standards. As teams work together throughout the first year with their initial list of essential standards, they may discover that they have forgotten some important standards and some they've included should be cut. Your team should keep track of these new understandings so that you can revise your list for the following year.

You'll also discover that after a few years, as students move through grade levels with this common set of essential outcomes, they will be more consistently prepared for your course or grade level. Teachers will find they are spending less time in review and on prerequisite skills and more time on teaching the most important concepts.

Remember that your list of essential standards is the foundation for the rest of the work your team will do on common formative assessments. You may take longer than you expect to reach consensus on your first draft of essential standards. This is important work and worth the time it takes.



## CHAPTER 4

# Achieving Collective Clarity With the Unwrapping Process



### KEY POINTS

- Standards are often written in terms that can be interpreted differently from teacher to teacher.
- The unwrapping process is a strategy to achieve collective clarity and agreement regarding the overall intent and rigor of the standards and to identify the specific learning targets that lead to their attainment.
- By identifying specific learning targets through the unwrapping process, teams will be prepared to design aligned and accurate formative and end-of-unit assessments.

Chapter 3 (page 35) described a filtering process that teams can use to prioritize the vast number of standards and determine which are most essential. By determining the essential standards, a team can obtain a collective focus on what it is that all students must learn and, subsequently, determine the learning the team will monitor with common formative assessments. However, just distinguishing the essential-to-know standards from the nice-to-know supporting standards doesn't mean that everyone on your team will have the same interpretation of those standards, nor will it be easy to align your assessments with the standards as written.

Ever since schools began working with standards, whether national, state or provincial, or local, educators have struggled to make sense of their intent. When teachers tackle this work on their own, their independent examinations often result in interpretations that differ significantly from those of their colleagues in the classrooms next door—even if they teach the same grade level or course. Consequently, students receive instruction focused on different aspects of the standards, and they are subject to various expectations related to how they demonstrate proficiency. Why does this happen? First, the standards are typically written as conglomerations of skills and knowledge that provide a broad—and sometimes very ambiguous—picture of proficiency to be achieved by the end of the school year. Second, some standards embed terms that are difficult to measure, such as *understand* or *know*, so teachers could easily interpret them very differently. Third, teachers understand or interpret the standards using their individual

background information and knowledge of the content area, which of course differs from one individual to the next. The result of this isolated practice is that a school or team can't guarantee the same learning for all students in that grade level or course. This chapter will focus on strategies that are designed to help a team get on the same page about the intent of a standard, including the picture of proficiency when students attain it.

Many terms are used to describe the unwrapping process, such as *unpacking* and *deconstructing*.

They all mean basically the same thing and have the same goal in mind: giving all members a clear picture of the things the team wants students to know and be able to do—in other words, the learning targets contained within the standard.

As we shared in chapter 2 (page 23), formative assessments target the gathering of evidence of smaller learning targets during instruction, whereas end-of-unit assessments generally target the entire standard. So how do teams break down the standards to reveal those targets? We suggest that teams engage in the *unwrapping process*. The unwrapping process is a strategy through which a team identifies the smaller skills and concepts, or *learning targets*, needed to reach the performance expectations of the essential standard. By unwrapping the standards as a team, members each walk back to their classrooms with the same picture of what students should know and be able to do and, consequently, the same expectations for student learning. Popham (2003) puts it best when he states, "Teachers who truly understand what they want their students to accomplish will almost surely be more instructionally successful than teachers whose understanding of hoped-for student accomplishments are murky" (p. 16).

Having common clarity empowers a team to move forward not only in its instruction but also in its accurate assessment of learning targets. This clarity provides the basis for a team to take action so it can ensure students are actually attaining the skills and concepts it has prioritized. This is how the team actualizes a true guaranteed and viable curriculum.

You will see within this chapter that, in addition to forming this common instructional clarity, the unwrapping process sets the stage for creating *aligned* and *effective* common formative assessments. And in the end, teams can gather more specific evidence from students about what the students do or don't know so that teams can respond accordingly.

## Looking at the Structure of Your Standards

Regardless of the state or province in which you teach, generally, all standards reflect explicit or implicit knowledge that students must have as well as specific skills they should demonstrate. In most schools, grade-level or course teams have examined their standards and are familiar with their structure. However, if your team hasn't had the opportunity to do so, we strongly recommend examining the standards together to ensure familiarity with the way they are organized, the connections among them, and any clarifying information that is provided. Become familiar with the nuances and any additional documents or explanations that might be available to help clarify the expectations for students. Many states and provinces have written extensive curriculum frameworks that provide additional insight regarding the standards' intent, or they have

developed exemplars that communicate the expected quality of student work. If you work in an elementary setting and are required to teach multiple content areas, you may find that some standards are written in broad and overarching terms while others are written with high specificity. Taking advantage of these resources will help create a clear picture in team members' minds of what students are expected to know and be able to do. For instance, standards in the area of elementary literacy are typically organized into major strands of reading foundations, reading literature, reading informational text, speaking and listening, language, and writing. In science, the standards are typically organized by disciplinary core areas, such as physical science, life science, earth and space sciences, and engineering and technology.

The process of unwrapping is designed to clarify the steps along the journey of learning that students will take in order to reach the picture of proficiency—in other words, the mastery of the essential standards. If one envisions students on a journey toward proficiency in a standard, the students need to reach many landmarks (skills and concepts) to get to the final destination—the whole essential standard. Another visual that we like to reference is a stepladder. If you were to picture the prior year's learning for a skill set or standard at the bottom of the ladder, and the picture of proficiency at the top of the ladder, each rung of the ladder would represent a smaller piece of learning leading to the top.

Using a similar concept, Nicole Dimich (2015) shares a graphic organizer in her book *Design in Five* that she refers to as a *learning ladder*. The learning ladder illustrates the relationship between learning targets and the end in mind. Figure 4.1 provides an example of the learning ladder to show a progression of a standard in grade 1. Each rung of the ladder represents a smaller skill or piece of knowledge. The targets are organized from simplest at the bottom to most complex at the top of the ladder.

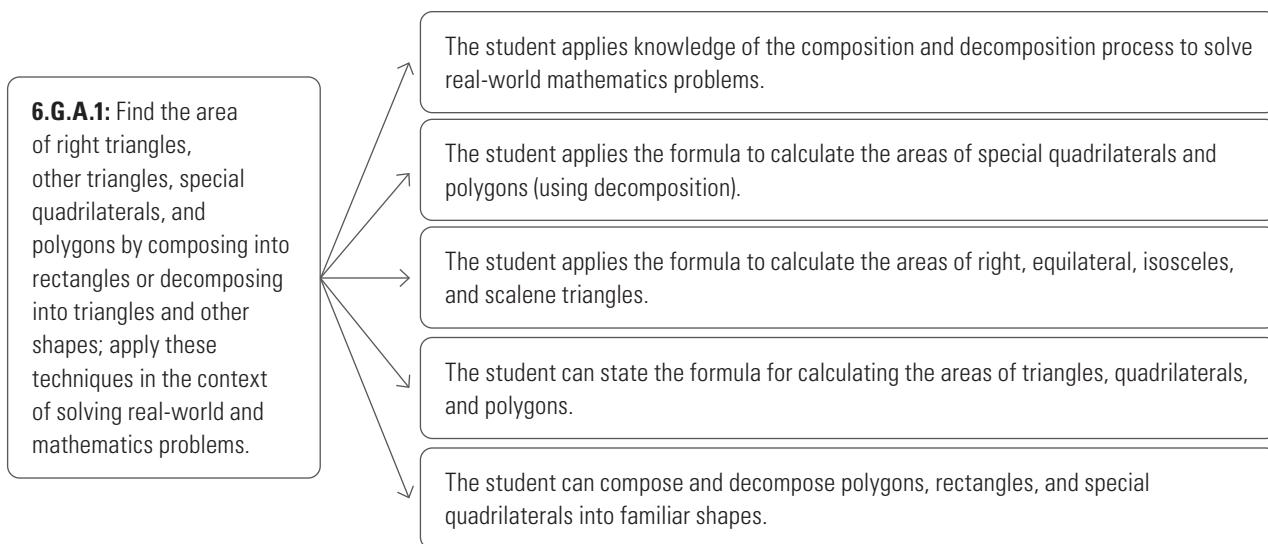
RI.1.2: *Identify the main topic and retell key details of a text* [emphasis added].

- The student can orally or in writing provide a simple summary of an informational text, including the topic or main idea and key details that support that main idea or topic.
- The student can find relevant key details in an informational text that support the main topic or main idea.
- The student can read an informational text passage and identify the main topic or main idea (what it is mostly about).

*Source for standard: NGA & CCSSO, 2010a.*

**Figure 4.1: Learning ladder arrangement of learning targets.**

Finally, we can use a graphic organizer to represent the process of moving from a standard to the component learning targets. The illustration in figure 4.2 (page 54) is an example of a visual map of the unwrapping process. We use a grade 6 mathematics standard to show how the learning targets might be arranged using a bottom-to-top or simple-to-complex progression.



*Source for standard: NGA & CCSSO, 2010b.*

**Figure 4.2: Graphic organizer arrangement of learning targets.**

Regardless of the visual organizer that resonates with a team, all the organizers focus on establishing the end in mind and identifying the smaller pieces of learning that will move students toward that picture.

## Choosing Standards to Unwrap

Before we describe the process, let's clarify which standards your team should unwrap. When identifying standards for formative assessment, you should focus on those standards that are most essential for your team to monitor. You and your team have already gone through a process of identifying your essential standards (must-know standards), distinguishing them from the nice-to-know supporting standards. Your focus for formative assessments should be on those essential standards. As a team, you can begin by unwrapping the essential standard or standards that you will teach, assess, and monitor in your upcoming segment or unit of instruction. We are not recommending that you unwrap every standard in your grade level or content area in one time frame unless you have extended time (for example, during summer professional development days) to devote to the process.

Following is the unwrapping process, step by step.

### **Step One: Annotate the Standards to Illuminate Key Words**

After a team decides which standard to focus on, the first step the team can take to achieve collective clarity on the standard is to break it down and organize the information. Here's a process we've developed. It involves annotating the standard, a strategy for focusing on the key words within the standard.

- **Circle or bold the verbs:** These words depict the smaller skills—in other words, the things students should be able to do that are contained within the standard.

- **Underline the nouns or noun phrases:** These words indicate the knowledge or concepts students should know (expressed as nouns) that are the focus of the standard.
- **Bracket any contextual information:** This context provided within the standard may include phrases that further define the content students will be working with in the standard (*numbers between 0 and 20, in stories or poems, and so on*).

Your team may use any variation of this process, but the key is to look closely at the standard and illuminate its essence—what it's really trying to say. This may sound a little awkward or contrived at first, but by highlighting key words contained within the standard, you will ensure that everyone on the team is focused on the same skills and concepts.

Here's an example from the Common Core State Standards for fifth-grade ELA: "Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts" (RI.5.5; NGA & CCSSO, 2010a).

Now here's the standard with the key words highlighted. We've bolded the verbs (skills) and underlined the nouns (knowledge or concepts) to be taught and assessed during instruction. We've also put brackets around the information that describes the context or conditions in which those skills and concepts are demonstrated. This standard, for instance, specifies that the skill is applied using two or more informational texts that reference the same events, ideas, concepts, or information:

**Compare** and **contrast** the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of [events, ideas, concepts, or information in two or more texts]. (RI.5.5; NGA & CCSSO, 2010a)

## **Step Two: Use the Annotations to Identify and Organize the Learning Targets**

Once you've annotated the standard, begin the conversation to pull out the learning targets, paying attention to the key words that jump out in the annotation. Use the question, What are the smaller skills and concepts that students will need to achieve this standard? to guide the team's conversation. Look at the verbs to brainstorm the skills. Look at the underlined nouns to identify information that students will need to know. As the brainstorming takes place, have a member of the team record the targets using chart paper, a graphic organizer, or a template. There are many variations of graphic organizers. The template in figure 4.3 (page 56) shows an example of how this standard might be unwrapped into learning targets organized into two major categories: (1) what students need to *know* and (2) what they need to *do*.

By examining the verbs *explicitly* stated in the standard the team identifies, students are expected to demonstrate two key skills: (1) comparing (finding things that are the same) and (2) contrasting (finding things that are different). Looking at the underlined nouns, the team members identify that students will need to know about the different structures used in informational texts. And the context of the standard clarifies that students will be working with two texts on the same event, concept, idea, or information.

<b>Essential Standard:</b>			
<b>Compare</b> and <b>contrast</b> the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of [events, ideas, concepts, or information in two or more texts]. (RI.5.5)			
<b>Learning Targets</b>		<b>DOK Level</b>	<b>Ideas for Assessing</b>
What will students need to <b>know</b> (what concepts, information, big ideas, rules, or facts)?	<p>How multiple sources of information on the same topic or event can be presented differently</p> <p>Why authors choose a particular structure to organize their information for the reader</p> <p>Common structures found in informational text and how they differ in how they present or organize information (chronology, problem/solution, cause/effect, and so on)</p>		
What specific or smaller skills will students need to <b>do</b> or <b>demonstrate</b> that lead to proficiency in the standard?	<p><b>Identify</b> the text structure used and information provided within each text.</p> <p><b>Gather and organize</b> information from the different texts.</p> <p><b>Compare and contrast</b> the information provided within the two texts (separately).</p> <p><b>Explain or communicate</b> in a summary how the two different texts relate information about a common topic, idea, or event.</p>		
What academic language or specific vocabulary will students need in order to demonstrate proficiency in this standard?	Text structure Compare (or comparison) Contrast Chronological Cause/effect Problem/solution		

Source for standard: NGA & CCSSO, 2010a.

**Figure 4.3: Example template to unwrap a standard into learning targets.**

### Identifying Implied Learning Targets

A benefit of unwrapping standards as a team is that you will get clarification on not only what is explicitly written in the standards but also what is *not* written. Most teachers have seen *umbrella standards*—standards written in such broad terms that they encompass a large number of skills and concepts. Standards written in this way rely greatly on teachers' ability to identify the subset of learning targets based on their content knowledge and prior experience. As a result, the implied skills and concepts leading to the standard might be perceived and addressed quite differently from teacher to teacher. To ensure that they guide students through the instructional process without significant gaps in concepts and skills, teachers must work together to fill in the gaps in the standards.

For example, the wording of the fifth-grade standard we just unwrapped says nothing about students *gathering and organizing information* in preparation for their comparison, but the team felt that was a necessary skill leading to students' ability to compare information from two different texts. Additionally, the standard doesn't explicitly state some of the knowledge that students need in order to effectively analyze text organization structures used by authors. However, as a team, the teachers went beyond what is explicitly stated and identified other concepts and skills that are necessary to reach the end in mind.

### **Identifying Academic Language and Vocabulary to Be Targeted**

We recommend that teams identify the academic language that will be taught and monitored during the instruction. This guides teams to ensure that students, especially those learning a new language or struggling with vocabulary, receive explicit instruction in academic language and that their attainment of those concepts is monitored. In the unwrapped example, the academic language identified for the standard includes the terms *chronology, cause/effect, problem/solution, compare, and contrast*.

The template in figure 4.3 is just one example of how teams organize their information as they unwrap standards. We have found that it serves as a helpful structure when first learning the process, and when teams feel that adjusting the template would better serve them, they can redesign or tweak it as needed. For instance, some teams may prefer to use chart paper when engaging in the unwrapping process. Other teams like to use the learning ladder (Dimich, 2015) or a graphic organizer to organize the targets in a progression from simple to complex, as depicted in the sixth-grade geometry example in figure 4.2 (page 54).

### **Dealing With Vague or Ambiguous Learning Targets**

Some standards make it absolutely clear to the reader which concepts and skills students should know and be able to do within a certain context. However, some standards are expressed in extremely broad or vague terms, and some are written in a way that is difficult to measure. Following are some considerations for teams working with standards that fall into either of these categories.

Occasionally, your team may encounter standards that contain unmeasurable terms, such as *understand* or *know*. While we wholeheartedly endorse the use of technology in the classroom, we know of no high-tech tool that automatically measures a students' knowledge or understanding! Teams need to convert such standards into clear learning targets that are tangible *and* measurable. Remember, the goal is clarity! Teams can clarify these vague learning targets by substituting verbs such as *know* or *understand* with replacements that are observable and measurable. For example, consider the following fifth-grade standard:

Understand how the British colonial period created the basis for the development of political self-government and a free-market economic system and the differences between the British, Spanish, and French colonial systems. (California Department of Education, 2000, p. 18)

Here's the unwrapped standard with substitutions.

- Understand *Summarize* the basis for:
  - The influence of the colonial period on political self-government
  - A free-market economy
- Understand *Compare and contrast* the differences among these colonial systems:
  - The British colonial system
  - The Spanish colonial system
  - The French colonial system

Replacing the word *understand* will not just help your team gain clarity in what to target as a skill; it will also jump-start the conversation about potential strategies for assessment. For example, in the sample standard, the substitutions of *summarize* and *compare and contrast* could lead the team to the idea of using a written assessment to describe the development of political self-government in the British colonial period. Or the team could decide to use a visual map, such as a Venn diagram, to compare and contrast the colonial systems.

### ***Step Three: Check and Clarify Alignment of Content and Rigor***

Now that you've broken down and organized the learning targets that came from the standard, we suggest that your team take a step back to examine its work. Look for any gaps in skills or conceptual understandings that are required to achieve the standard. As stated earlier, these gaps may not be explicitly stated in the standard language but are still necessary to consider in instruction and assessment. Next, as a team, look at the skills that emerged to determine the level of rigor contained in the learning targets. We recommend that teams use a common framework to examine the level of rigor to build consensus. Doing so will empower the team to begin distinguishing between simple and complex learning targets, which, as you'll discover later, will serve you well as you create a scoring rubric or scale.

Conversations about rigor can be challenging unless you have a framework and common language to describe rigor. Thanks to efforts across the United States to clarify learning outcomes, teams are engaged in these conversations, typically relying on the Depth of Knowledge framework (Webb, 2002), which we summarized in chapter 3 (page 35). Teams can use this shared language to reach consensus about the rigor of each target as well as the overall end in mind for the standard.

Why is it important that teams examine and come to a consensus about the level of rigor targeted within a standard? First, we want to make sure the teams provide instruction that guides students to the maximum level or ceiling of the standard. If teams gear their instruction below the intended level of rigor, they're not teaching to the standard. Second, when teams design their assessments, we want to ensure alignment of their assessment to instruction. For example, consider the following fourth-grade language arts standard: "Determine a theme of a story, drama, or poem from details in the text" (RL.4.2; NGA & CCSSO, 2010a).

The level of rigor examined in this standard falls into the realm of DOK 3 on Webb’s scale. It is asking students to make inferences about details within a poem or passage and extract a theme based on their content. However, if a team didn’t look at the details of this standard or it misinterpreted the standard’s full intent, the team’s instruction might not engage students in the higher-level-thinking skill of inferencing and only ask students to identify the theme. The goal of the team is to ensure alignment—in other words, the dot-to-dot connections among the learning targets, the instruction that takes place, and the assessment items that the team develops and implements.

Note that a single standard may contain several levels of rigor. For instance, the example in figure 4.4 provides targets derived from a literacy in social studies standard. Each target has its own level of rigor, and each builds on the previous one and leads to the students’ achieving the most rigorous aspect of the standard (DOK 3). By examining the levels of rigor together, the team members become clear about the expectations for student thinking throughout the journey of learning and prepare for the development of aligned instruction and assessment.

RH.6–8.7: Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

Learning Target	Level of Rigor or DOK
Identify map components.	DOK 1
Identify different types of maps and describe the information provided.	DOK 1
Use map components (such as axis titles, compasses, legends, and scales) to answer questions.	DOK 2
Construct a map to convey information about a specific region or topic.	DOK 3

*Source for standard: NGA & CCSSO, 2010a.*

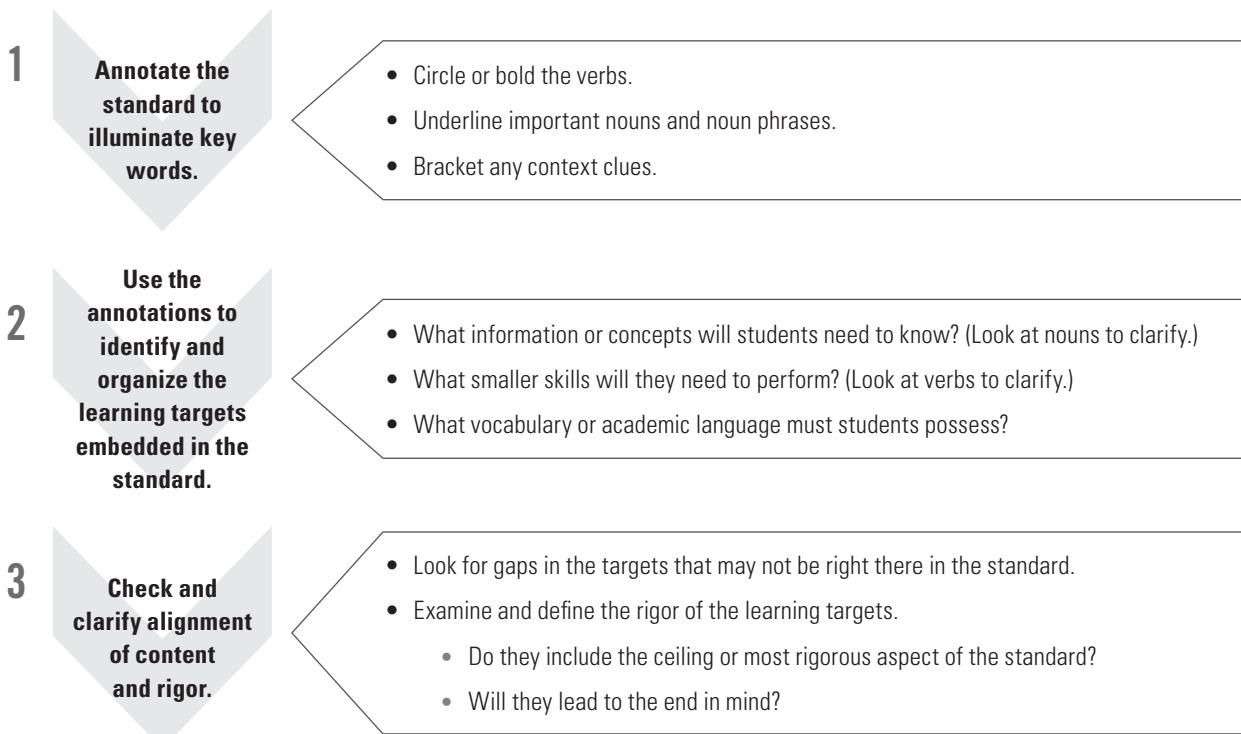
**Figure 4.4: A single standard with learning targets reflecting several levels of rigor.**

Figure 4.5 (page 60) provides teams with a visual summary of the unwrapping process.

Completing these three steps in the unwrapping process will give teams what they initially need to begin creating common formative assessments. But we recommend going further in your conversation about the learning targets by identifying the big ideas and essential questions related to your standards. These two additional elements will strengthen the clarity and consistency in how each member of the team supports and monitors student learning.

## Determine the Big Ideas

Grant Wiggins and Jay McTighe (2005), in *Understanding by Design*, describe *big ideas* as “linchpins,” the pieces of equipment that hold wheels on their axles. Big ideas hold conceptual knowledge and skills together and help the learner see and make connections. They represent the things you want students to really remember after you’re done teaching specific concepts and skills—the *important-to-know* information. We like to think of them as the “forest versus the trees” or the “moral of the story.”



**Figure 4.5: Visual summary of the unwrapping process.**

Here are some examples of big ideas.

- Estimation helps us determine the reasonableness of an answer.
- The use of resources by humans impacts the ecosystems found in nature.
- Good communicators choose their words carefully.

As you can see, big ideas are brief, and since their goal is to ensure that students grasp the most essential and overarching concepts related to the content, they should be written in student-friendly, understandable language. Here, the team's professional expertise comes into play. You'll work as a group to identify the deep understandings that frame or encompass the learning targets. Here are some guiding questions to spark your team's ideas.

- What is the *aha* material that we want every student to retain after our instruction?
- What concepts do we consider to be enduring understandings that extend beyond the instruction? In other words, could any concepts obtained in this unit apply to other areas of life over time?
- Do these big ideas serve as culminating nuggets of information?

### Establish Guiding Questions to Be Answered in Your Instruction

*Guiding questions*, sometimes referred to as *inquiry questions* or *essential questions*, help focus and energize students during instruction. When structured effectively, guiding questions lead students to seek and acquire answers—they direct students' search for understanding. In fact, guiding questions are often answered by big ideas (Ainsworth, 2003).

Here are some examples of guiding questions.

- How does the position of Earth in the solar system affect the conditions on our planet?
- What is healthy living?
- How can the structure of a text help us to understand information?

## Getting Started as a Team

Now that you and your team have walked through the unwrapping process and seen some samples of unwrapped standards, it's time to give unwrapping a try. We recommend that teams begin by selecting one essential standard on which they will focus during the upcoming unit of study. To assist the process, we include a suggested agenda your team can use to move through the process.

The agenda for unwrapping standards in figure 4.6 (page 62) is designed to help structure the work of your team as you begin unwrapping the standards. In addition, the unwrapping template in figure 4.7 (page 63) provides teams with a graphic organizer they can use to unwrap the standards. See pages 140 and 141 in the appendix for reproducible versions of these tools.

## Asking, “Now What?” When Unwrapping Is Completed

Hopefully, your team has found success using the unwrapping process to gain clarity about the skills and concepts the team will target in instruction and assessment. As you've probably figured out by now, the heart of the unwrapping process is in the conversations you've had as a team. You may have had some challenging moments in which you struggled to reach agreement. This is to be expected; it's how teams achieve an accurately and consistently delivered curriculum for students.

You may have also noticed that the unwrapping process revealed multiple layers of skills and concepts your team will be teaching in the coming year. In chapter 6 (page 85), we will share how teams can benefit from mapping out those skills and concepts in a pacing guide. Additionally, you'll see how to use a unit-design approach to address skills and concepts in a more integrated fashion, again, helping to organize instruction across the year.

In the end, teams can ask themselves the following two guiding questions if they are wondering whether they've effectively completed the unwrapping process.

1. Do you feel that your team has clear direction on the concepts and skills that members will teach and assess?
2. Did you get clarity on the academic language you want to reinforce in your instruction?

If the answer is no, take time to discuss areas that are still ambiguous and investigate released items from your state or provincial test to see their expectations for mastery. If the answer is yes, congratulations! You're ready to go into the next phase of your team's work and answer the question, How might we assess the learning targets we've identified through the unwrapping process? Chapter 5 (page 65) will assist your team in answering this question.

### Sample Agenda for Unwrapping Standards

#### Facilitator Notes

Remind members of the team about the goal of the session and the purpose and importance of unwrapping the standards.

- The purpose is to get team clarity of the essential standards through an examination of the skills and concepts, the big ideas, and potential essential or guiding questions that they address.
- Why is this important? The highest levels of learning occur when all teachers have agreement on the prioritized curriculum, and when students are clear about what they're trying to learn. By unwrapping the standards, we can all make sure we're focusing on the same learning targets that are contained within the standard. This will help us create aligned instruction and common assessments.

#### Materials and Equipment Needed

- Copies of the essential standards for the selected content area
- An unwrapping template or graphic organizer (copies for everyone or access to a shared electronic document)
- Reference materials (standards frameworks, DOK charts, curriculum guides, or released items from high-stakes assessments)
- Equipment or materials for the group process (Facilitator note: You can complete this process using a document camera, a shared electronic document, chart paper, or a whiteboard.)

#### Unwrapping Process

*Step 1: Annotate the standard to illuminate key words.*

- Make sure everyone has a copy of the selected standard from the essential standards.
- Ask team members to annotate the standard. (Circle the key verbs [skills] and underline the important nouns and noun phrases [concepts] contained within the standard. Put brackets around any information that describes the context in which a student must perform the skills [what types of problems or texts].)

*Step 2: Use the annotations to identify and organize the learning targets embedded in the standard.*

Using the graphic organizer or template, collectively identify and organize the concepts (the need-to-know nouns) and the skills (the need-to-do verbs). Team members continuously reference their annotated standard as well as other support materials to ensure that they are considering all the skills and concepts needed.

(Facilitator note: Unwrapping a standard does not mean one needs to include every prerequisite that a student must bring to the table. There is an assumption that students enter with knowledge and skills from the previous grade. Identify the academic language that teachers must reinforce or establish.)

*Step 3: Check and clarify alignment of content and rigor.*

Examine the list of identified skills and discuss the level of thinking associated with each (using DOK or other shared language to describe the level of thinking).

#### Optional Steps (suggested for once the standard is unwrapped)

*Step 4: Identify the big idea behind the standard.*

*Step 5: Identify essential questions that will lead to the big idea and serve as a focus for instruction.*

**Figure 4.6: Protocol for unwrapping a standard.**

<b>Annotated Essential Standard:</b>			
<b>Learning Targets</b> ( <i>Arranged from bottom to top or simple to complex</i> )		<b>DOK Level</b>	<b>Formative Assessment</b>
<b>What must students know?</b> Information, definitions, processes, concepts, and big ideas that students will know or understand			
Academic Language and Vocabulary			

Figure 4.7: Unwrapping template.



## CHAPTER 5

# Designing Quality Common Formative Assessments

### KEY POINTS

- Assessment items should be designed or selected based on how their content and rigor align with the learning targets.
- Common formative assessments should be designed with both validity and reliability in mind.
- Common formative assessments should provide teams and students with actionable information about learning.

After reading and using the strategies in chapter 4 (page 51), you and your team know how to achieve a better understanding of your state or provincial standards and, through the unwrapping process, how to identify the learning targets that are most important for your students to learn. Identifying these targets is the important first step to designing quality assessments because the targets to be assessed must be clear to both the students and the teachers. While the task of writing common formative and end-of-unit assessments takes place in the context of unit planning, this chapter will discuss the specific steps and considerations for designing assessments. These steps and considerations include writing or choosing good items, knowing what to include in the assessment, and making sure the data you collect will really help your team know what to do next to help your students.

In our work with teachers who are designing and writing common formative assessments, we've heard that teams want to know how to develop practical, easy-to-use assessments that provide information about student learning and help determine the next steps for classroom instruction. They want to develop assessments that are informative and actionable, but that don't rely on difficult design strategies and statistical analysis. And while we know that assessments may not be perfect when first designed, our goal is to make sure assessments are as accurate as possible so that teams gather good information from the beginning. In other words, we want them to be valid and reliable measures of student learning.

## A Word About Validity and Reliability

Let's first consider what the terms *valid* and *reliable* mean for common assessments designed by collaborative teams. *Valid* implies that the assessment is truly measuring what

the team thinks the students should have learned. For example, if your team has unwrapped a science standard that addresses knowledge about “permeability across a cell’s membrane,” the team has identified two levels of conceptual understanding. The first learning target is that students know the definition of *permeability*, and the second target is that students can describe what it means and what it looks like at a cellular level. The assessment must be designed to measure both targets, each of which has a different level of rigor. When assessment items match a learning target in terms of both content and rigor, the assessment can be considered valid. Effective teams intentionally plan their assessments so that all members know the targets being assessed and the level of rigor for each target. This empowers teams to develop accurate assessment items and design assessments that are indeed valid.

Teams also want to know that their assessments are *reliable*—that the students who appear to have learned the assessed concept have actually learned it, and that the students who appear to have not mastered it truly haven’t. Teams want to know the results they are getting are accurate so they can make decisions about what to do next that will improve student learning. Assessments are reliable when they accurately and consistently measure student learning and rule out students’ guessing or misunderstanding the question being asked. We suggest that teams generally have three or four selected-response items per learning target to ensure that a student actually knows the information (beyond a guess). Meanwhile, an assessment needs only one or two constructed-response items to be considered reliable, since students are showing their thinking. A team’s assessment plan can also reflect these considerations for reliability by including the type and number of items the team will use—in other words, the design is intentionally focused on ensuring that there are sufficient items to reliably assess student learning.

Now that we’ve reviewed the underlying guiding principles of well-designed common assessments, let’s walk through the process for designing quality assessments. Within each of the steps, we will also provide some insights that teams can use to refine their processes and their assessments over time.

## Step One: Decide What to Assess

In chapter 4 (page 51), we shared how teams unwrap standards to get a better understanding of their meaning. As part of that process, teams identify specific learning targets and engage in conversations about the level of rigor for those targets as well as the overall end in mind. The targets become the basis for the common formative assessment plan. However, a team does not necessarily have to assess each learning target it identified. The team designs the assessment around those targets deemed most critical for students to know and be able to do. The goal is that by assessing student learning at the learning target level using formative assessments, teams can more easily diagnose learning difficulties and intervene appropriately.

To determine what to assess, look at the learning targets your team identified for one unit of instruction through the unwrapping process. Consider which of those learning targets have the most impact on student learning. The following questions will help you decide.

- Which targets are most likely to cause certain students difficulty?
- Which targets are prerequisite skills for information to come later in this unit?
- Which targets are absolutely necessary for students to know?

Once you have identified the most important learning targets, your team must discuss the critical issue of cognitive demand—what level of thinking do you expect from your students for each learning target? Without this important conversation, your assessments might not meet the criteria for being valid.

Something to keep in mind is that the team will have more than one common formative assessment for some units of instruction. This means that the team will look at all the identified learning targets to be taught in the unit and will decide when to pause to do a common formative assessment. Take, for example, this middle school science standard: “Develop and use a model to describe the function of a cell as a whole and ways the parts of cells contribute to the function” (MS-LS1-2; NGSS Lead States, 2013). The team digs into the evidence statements that accompany the standard to know more precisely the expectations behind this standard. The team members see that students will need to understand the difference between plant cells and animal cells as well as understand the role of specific organelles, such as the cell membrane. As they plan their instruction, they develop a lab experience for students to look at various cells under a microscope so that the students learn how to distinguish plant cells from animal cells. The team members decide to develop their first common formative assessment for this unit on that concept. They then plan another common formative assessment later in the unit, after students have experienced additional labs about osmosis and diffusion. For both of these common formative assessments, students are asked to consider their cell model and how the new concepts change their cell model. The summative assessment requires them to use their final cell model to answer questions about the function of a cell as a whole and how different organelles contribute to that function.

The next step is for your team to design an assessment plan for that unit of instruction: decide how many formative assessments to give, when to give them, and which specific learning targets to include in each assessment.

## Step Two: Decide How to Assess

When deciding which types of assessment strategies to use, your team must consider how well each type will measure student learning of a particular learning target, as well as factors such as how quickly you will be able to analyze and respond to the information. In addition, because your team will develop and use these assessments, you must consider how effectively you will be able to collaboratively and consistently score assessments so that action can be taken. Three main item types are used by teams: (1) selected response, (2) constructed response, and (3) performance task. Teams should select an item type based on its ability to accurately measure the target and also its efficiency in doing so. Let’s quickly review the features and considerations for each type.

### ***Selected-Response Items***

*Selected-response items* are generally defined as assessment items that ask students to select the correct answer from information provided to them. Examples include multiple-choice, matching, and true/false questions (Ainsworth & Viegut, 2006; Popham, 2003; Stiggins, Arter, Chappuis, & Chappuis, 2009). In general, selected-response items can work well for formative assessments because they are easy to grade, and teams get their

results back quickly. In other words, they are very efficient. They also allow teams to use multiple items for each learning target; there are generally at least three or four items for each target. Even if a student misunderstands one of the questions, the other items can be used to verify the student learned the information. However, experts note that it is difficult or impossible to assess very high-level thinking using this type of question (Ainsworth & Viegut, 2006; Popham, 2003; Stiggins et al., 2009).

### ***Constructed-Response Items***

*Constructed-response* (also called *extended-written-response* or *supply-response*) items are those that ask students to provide their own response to a question or prompt (Ainsworth & Viegut, 2006; Popham, 2003). These include short and long essay responses. However, not all constructed-response questions have to include writing. For example, teachers who ask their students to complete a graphic organizer (such as a Venn diagram) or solve a mathematics problem showing their work are using a constructed-response assessment. These assessments provide a window into students' thinking because the students can't simply select an answer; they have to demonstrate that they know a concept or can perform a skill. Additionally, these assessments help teachers see misconceptions students have about important concepts because students must reveal their thinking in their answers. Mathematics teachers often want to see the work involved when students solve a problem so that they can identify exactly what students misunderstood.

Constructed-response items require more time for teachers to score, and the results of scoring can be uneven if teachers apply the rubric differently. In addition, students' writing skills can skew the results; students who have difficulty writing may appear not to have learned some targets that they have, in fact, learned. If teams want to understand student thinking about a target, however, constructed responses are the best way to get at that information. In our experience working with common formative assessments, we've found that the advantage of gaining insight into student thinking is often invaluable and worth the time it takes to score a constructed-response question. A common formative assessment with only one constructed-response question may provide more information than ten selected-response items.

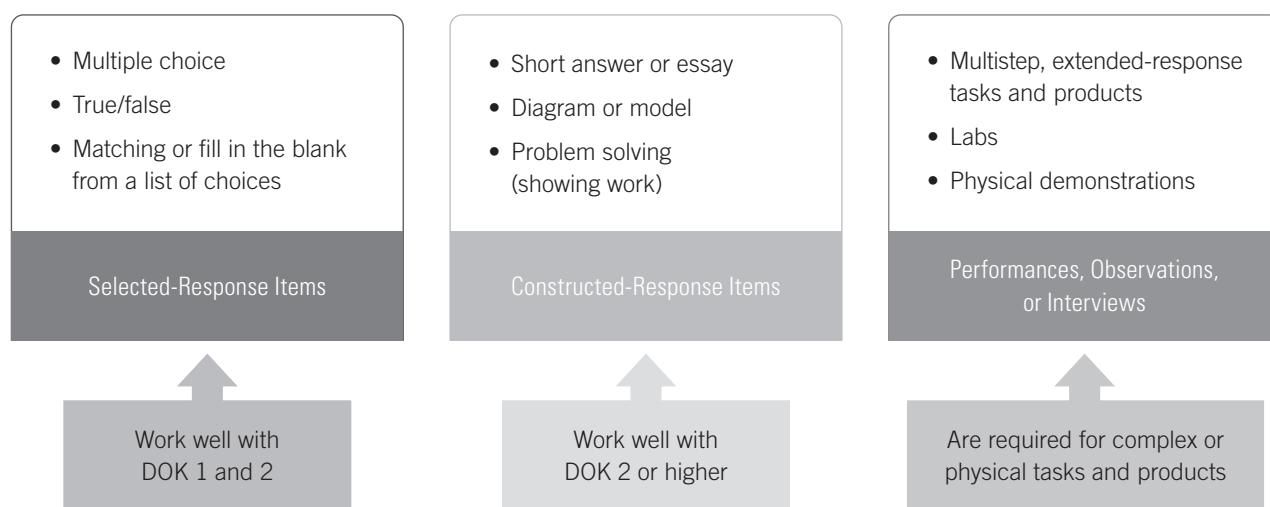
### ***Performance Task, Observation, or Interview***

The third category of assessment type is *performance task, observation, or interview* (Ainsworth & Viegut, 2006; Stiggins et al., 2009). Performance assessments ask students to demonstrate their understanding of a learning target by performing in front of the teacher, who evaluates them against a rubric, or by creating a product to demonstrate mastery of the skill. This is often the most accurate way to assess students' ability to perform skills such as shooting a layup in basketball, effectively including perspective in a drawing, or reading a piece of text with fluency and accuracy (Stiggins, Arter, Chappuis, & Chappuis, 2004).

While most teams benefit from periodically using performance tasks to accurately gauge student learning, other teams, particularly those in younger grades (like kindergarten), heavily rely on observations and performance tasks because their students cannot yet respond independently to selected- or constructed-response items. Clearly, performance assessments take more time to administer, and teams must plan ways to

keep the rest of the class engaged while the teacher is observing and scoring each student performance. Also, because observations can be more subjective by nature, the team must build common clarity about the desired quality of student performance and codevelop the rubric to ensure consistent evaluation.

Sometimes, teachers are concerned that they are not using the right type of assessment—that using selected-response items, for example, is inferior to using other assessment measures. Rick J. Stiggins, Judith A. Arter, Jan Chappuis, and Steve Chappuis (2009) weigh in on this issue when they conclude that there is no best type of item and that all the types are effective when used in the correct way. Using them in the correct way means that teams consider the rigor of the learning target they are assessing and the likelihood that an item type will effectively measure student thinking on that target. For example, learning targets at DOK levels 1 and 2 often result in items that have one correct answer. In contrast, targets at DOK levels 3 and 4 often need items that have more than one correct answer. Therefore, if the target is a DOK 1 or 2, a selected-response item might work well, and if the target is a 3 or 4, the team will do better with a constructed-response question. Figure 5.1 provides an overview of how each type supports assessments of different DOK levels.



**Figure 5.1: Types of assessments and DOK levels.**

When teams are getting started with assessment design, we suggest that they explore all the types of assessments to know which ones will work best for the different types of learning targets they teach. A summary of that discussion might look like the example in table 5.1 (page 70).

## Step Three: Develop the Assessment Plan

The process of developing an assessment plan helps a team create a specific blueprint for its assessments with consideration of both validity and reliability. When developing an assessment plan, the team should consider each identified learning target and its level of rigor or DOK, decide how to assess that particular target (including the number of items needed to be reliable), and decide how long the whole assessment will take

**Table 5.1: Example Summary of an Item-Type Discussion**

Type of Assessment	Examples in Practice	Advantages	Disadvantages
<b>Selected response</b>	Multiple choice Matching True/false	Is easy to score Doesn't take a lot of time for students to complete Requires no judgment for right or wrong answers Allows for multiple questions per learning target Is good practice for current high-stakes tests	Is difficult to write for higher-level thinking Is easy for students to guess the right answer
<b>Constructed response</b>	Short answer Extended response Essays Graphic organizers Diagrams	Allows one to see student thinking Helps one find student misconceptions Assesses higher-level thinking May be more like future high-stakes tests	Is time-consuming to take Is time-consuming to grade Needs collaborative scoring for common formative assessments Is harder for students to demonstrate proficiency if they find writing difficult
<b>Performance</b>	Reading fluently Giving a speech Throwing a ball Creating a meal Making a prototype	Is the only way to see performance skills Can be engaging for students	Is time-consuming to take Can create classroom management issues Needs collaborative scoring for common formative assessments

to administer. We've found that using a template greatly assists teams to create this plan. We've slightly updated the template from the one contained in this book's first edition to ensure that teams engage in critical conversations about proficiency for each target. For instance, a team may identify the number of selected-response items needed to demonstrate proficiency or provide a link to a rubric that describes the qualities of a proficient product that students will create in response to a constructed-response item.

Our updated template appears in figure 5.2. See page 142 in the appendix for a reproducible version of this template.

Assessment-Planning Template					
Learning Target	Level of Cognitive Demand				What Proficiency Will Look Like
	DOK 1	DOK 2	DOK 3	DOK 4	

**Figure 5.2: Assessment-planning template.**

Also when developing an assessment plan, your team should consider two important factors in assessment design: (1) making sure the important learning targets you identified are included in the assessment and (2) making sure the items you write assess student learning at the cognitive level you identified in your unwrapping template. A quality assessment is one that includes items written around targets the team feels are the most important; it assesses at the level of thinking the team has agreed is important. To plan effectively, your team should revisit the unwrapped standard you are teaching to consider both the explicit and implicit learning targets you've identified. This might be where you'll notice that you have two or more targets that are of different levels of cognitive thinking but related to the same learning target.

The following is an example of how a team might complete its assessment plan. In this example, a ninth-grade ELA team references its unwrapped standard: "Determine an author's point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose" (RI.9–10.6; NGA & CCSSO, 2010a). The learning targets the team members identified are as follows.

- Determine the point of view or purpose in an informational text.
- Analyze how an author uses rhetoric to advance that point of view or purpose.
- Identify an author's point of view or purpose in a text.
- Recognize examples of rhetoric in context.
- Identify various kinds of rhetoric an author can use.
- Define *rhetoric*.

Knowing that the term *rhetoric* is new in ninth grade, the team decides that its first common formative assessment should focus on its simple learning targets of "define *rhetoric*" and "identify various kinds of rhetoric an author can use." Figure 5.3 (page 72) is the team's assessment plan. Note that the team members outline how they will assess each target as well as their agreed-on level of proficiency for each target.

In another example, a third-grade team is teaching the mathematics standard, "Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line" (3.NF.A.3a; NGA & CCSSO, 2010b). The team identifies three learning targets: (1) know the term *equivalent fraction*, (2) recognize equivalent fractions using area models, and (3) understand two fractions are equivalent when they occupy the same point on a number line. The team members discuss the fact that they want to know which students can apply the operation correctly (lower cognitive demand) and which can apply the operation in a situation where the student must choose the solution pathway (higher

Teams that are new to the common formative assessment process may feel somewhat overwhelmed when first going through the process. Although having more than one common formative assessment in a unit may ultimately be the most desirable strategy, teams may find that one common formative assessment is all they have time to do during the first year of implementation. When they enter year two of implementation, they can use that common formative assessment and add another to their repertoire.

Learning Target	Level of Cognitive Demand				What Proficiency Will Look Like
	DOK 1	DOK 2	DOK 3	DOK 4	
Know the following vocabulary words: <i>rhetoric, ethos, pathos, and logos.</i>	Four multiple-choice questions				Three of four correct
Identify and explain the rhetorical techniques an author uses in a text.		One constructed-response question			Proficiency as defined by the rubric

**Figure 5.3:** Sample assessment plan for a ninth-grade ELA team.

cognitive demand). The team members decide to give a common formative assessment after they've worked with area models to determine equivalent fractions and then again after they've taught that equivalent fractions occupy the same place on a number line. In this case, the team decides to use the assessment plan in figure 5.4 for its first common formative assessment.

This team can then use the results of the constructed-response items to identify which students are able to go beyond the anticipated learning targets.

Learning Target	Level of Cognitive Demand				What Proficiency Will Look Like
	DOK 1	DOK 2	DOK 3	DOK 4	
Identify equivalent fractions using area models. (lower cognitive demand)	Four constructed-response questions				Three of four correct
Identify equivalent fractions in real-life situations using area models. (higher cognitive demand)		Two constructed-response questions			Both correct or one minor error

**Figure 5.4:** Sample assessment plan for a third-grade mathematics team.

As we shared at the beginning of this chapter, teams need to use a sufficient number of items to gather reliable information. As a reminder, we suggest that teams have three or four items per learning target when using selected-response items (multiple choice, matching, or true/false) and one or two items when using constructed-response items. Teams also must use formative assessments frequently in order to monitor their students' learning in a timely fashion. To accomplish both of these outcomes, keep assessments short, but include enough items so that you gather accurate information about student mastery of learning targets. In general, most formative assessments should focus on one to three learning targets.

## Step Four: Determine the Timeline

To decide when your team should administer a common formative assessment during a unit of instruction, members must consider the frequency of your team meetings. If your team meets only once a week, you'll find that weekly common formative assessments are impossible, as it typically takes a meeting to write the assessment and a meeting to plan the response. However, if your team meets more frequently, and you've gotten some experience writing assessments and planning responses, you may be able to give one common formative assessment a week. Some teams have multiple meetings a week and can schedule a time to meet to discuss the response plan more quickly. Keep in mind teams that regularly do this work are more efficient than those just starting to learn the process. What's important is that the team gives a common formative assessment once it has taught essential targets, *not* that it does so according to a prescribed schedule. We've worked with schools that expect teams to give common formative assessments once a week, once every two weeks, on alternate Fridays, and so on. These expectations diminish the effectiveness of this work.

With this in mind, we encourage teams to write and administer formative assessments at least every three weeks and as frequently as every week, with each formative assessment written around three learning targets or fewer. When teams use assessments with this frequency, the information they gather is much more precise, and therefore, their response with students is much better.

## Step Five: Write the Assessment

There is a lot of information available about how to write quality assessment items. We offer some general guidelines to help you be certain your team is gathering reliable information about what students have learned.

### ***Writing Selected-Response Items***

A critical issue with selected-response items is that sometimes students who know the information answer incorrectly because they did not read or understand the question itself. When writing selected-response questions, teams should consider the following strategies to avoid confusing students.

- Include the entire question or statement in the stem of multiple-choice questions so students read through the entire statement before they begin to try to answer (Brame, 2013; Gareis & Grant, 2008, 2015; Popham, 2003; Stiggins et al., 2009). For example:

Which of the following strategies will work best to assess students' ability to evaluate information from the text?

- a. Selected-response items
  - b. Constructed-response items
  - c. Performance items
- Use parallel construction for answer choices in multiple-choice questions (Brame, 2013; Gareis & Grant, 2008, 2015; Popham, 2003; Stiggins et al., 2009).

- Be cautious when choosing difficult vocabulary or complex sentence structure (Sitar, 2015; Stiggins et al., 2009). The following is an example item with sentence structure that confuses the test-taker:

Having difficult vocabulary in a question will often confuse students, which will reduce its reliability, so it's important to—

  - a. Include a sufficient number of questions
  - b. Not use vocabulary the students won't understand
  - c. Eliminate all questions that assess vocabulary
- Use boldface type and italics for words that students might easily miss while reading the answer stem, such as *most likely* or *best choice* (Gareis & Grant, 2008, 2015; Stiggins et al., 2009).
- Write statements in the positive so the reader knows what the question is asking. For example, write, “Which one of the following is an example of . . . ?” rather than “Which one of the following is *not* an example of . . . ?” (Gareis & Grant, 2008, 2015; Popham, 2003).
- Keep the list short when writing matching questions. If you need to use more than one matching set, do so (Gareis & Grant, 2008, 2015; Popham, 2003; Stiggins et al., 2009). For example, you could break fifteen items into two groups—one group with seven items and one group with eight items.

Because the purpose of the assessment is to determine what students still need help with, your team also must make sure students are unable to guess the correct answer in selected-response questions. Consider the following advice when writing these types of questions.

- Don’t include throwaway answer choices or choices intended to amuse students in multiple-choice questions. When students can easily eliminate an answer choice, their likelihood of guessing an answer is greater, thus making the data gathered less reliable (Gareis & Grant, 2008, 2015; Popham, 2003; Stiggins et al., 2009). While “eliminate the answers you’re sure are wrong and guess between the rest of the answers” is a skill students need to know for high-stakes testing, it is not something teams want students to do on formative assessments.
- Make sure all answers for multiple-choice questions could possibly be correct, but they are not so close to correct that a student who understands the content has a difficult time deciding the *best* answer (Brame, 2013; Gareis & Grant, 2008, 2015; Popham, 2003; Stiggins et al., 2009).
- When writing multiple-choice items, use the common misunderstandings students have about the learning target as the distractors (the wrong answer choices). By looking at the item analysis, teams know exactly why students missed a particular problem. Rebecca Kopriva (2008) suggests that there are three types of distractors teams might use when writing mathematics problems. The first is a distractor that provides evidence the student didn’t understand the question being asked, the second is a distractor that reflects a common misunderstanding about the problem being solved, and the third is the result of “backsolving”—trying out each possible solution. Your team may want to consider this approach to deciding what distractors to include.

- Avoid equal-sized lists in matching questions so that students can't match all the items they know and then guess between the leftover items (Gareis & Grant, 2008, 2015; Popham, 2003; Stiggins et al., 2009).
- Put answer choices in a logical order (alphabetical, small to large) in selected-response questions so that students can't just guess where the answer might be. For example, you want to avoid the student thought, "There hasn't been a *b* response for a while, so I'd better choose *b* if I don't know the right answer" (Gareis & Grant, 2008, 2015; Popham, 2003; Sitar, 2015; Stiggins et al., 2009).

Remember that the purpose of formative assessment is to determine what students know and what they are still having trouble understanding. By keeping these strategies in mind, your team can make the most of the data coming from your assessments.

### ***Writing Constructed-Response and Extended-Response Items***

The recommendations for making selected-response questions easy to read and understand apply to constructed-response questions as well. However, the experts have some additional recommendations.

With some constructed-response and written-response questions, it is important to give students a context to use for their answers (Gareis & Grant, 2008, 2015; Popham, 2003; Stiggins et al., 2009). For example, if a question asks students to discuss discarded plastic's impact on ocean life, the item should specify the parameters for gathering information. Do the students need to use only the text stimulus for their information? Can they use their own previous knowledge? In this case, the question might read, "Use the information from the text 'Yummy Scent of Some Plastic Trash Makes Fish Think It's Food, Study Finds' (Newsela, 2022) to make an argument for researching how to prevent algae growth on plastic." This item clearly asks students to use the article's information rather than their own background knowledge. Another example prompt might point students in a particular direction by reminding them about how an idea was presented in class: "In class, we studied how authors use signal words to guide the reader. As you read this text, identify signal words the author uses, and identify at least one place where a signal word might make the text easier to understand."

In addition, make sure the text the students need to read or the question or prompt itself hasn't already been discussed in class (Gareis & Grant, 2008, 2015; Popham, 2003). For example, if you ask about the theme of a novel you've been reading as a class, the students could use the information learned during class discussion. Rather than asking the students to analyze the theme, you are simply asking them to recall information. Instead, use a new short piece of text with enough information so students can determine the theme. Finally, make sure that the directions for the assessment are clear and easy to understand, and leave space for your students to fully answer the questions.

### ***Designing Performance Assessments***

Stiggins and colleagues (2009) recommend teams use performance assessments when the learning target is a skill that can best be assessed by observing the student perform

that skill. They note that with performance assessment, students should know how they will be evaluated (the scoring rubric) during their performance (Stiggins et al., 2009).

Students should not be given a choice among different performance tasks unless all tasks have the same level of difficulty and are designed to assess the same learning targets. Otherwise, students could choose to do a task they know and understand and skip a task they don't know (Stiggins et al., 2009).

### ***Meeting Additional Guidelines for Writing Assessment Questions***

When writing assessments, teams should pay attention to the stimulus—the information that precedes the actual question. In ELA, for example, this might be a piece of text or a video. In mathematics, it might be a data table or chart, a graph, or a word problem. In science, it might be a text, a diagram, a data table or graph, or even an experimental design. In social studies, it might be a chart or graph, a map, a primary source document, or a text. When using texts, teams should make sure the texts are written at the appropriate grade level and aligned with the learning target. Remember that common formative assessments are generally written around a specific reading skill or strategy. Therefore, the text must provide the appropriate opportunity to assess that strategy. For example, if a team's members have taught the text structure *cause and effect* and want to see whether students can analyze a piece of writing and use it to aid comprehension, then they must find a grade-level-appropriate piece of text written in the cause-and-effect format.

Since the Common Core standards were released in 2010, many websites have become available for teams to use to get appropriate stimulus information. Some of our favorites appear in table 5.2.

**Table 5.2: Websites for Appropriate Stimulus Information**

<b>Website</b>	<b>Content Area</b>
CommonLit ( <a href="https://commonlit.org">https://commonlit.org</a> )	ELA
Newsela ( <a href="https://newsela.com">https://newsela.com</a> )	ELA
ReadWorks ( <a href="https://readworks.org">https://readworks.org</a> )	ELA
Illustrative Mathematics ( <a href="https://illustrativemathematics.org">https://illustrativemathematics.org</a> )	Mathematics
Stanford Graduate School of Education ( <a href="https://snapgse.stanford.edu">https://snapgse.stanford.edu</a> )	Science

### **Step Six: Review the Assessment Before Administration**

This step may seem trivial, yet it is important that your team closely review the assessment prior to giving it to students. Are the directions clear? Will students know what you are asking them to do and why? Good practice includes listing the learning targets on the assessment itself, followed by the questions related to each target. This helps students clearly understand the context of the questions. Teams should also review the expectations for how much time administering the assessment will take.

## Step Seven: Set Proficiency Criteria and Decide How to Gather the Data

When writing and using a common assessment, teams must build consensus on what they believe proficiency looks like for an essential standard and the learning targets that are embedded in it. This starts when teams unwrap their standards and identify the level of cognitive demand (DOK) for each learning target. This process continues as the teams develop the items for the assessment and also as they develop answer sheets and scoring guides.

*Answer sheets* should include the correct answers the team is looking for as well as the possible incorrect answers. In our work, we've often seen teams skip this step, and when they sit together to plan their response, they realize everyone scored the answers differently. Creating this document ensures that team members agree on what students must include in their answers to be correct. This is especially important for constructed-response questions. Teams new to common assessment might find it helpful to practice collaborative scoring before they score their own student work. With collaborative scoring, the team members all score an answer individually and then each reveal their score. The purpose, of course, is to all agree to score in the same way. Another way to practice collaborative scoring is to develop a set of exemplars of both strong and weak student work on a specific learning target. This works well, especially for writing learning targets, and team members can share the exemplars with students so that they know what is expected of them.

Similarly, teams must also create *scoring guides* for any questions that have more than one part. Consider, for example, an item that asks students to compare and contrast two pieces of text. If students are to use a Venn diagram to show their thinking, the team must determine what a correct answer might look like. How many ideas must the students find the pieces have in common? How many differences must they find? We often see scoring guides used for mathematics tasks where there are multiple steps to a problem. Take, for example, an item that asks students to draw a model, solve a problem, and explain their thinking. To be considered proficient, does a student have to accurately complete all three of these steps? Figure 5.5 (page 78) is an example of a scoring guide an eighth-grade team might develop if it asks students to delineate an argument in a text.

The team might agree that a student must have at least seven out of eight points to be proficient. This allows the student to inaccurately cite one piece of evidence, but students must get both the argument and the claims correct.

Another part of determining proficiency happens during step three, the assessment-planning process. In our assessment plan shared earlier in this chapter (figure 5.3, page 72), the last column asks the team to decide how many questions a student must answer correctly or what type of answer the student must give to be proficient on the items related to each learning target. For selected-response questions, decide how many correct responses students must have for each learning target. For example, if there are four multiple-choice questions, students who get at least three correct will be considered proficient. A scoring rubric is necessary to determine proficiency for constructed- and written-response items. For example, your team might decide that on a six-point rubric, a level 4 will be proficient.

**Learning target:** Delineate an argument in a text.

Argument:	2 points	
Claim one	Claim two	2 points each
Evidence and support for claim one	Evidence and support for claim two	1 point each

**Figure 5.5: Example scoring guide from an eighth-grade team.**

When scoring constructed-response items, written products, or the proficiency of performances, teams need to evaluate proficiency in a consistent and objective manner. Their best chance for establishing a common picture of proficiency is through the use of a rubric—a coherent set of criteria for students’ work that include descriptions of levels of performance quality (Brookhart, 2013). In addition to building a shared picture of proficiency across all members, creating or identifying rubrics sets the stage for teams to more effectively respond to specific student needs based on the demonstrated evidence of quality. Chapter 6 (page 85) will provide more specific processes that teams can use to create shared rubrics.

## Common Questions Regarding Assessment Design

When working through the assessment design process, teams often have many questions. Following are some general responses to questions we’re frequently asked as we support team design and use of common assessments.

## **Should Teams Design Items That Reflect High-Stakes Assessments?**

While we support that teams embed opportunities for students to “build the muscles” for high-stakes assessments, these opportunities should not overshadow the power of quality formative assessments. As teams write assessment questions, they should constantly reference the end in mind for student learning. This picture of proficiency is often clarified when teams examine released items from high-stakes assessments. Teams should make a plan to ensure they ultimately prepare students to demonstrate that level of proficiency, but they should also know formative assessments are stairsteps to that picture. We suggest that teams consider formative assessments as the smaller stairstep measures in the journey of getting to the top of the ladder. Instead of designing every formative assessment for the purpose of test prep, we suggest that teams incorporate items formatted similarly to high-stakes assessment items into their end-of-unit or summative assessments. Ultimately, however, teams need to keep referencing the end in mind—if it is to have students demonstrate higher-level thinking that can only be assessed using constructed-response items, teams should ensure that they still gather information in that fashion.

## **Can Teams Use Assessments From Existing Sources, or Do They Always Have to Create Them?**

When teams get started with this work, they commonly want to jump-start the process by using assessment items from a textbook, a test bank, or online resources. In chapter 2 (page 23), we included the phrase *team designed* in our definition of a common formative assessment and explained that this can mean a team writes the items *or* carefully chooses the items to match the learning targets the team has taught and wants to assess. By actively analyzing items that are available (versus blindly using them), teams will increase the likelihood that their chosen items align with the learning target they are assessing and that the items are written at the appropriate level of rigor.

Unfortunately, we’ve seen teams choose items from test banks that match the content they teach but not the rigor of it. Consider, for example, this middle school social studies target: “Analyze the ideas and principles contained in the founding documents of the United States” (SS.CV.4.6–8.MdC; Illinois State Board of Education, 2017). If the team members see a question asking what is meant by *separation of powers*, they might be inclined to choose it for their assessment. However, the target asks students to analyze the principles found in the documents. The item isn’t a very good fit. Can the members tweak it to make it fit? If not, they must either write a question themselves or continue looking at different items.

Test banks often identify their test items by standard. However, the team might not be at the point of assessing the full standard; it might be seeking formative items that are specific to one target within that standard. For example, what if a science item provides several data charts and graphs related to a declining deer population and it asks students to make a claim about the decline’s cause as well as to support that claim with evidence from the charts, the graphs, and what the students know about ecosystems? This item won’t be a good formative item. If students aren’t proficient, there might be several reasons why. Do they not know how to interpret one or more of the tables or graphs?

Do they not understand the energy flow in ecosystems? Again, teams benefit by “kicking the tires” of any assessment even though they may not need to invent the wheel.

We also suggest that teachers bring any assessments they’ve used in the past for consideration—you don’t have to reinvent the wheel if it’s already working. These assessments provide a starting point for the team’s work. However, it is important that the team completes the assessment plan first before choosing or writing items. Then, as the team writes the assessment, each teacher must make sure that students will be able to read and understand the included items. These multiple points of view will make it easier to spot confusing items. Additionally, as part of the protocol for analyzing data (referenced in chapter 7, page 99), teams keep the feedback from their already-administered assessments about what worked and what didn’t. The following year, the team can then update the assessments rather than start from scratch.

## How to Assess the Assessment

Even when you use the steps and guidelines we have presented for designing an assessment, you will find that your assessments don’t always work the way you predict. In our work, we’ve found this true for many teams. Questions they thought were absolutely clear to students are misread or misunderstood. Answers to constructed-response questions they predicted don’t show up in students’ work. When this happens, it’s time for a periodic reflection about the quality of the assessments you’re using. We like to use the two-part checklist in figure 5.6 to help teams discuss both the design of a common formative assessment and the way they are currently using the assessment. (See page 143 in the appendix for a reproducible version of this checklist.) The Design portion looks at specific ways the assessment is put together and how the questions are written. The Use portion of the checklist reminds team members about how they administer the assessment, how they evaluate student work, and how they use the data to respond.

The sample protocol for developing an assessment in figure 5.7 (page 82) outlines the seven-step process for developing an assessment, highlighting the main tasks of each step. Your team can use this abbreviated tool for reference as you begin the process of developing your own common formative assessments. See page 144 in the appendix for a reproducible version of this protocol.

## Lessons Learned From Remote Learning

In the spring of 2020, teams across the United States and around the world had to quickly move to teaching online as schools closed due to the COVID-19 pandemic. While some schools had been using digital tools for years, many teachers needed to learn how to teach, assess, and plan responses online. Focusing on assessment, we learned a lot from this experience.

- **Teaching without assessing isn’t very effective:** Because the amount of instructional time available was significantly reduced, some teachers initially skipped assessments to make sure they were able to teach all their standards. They quickly learned that it was difficult to know when to move on without assessments to guide them.

Design	Yes	No
The targets come from identified power or essential standards.		
The assessment is written around learning targets, not standards.		
The assessment is written around a small number of learning targets.		
The purpose is to provide time and support rather than a grade.		
The type of assessment item the team uses matches the learning target's level of thinking.		
The team writes the selected-response items to find out what students know, not to trick them.		
Constructed-response items provide context and specific directions to make expectations clear to students.		
The team agrees on what proficiency looks like for each target.		
The team creates an answer guide for its assessment.		
Use	Yes	No
The team collaboratively writes and administers the assessment in a common way.		
The team collaboratively scores items using a common rubric.		
The data meeting happens as quickly as possible after the assessment.		
All teachers bring their data, including student work, to the data meeting for discussion.		
The teachers use data for planning what to do next, not to judge their effectiveness.		
Students are involved; they know the learning targets and receive feedback on their work.		
Students get more time and support based on the results.		
Teachers reassess students after corrective instruction.		
Students who master learning targets receive more challenging work after teachers analyze the data.		

Source: Bailey & Jakicic, 2019, p. 86.

**Figure 5.6: Common formative assessments checklist.**

- **Grades aren't the reward we thought they were:** Schools reduced the emphasis on or even eliminated grades as a reporting process but saw engagement continue for most students.
- **Assessment is about evidence:** While they are easy to administer and score digitally, multiple-choice assessments can only give you limited information. Teachers initially jumped on these assessments because lots of digital tools are available for using multiple-choice questions in a game-like environment (such as Quizlet and Kahoot!). Recognizing the limited information these tools provided about student thinking, teams moved to other tools for more robust information.
- **Constructed-response questions don't have to have written responses:** Digital tools such as Flipgrid and Pear Deck allow students to verbally explain their answers or submit a drawing (model) of their thinking.
- **Feedback is the key to promoting learning:** Video feedback can be more effective than written comments (Yuhas, 2018).

**Facilitator Notes**

Remind team members that the purpose of each common formative assessment is to provide data back to the team about which students have or have not mastered each of the learning targets being assessed. The assessment needs to be short and easy enough to score so that the team can respond quickly to the results.

The team will respond to students who need additional time and support around a specific learning target, those who might benefit from additional practice, and those who would benefit from opportunities for enrichment and extension.

**Materials Needed**

- The unwrapped organizer for the standard(s)
- The template for the assessment plan

**The Design Process***Step One: Decide What to Assess*

Consider all the learning targets you have found during the unwrapping process that are being taught during this part of the unit. Decide which of these targets to assess. Remember you do not have to assess every learning target.

Consider:

1. Which targets are most likely to cause certain students difficulty?
2. Which targets are most important or prerequisite skills for information to come later in this unit?
3. Which targets are absolutely necessary for students to know?

*Step Two: Decide How to Assess*

For each learning target, make sure team members agree on the expected level of thinking for mastery of that target. For each learning target, choose the most appropriate assessment method: selected response, constructed response, or performance assessment. Make sure that the thinking level you're expecting can be assessed with the type of assessment you've chosen.

*Step Three: Develop the Assessment Plan*

Complete the assessment plan. Decide what type of items and how many items you will use to assess student learning on each target. Consider how long the assessment will take to administer and how much time teachers will need to score the results.

*Step Four: Determine the Timeline*

Decide the date or range of dates for administering the assessment and the date for the next meeting to discuss results. Remember to consider scoring time before establishing the date for the meeting to discuss the data.

*Step Five: Write the Assessment*

Use the guidelines for quality item writing while writing the assessment.

*Step Six: Review the Assessment Before Administration*

Review the assessment to make sure that the directions are clear and that students will understand what you are expecting from them during the assessment.

*Step Seven: Set Proficiency Criteria and Decide How to Gather the Data*

Determine what the score for proficiency will be so that data can be reported back by learning target and by student.

*Source: Bailey & Jakicic, 2012, p. 107.*

**Figure 5.7: Sample protocol for developing an assessment.**

## Implications for Singleton Teams

Designing formative assessments as a team of singletons takes a different approach. Depending on the membership of a singleton team, the common formative assessment may have different questions from course to course or grade level to grade level. What will be common, however, is how questions are asked or what proficient answers should contain. Take, for example, a grades 3–5 vertical team with one teacher per grade level. Members have agreed they are going to teach students the mathematical practice that asks them to “critique the reasoning of others,” and they will assess how well students can use this practice. The team members discuss how best to teach students this target. They explore various ways they expect students to do this work, including by deciding whether the answer is correct, using objects and drawings to explain their reasoning, working through the answer to see if there is a missing step or a calculation error, and deciding whether the solution pathway makes sense. Next, they discuss various ways to assess this learning target, including by having students find the “error problem” (they ask students to review a tentative solution and look for a reasoning error) and evaluate a student’s response to a problem (they give students an explanation for the solution to a problem and ask them to critique the reasoning). The assessment items, then, include grade-level mathematics content but ask the students similar critiquing questions.

In another example, a seventh-grade interdisciplinary team works collaboratively on a reading standard related to an author’s point of view or purpose. As they discuss how they will teach the standard, members dig into specific ideas such as loaded language, the purpose of including certain ideas and excluding others, and how the author distinguishes his position from others. For their assessment, they agree that there will be only one item and that they will find a piece of text about a current topic of interest. One teacher will administer the assessment, but all the teachers will come together as a team to score each student’s response and plan how to respond to the entire group.

In a final example, a mathematics teacher and a science teacher work together to teach students how to read and interpret data tables and graphs. In this case, the team may have other members (such as a social studies teacher and an ELA teacher), but these teachers may not need to be involved with this assessment. The mathematics and science teachers, therefore, work separately for this cycle of instruction and put together the common formative assessment that will include items asking students to respond to questions about specific tables and graphs.

## Why Value Outweighs Time

A benefit of working collaboratively is that team members become better item writers and assessors by sharing ideas and information. Teams often want to know how to get started on this process and how to be as efficient as possible. We recommend that, at least early in your work, the entire team works together to plan and write the assessment. The value of learning together often outweighs the time it takes to create collaboratively. As teams get started, they may take more time to design and write their assessments than they expect, and they may find they can’t complete as many assessments as they’d like. We believe that this initial learning process makes quality more important than quantity!

By thoughtfully designing assessments around specific learning targets and gathering and analyzing the data, your team will know exactly what your students have learned and what they are still experiencing difficulty understanding. This allows you to develop a strong instructional response to ensure you give students additional time and support that will meet their learning needs. In chapter 6 (page 85), we will build on the processes addressed in this chapter to discuss how teams incorporate assessment design in their overall backward-planning process, as well as how they design scaffolded assessments, scales, and common rubrics.

## CHAPTER 6

# Going Deeper— Advanced Processes for Designing Assessments

- 
- KEY POINTS**
- Teams incorporate their assessment planning within the context of unit pacing and design.
  - Teams can proactively embed scaffolds within their assessments.
  - Teams can build and use scales and scoring guides to assist in their design of assessments and their analysis of student outcomes.
  - Co-created rubrics help clarify the picture of proficiency and provide a basis for consistent and precise monitoring of student learning.

This chapter extends team learning beyond the general design process and examines strategies for deepening clarity and integration of the component parts of assessment. First, we'll examine the integration of assessment design into the overall unit-planning process. Next, we'll take a look at how teams can refine their assessments through proactive scaffolding. We'll also discuss the role of proficiency scales to enhance both the design of assessments and analysis of student learning data. Finally, we'll discuss how teams can create common rubrics that bring clarity and consistency to the measurement of student proficiency.

### Planning Assessment Within Backward-Designed Unit Planning

Although we presented the assessment design process as a separate chapter, the reality is that the processes addressed so far are very connected. In reality, effective teams address all the pieces together and integrate them as they pace and plan units of instruction. To facilitate this integration, we strongly suggest that teams engage in backward planning of units, incorporating their assessment design process and all the other components of planning with the end in mind.

In their seminal work on curriculum design, Wiggins and McTighe (2005) describe their recommended process through which teams *backward plan*. Rather than starting

their planning by choosing activities and topics, as is done in more traditional curriculum design, teachers start with a list of outcomes they expect students to know at the end of the unit. These would be their essential standards and success criteria. Then they identify smaller pieces of learning through the unwrapping process—in other words, the learning targets. Once teams have identified the expected learning targets, they next develop the evidence they will use to measure whether students have reached those outcomes—the assessments. And then finally, they plan lessons and activities they will use for instruction. According to Ryan S. Bowen (2017):

Our lessons, units, and courses should be logically inferred from the results sought, not derived from the methods, books, and activities with which we are most comfortable. Curriculum should lay out the most effective ways of achieving specific results. . . . In short, the best designs derive backward from the learnings sought.

Robert J. Marzano (2017) argues that teachers need to move even further away from traditional instructional design—from *lesson planning* to *unit planning*:

Across the United States, the vast majority of teachers must design and oftentimes turn in lesson plans for each subject area each day. The problem with this practice is that daily lesson planning is oftentimes simply a bureaucratic ritual with which teachers comply. Indeed, the concept of a lesson plan makes little sense since a teacher executes a lesson within the context of a set of lessons, oftentimes referred to as a *unit*, that serve a common purpose. (p. 107)

When teams create unit plans, they are using all their previous work on essential standards, pacing guides, unwrapping, and assessment planning. In the unit plans, teams consider both the end-of-unit test and the points when they will stop to administer common formative assessments. They move from planning about standards to planning about learning targets and develop a sequential list of the targets they will teach. Unit plans become the documents that teams can use to house their work. This way, the teams can access their work in the future, and other teams and other staff members can access it when they have questions about a grade level or course's timing or content of instruction.

Figure 6.1 features a template that collaborative teams can use to develop their unit plans. (See page 145 in the appendix for a reproducible version of this template.) Whether teams use our template or develop their own for their unit plans, the key is that they include information about all the standards they will teach (both essential and supporting) and the number of days the unit will take to teach. They must include the learning targets they've identified through the unwrapping process and their DOK levels; the sequence of instructional steps they will use to teach the learning targets, including the number of days they will need to teach each of them; and the dates when they will administer common formative assessments. It's important to note that not every teacher on the team has to teach the same thing at the same time, but the beginning and ending dates must line up, as must the dates of the common formative assessments.

In addition, figure 6.2 (page 89) provides a unit-planning workflow that outlines the process in greater detail and references the critical questions of learning that teams answer as they backward plan. See page 147 in the appendix for a reproducible version of this workflow.

**Question 1: What do we want students to know and be able to do?**

**Step 1:** Identify the essential or power standards for the unit.

**Essential standards taught in this unit:**

**Supporting standards taught in this unit:**

**Question 2 (summative or end of unit): How will we know if they have learned it? What evidence will tell us they meet the standards by the end of the unit?**

**Step 2: Discuss evidence of the end in mind (summative measure)**—How you will know if students achieved these standards? What type of task could they perform or complete by the end of the unit? With what level of proficiency? With what type of problem or text (stimulus)? (Note: Use released items, and look at prior and subsequent grade levels or other information to gain insight about the types of tasks you expect students to perform and the stimuli [problems, text, and so on] they will use.)

**Step 3: Share the specific learning targets (bite-sized pieces of learning) that lead to students accomplishing the unit goals. Be sure to identify the main ideas emphasized in the unit.** (Note: Not everything is written in the standard—teams should use their professional judgment to identify the learning targets. Read “between the lines” of the standard language.)

Learning Targets	Assessment Items
<b>What should students know?</b> (Information, definitions, processes, concepts, main ideas that students must know or understand)	Big idea:
<b>What should students be able to do?</b> (Performance, skills, or actions students must do or demonstrate)	
<b>What academic language / vocabulary should students acquire and use?</b>	

Figure 6.1: Five-step team unit-planning process.

Continued →

**Question 2.5 (formative): Where in the unit does it make sense to see if our students are learning what we are teaching?  
What evidence will we collect along the way?**

**Step 4: Do the following—**

- Identify specific targets the team will commonly assess (formatively). Your team should collectively monitor learning targets that are typically challenging for students.
- Identify or develop brief but aligned assessment items that will provide useable evidence to the team about their students' understanding and skill. Discuss the level of proficiency you would expect for the assessment item or items.

**Step 5: Plan the sequence of instruction and the timing for common formative assessments**—As the team designs the plan, they should include the quality instructional practices that support high levels of student learning (Question 2.5: What are best instructional practices or strategies we will embed in this unit?).

<b>Sequential Plan for Unit Instruction and Monitoring Learning</b>		
<b>Days</b>	<b>Lessons or Activities</b> (What learning targets will you teach? How will you teach them?)	<b>Embedded Assessment Checkpoints</b> (What are the formative and summative checkpoints?)

Notes:

Workflow for Backward Unit Planning	
<b>Question 1:</b> <i>What do we want students to know and do (in this unit)?</i>  Note: Teams may need to first unwrap the standard or standards to ensure that the end in mind reflects all aspects of the standard.	<p><input type="checkbox"/> <b>Step 1: Identify essential standards being addressed in this unit.</b></p> <p><input type="checkbox"/> <b>Step 2: Define the end in mind.</b> What will students be able to do by the end of this unit?</p> <ul style="list-style-type: none"> <li>Describe the end-of-unit performance task or evidence of meeting the standard or standards.</li> <li>Reference the end-of-year picture of proficiency, released high-stakes assessment items, exemplars, and so on.</li> </ul> <p><input type="checkbox"/> <b>Step 3: Determine or design the end-of-unit summative assessment (if not already developed), determine when and how it will be given, and develop the criteria for proficiency.</b> If the assessment is already developed, make sure it aligns with the end in mind. Teams can also set a SMART goal at this point.</p> <p><input type="checkbox"/> <b>Step 4: Unwrap or unpack the standards to identify learning targets (the ladder of learning that will take students to that end in mind) and their level of rigor (their DOK level).</b> If the standards were previously unwrapped, examine them to clarify or revise. Clarify academic language.</p>
<b>Question 2:</b> <i>How will we know they learned it?</i>	<p><input type="checkbox"/> <b>Step 5: Determine the priority learning target or targets for formative assessment, and plan the assessment.</b> (Which learning targets will be pivotal in building student proficiency, or which are most challenging for students and therefore must be collectively monitored?)</p> <p><input type="checkbox"/> <b>Step 6: Design the common formative assessment items to measure whether students acquired the different learning targets; determine when you will give them, how you will administer them, and the agreed-on criteria for proficiency or quality for each learning target.</b></p>
<b>Question 2.5:</b> <i>What are the instructional practices and process we will use to ensure students learn at high levels?</i>	<p><input type="checkbox"/> <b>Step 7: Discuss the instructional flow for the unit and effective instructional activities and strategies that will be used.</b> Specify the timing of all common formative assessments, and ensure that the standards and learning targets are addressed. Build in response time.</p> <ul style="list-style-type: none"> <li>Consider proactive differentiation and scaffolds.</li> <li>Consider students' language needs.</li> <li>Consider best practices for quality instruction, including engagement, empowerment and ownership of learning, and feedback.</li> </ul>

Figure 6.2: Workflow for backward unit planning.

## Creating Scaffolded Assessments

Over time, teams can become more precise and intentional in their design of assessments by proactively considering the scaffolds students need to proficiently demonstrate essential concepts and skills. Karin Hess (2018) has referred to this process as *strategic scaffolding*, which means “designing intention steps into the assessment to ensure that all students can eventually complete the complex task independently” (p. 22).

In their book *Mathematics Assessment and Intervention in a PLC at Work*, Timothy D. Kanold and colleagues (2018) highlight that teams should use this important thought process when determining the types of mathematics tasks that instruction and assessments should include. Kanold and colleagues (2018) describe two different types of mathematics tasks:

*Lower-level-cognitive-demand tasks* typically focus on memorization by performing standard or rote procedures without attention to the properties that support those procedures (Smith & Stein, 2011). *Higher-level-cognitive-demand tasks* are those for which students do not have a set of predetermined procedures to follow to reach a resolution or, if the tasks involve procedures, they require that students justify why and how to perform the procedures. (p. 22)

Teams might therefore use a combination of lower-level-cognitive-demand and higher-level-cognitive-demand tasks on a common formative assessment to see what a student has or has not yet learned. A student may be able to follow a procedure or algorithm to solve a problem but not be able to solve a mathematics task that requires picking a solution pathway and determining which operation to use.

Let's look at an example. At Emerson Elementary, the fifth-grade team is teaching the following standard in mathematics: "Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators" (5.NF.A.1; NGA & CCSSO, 2010b). When the team members investigate the released items from their state test, they see that students must be able to identify equivalent fractions that have different denominators, answer word problems requiring them to add or subtract fractions with unlike denominators, and examine an answer a student has given to determine whether the solution is accurate.

In a traditional school, the team would wait until the end of the unit to give a test covering all the learning targets taught during this unit. Consider, instead, what happens when the team members create a common formative assessment, which provides better information and leads to stronger interventions while they are still teaching this standard. Together, the members plan to give an assessment with four simple questions asking students to determine a like denominator for pairs of fractions and rewrite each pair as equivalent fractions. They will also ask students to solve two word problems requiring them to find like denominators and add or subtract the fractions given in the problems.

Based on the results of this assessment, the team will be able to easily group students who couldn't find equivalent fractions as well as students who couldn't choose a correct solution pathway and find like denominators to add or subtract fractions. The team will then provide the students with more time and support. If the team waited until the end of the unit and gave a test on adding and subtracting fractions, it would know which students didn't understand how to add and subtract fractions, but these students may have missed other learning targets taught toward the end of the unit.

In addition to scaffolding assessments to measure the learning targets that lead to student proficiency, your team may want to design assessment items that actually assess your students at a level *beyond* proficient. This extended view of assessment can provide useful information about your most able students and provide insight into those who will benefit from additional enrichment activities during a particular unit. Here's an example of how this might work.

The fourth-grade team at Elm Place Elementary had been teaching the standard, “Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context” (L.4.5a; NGA & CCSSO, 2010a). In addition to the items that asked students to identify similes and metaphors from a piece of text, and to explain what those similes and metaphors meant, the teachers added a constructed-response question asking students to develop a narrative paragraph that included both a simile and a metaphor. The team would use the additional constructed-response item to identify students who could benefit from an extension activity while other students continued to work toward proficiency on the learning target.

This fourth-grade team’s assessment plan would look like the sample in figure 6.3.

Learning Target	DOK 1	DOK 2	DOK 3	DOK 4	What Proficiency Looks Like
Identify similes and metaphors from text.	Five matching questions				Four of five correct
Explain the meaning of common similes and metaphors.		Four multiple-choice questions			Three of four correct
<b>Beyond-proficiency item:</b> Develop a narrative paragraph with both a simile and a metaphor.			One constructed-response question		Proficient on the rubric

**Figure 6.3: Sample assessment plan for a fourth-grade team.**

## Using Proficiency Scales to Plan Assessments

An additional team strategy for designing assessment items in a scaffolded fashion is to use proficiency scales. “A proficiency scale is a tool that displays a collection of related learning targets and scores for determining a student’s current level of performance” on a standard (Hoegh, 2020, p. 4). The scale is used to describe student learning against the entire standard, and it can also be used to structure formative assessments that focus on measuring specific targets. The creation and use of a proficiency scale rely on teams’ utilizing the information they gained while unwrapping their standard. In the process, teams examine the learning targets they identified when they unwrapped the standard and use a generic proficiency scale to categorize the targets based on their level of rigor or cognitive demand. When a team constructs a scale, it accomplishes several things.

- A clearly defined pathway or progression of the knowledge and skills students need to achieve a standard
- A communication tool to describe a student’s proficiency
- A framework for instructional design, including assessments

- A learning map for students
- A guide for intervention and extension

Figure 6.4 outlines the generic scale teams reference during that discussion.

Score	Description
<b>4.0</b>	Complex content—a performance beyond what the standard requires
<b>3.0</b>	Target content—the level of learning required for all students
<b>2.0</b>	Simple content—basic knowledge or skill necessary for mastering the target content
<b>1.0</b>	With help, partial success with score 2.0 content and score 3.0 content
<b>0.0</b>	Even with help, no success

*Source: Adapted from Heflebower, Hoegh, Warrick, & Flygare, 2019, p. 8; © 2007 by Marzano & Associates.*

**Figure 6.4: Generic proficiency scale.**

Using this format, the team can examine each of the learning targets it has identified to determine within which proficiency level each falls. The team lists all the explicit learning targets coming from the standard as well as the implied targets.

Consider the third-grade example in figure 6.5. In this example, the team is organizing the targets it has identified for the following literacy standard: “Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events” (RL.3.3; NGA & CCSSO, 2010a).

Using the scale, a team can develop its assessment plan by focusing on specific items that measure the 2.0, 3.0, and 4.0 targets reflected in the scale. This strategy allows the team to design with the smaller steps in mind and ensure that the assessments will provide information on the targets students have mastered and the targets for which they need additional support. The team can adjust the template to serve as its assessment plan by adding two columns as shown in figure 6.6. These columns help the team align its assessment plan with each learning target.

So how do teams build scales? Here is a suggested process that teams can use to organize their learning targets in a scaled approach.

Unwrap the standard to be scaled. Arrange the learning targets from simple to complex. Organize the targets into the proficiency scale template in the order that follows.

1. Write the level 3.0 learning targets that represent the *target concepts and skills* needed to demonstrate proficiency. Be sure these represent the highest rigor—in other words, the end in mind for the standard.
2. Write the 2.0 learning targets (those that represent the *simple concepts and skills* needed to achieve the standard).
3. Write the 4.0 learning targets (those that exceed or go *beyond the proficiency* outlined in the 3.0 targets). This often requires a team to brainstorm what it really looks like to process the information at a deeper or more complex level.

RL.3.3: Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.

Score	Learning Targets
<b>4.0</b> Advanced (beyond what was taught)	<ul style="list-style-type: none"> <li>Speculate how a difference in characters' motivations or feelings would impact their actions, and ultimately the sequence of events (supporting with reason). (DOK 3)</li> </ul>
<b>3.0</b> Proficient (simple and complex—includes 2.0 targets)	<ul style="list-style-type: none"> <li>Identify how a character's feelings change and how those feelings impact the character's actions. (DOK 3)</li> <li>Explain how the character's actions contribute to the sequence of events. (DOK 3)</li> <li>Support a claim with evidence from the text. (DOK 2)</li> </ul>
<b>2.0</b> Progressing	<ul style="list-style-type: none"> <li>Identify the sequence of events in a story, including character actions. (DOK 1)</li> <li>Describe character traits or motivations and feelings. (DOK 2)</li> </ul>
<b>1.0</b>	<ul style="list-style-type: none"> <li>Needs support to accomplish 2.0 and 3.0 targets</li> </ul>
<b>0.0</b>	<ul style="list-style-type: none"> <li>Even with help, no success</li> </ul>

Source for standard: NGA & CCSSO, 2010a.

**Figure 6.5: Example third-grade proficiency scale.**

Score	Learning Targets	Assessment Item or Items and Types	Assessment Items Meet Criteria If . . .
<b>4.0</b> Advanced (beyond what was taught)	<ul style="list-style-type: none"> <li>Speculate how a difference in characters' motivations or feelings would impact their actions, and ultimately the sequence of events (supporting with reason). (DOK 3)</li> </ul>		
<b>3.0</b> Proficient (simple and complex—includes 2.0 targets)	<ul style="list-style-type: none"> <li>Identify how a character's feelings change and how those feelings impact the character's actions. (DOK 3)</li> <li>Explain how the character's actions contribute to the sequence of events. (DOK 3)</li> <li>Support a claim with evidence from the text. (DOK 2)</li> </ul>		
<b>2.0</b> Progressing	<ul style="list-style-type: none"> <li>Identify the sequence of events in a story, including character actions. (DOK 1)</li> <li>Describe character traits or motivations and feelings. (DOK 2)</li> </ul>		

**Figure 6.6: Example third-grade proficiency scale with additional assessment-planning columns.**

## Co-Creating Rubrics to Clarify Quality and Proficiency of Products

As part of the design process, teams must establish what proficiency looks like for their assessments. When using constructed-response items or performance tasks to measure student learning, teams must develop specific rubrics that outline those items' or performances' level of proficiency or acceptable quality in a detailed, clear fashion.

Well-constructed rubrics provide that clarity for teams. In this section, let's examine the different types of rubrics and discuss how teams can co-create them.

There are three types of rubrics: (1) holistic, (2) analytic, and (3) single point.

### ***Holistic Rubric***

A *holistic rubric* is used to score the overall proficiency of a student's work sample or performance. It provides a single score or rating for an entire product or performance based on an overall impression of a student's work.

For instance, a team might create a rubric for narrative writing in grade 1 as shown in figure 6.7.

Note that each level of proficiency contains information about the targets the team has prioritized for students. Products are sorted into general proficiency categories based on a quick impression. To that end, teams will best use holistic rubrics to evaluate the quality of simple products or performances. A disadvantage to using holistic rubrics is that distinguishing the strong elements from the weak elements in a piece of work becomes a little fuzzy. In other words, the rubric doesn't necessarily lead teams to know why a student's essay was "developing" versus "proficient" and what specific support the student needs.

Score	Evidence
4	Student . . . <ul style="list-style-type: none"> <li>• Stays on topic in response to the prompt</li> <li>• Includes elaborations and relevant details</li> <li>• Forms letters correctly and includes spaces between words</li> <li>• Provides beginning and proper noun capitalization and ending punctuation</li> <li>• Has no spelling errors</li> </ul>
3	Student . . . <ul style="list-style-type: none"> <li>• Stays on topic in response to the prompt</li> <li>• Includes relevant details</li> <li>• Forms letters correctly and includes spaces between words</li> <li>• Provides beginning and proper noun capitalization and ending punctuation</li> <li>• Spells high-frequency words correctly while difficult and unfamiliar words are spelled phonetically</li> </ul>
2	Student . . . <ul style="list-style-type: none"> <li>• Stays on topic but doesn't fully answer the prompt</li> <li>• Provides no relevant details</li> <li>• Demonstrates some errors in letter formation and may not provide sufficient space between words</li> <li>• Uses inconsistent capitalization and punctuation</li> <li>• Has frequent spelling errors (including high-frequency words)</li> </ul>
1	Student . . . <ul style="list-style-type: none"> <li>• Needs significant support to accomplish any writing</li> </ul>

**Figure 6.7: Holistic rubric example—Grade 1 narrative.**

## Analytic Rubric

An *analytic rubric* is used to evaluate each criterion or trait of the student work sample or performance separately; this allows teams to analyze student learning in a more specific way (Arter & Chappuis, 2006). Using an analytic rubric for a common formative assessment means that teams will be able to determine exactly which areas of learning individual students need additional time and support in—as long as the rubric was designed around the specific learning targets.

Figure 6.8 is an example analytic rubric for the same grade 1 narrative-writing task; it is arranged by element or target.

Element	4—Exceeds	3—Proficient	2—Developing	1—Needs Support
<b>Focus and content</b>	<ul style="list-style-type: none"> <li>• Student stays on topic in response to the prompt.</li> <li>• Student includes elaborations and relevant details.</li> </ul>	<ul style="list-style-type: none"> <li>• Student stays on topic in response to the prompt.</li> <li>• Student includes relevant details.</li> </ul>	<ul style="list-style-type: none"> <li>• Student stays on topic but doesn't fully answer the prompt.</li> <li>• Student provides no relevant details.</li> </ul>	<ul style="list-style-type: none"> <li>• Student needs significant support to accomplish the target.</li> </ul>
<b>Mechanics of writing</b>	<ul style="list-style-type: none"> <li>• Student forms letters correctly and includes spaces between words.</li> </ul>	<ul style="list-style-type: none"> <li>• Student forms letters correctly and includes spaces between words.</li> </ul>	<ul style="list-style-type: none"> <li>• Student demonstrates some errors in letter formation and may not provide sufficient space between words.</li> </ul>	<ul style="list-style-type: none"> <li>• Student needs significant support to accomplish the target.</li> </ul>
<b>Capitalization and punctuation</b>	<ul style="list-style-type: none"> <li>• Student provides beginning and proper noun capitalization and ending punctuation.</li> </ul>	<ul style="list-style-type: none"> <li>• Student provides beginning and proper noun capitalization and ending punctuation.</li> </ul>	<ul style="list-style-type: none"> <li>• Student uses inconsistent capitalization and punctuation.</li> </ul>	<ul style="list-style-type: none"> <li>• Student needs significant support to accomplish the target.</li> </ul>
<b>Spelling</b>	<ul style="list-style-type: none"> <li>• Student has no spelling errors.</li> </ul>	<ul style="list-style-type: none"> <li>• Student spells high-frequency words correctly while difficult and unfamiliar words are spelled phonetically.</li> </ul>	<ul style="list-style-type: none"> <li>• Student has frequent spelling errors (including high-frequency words).</li> </ul>	<ul style="list-style-type: none"> <li>• Student needs significant support to accomplish the target.</li> </ul>

Figure 6.8: Analytic rubric example—Grade 1 narrative.

## Single-Point Rubric

Finally, a *single-point rubric* is analytic in that it examines the criteria or traits of a product or performance separately, but it is nontraditional in that it only provides descriptors of proficiency. This type of rubric offers students a more focused view of proficiency; they can use the rubric to proactively examine their work prior to submitting it to the teacher. It's an opportunity to give and get targeted feedback and even to engage students in some peer-to-peer feedback.

Figure 6.9 (page 96) features an example single-point rubric for a grade 3 narrative essay.

Grade 3 Narrative Rubric (Single Point)		
My Areas to Improve	Proficiency (3) Looks Like . . .	My Strengths
	<b>Introduction:</b> The introduction should include the who and the where of the story and what the writer is going to describe or tell about (who, where, what). It can be a place to introduce oneself or characters. It should have some details that help establish the situation.	
	<b>Focus:</b> The essay stays on topic and addresses the prompt or answers the question.	
	<b>Logical order or sequence:</b> The writing unfolds naturally in a sequence of events and includes temporal words to transition between events.	
	<b>Details:</b> The essay should have enough details throughout to support reader understanding.	
	<b>Ending or conclusion:</b> The essay wraps up with a closing or summarizing statement about the event, or the writer ends the essay by reflecting on what they learned or the feelings they experienced.	

**Figure 6.9: Single-point rubric example—Grade 3 narrative.**

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Notice that the team first identified the learning targets or elements that lead to the picture of proficiency (introduction, focus, sequence, and so on), and then described the qualities of proficiency for each target.

Figure 6.10 is an example of a lab report single-point rubric developed by a science team at Magazine High School in Arkansas.

When teams build common clarity about the quality of work they are targeting, they can apply that clarity and consistency in their scoring of student products and performances. Figure 6.11 (page 98) offers teams a process they can use to build common rubrics and scoring guides. These practices can also be extended to students as they actively build clarity about their learning and expectations for proficiency and quality. (See page 148 in the appendix for a reproducible version of this tool.) Chapter 8 (page 117) provides further support for the power of working with students using rubrics and other indicators of quality.

What I Did Well	Proficiency Expectations	What I Can Improve
<b>Purpose</b>		
	<ul style="list-style-type: none"> <li>• Describes the purpose or problem</li> <li>• Includes prior knowledge regarding the problem</li> <li>• Includes a prediction</li> </ul>	
<b>Materials</b>		
	<ul style="list-style-type: none"> <li>• Lists materials with appropriate details (for example, includes sizes)</li> </ul>	
<b>Procedure</b>		
	<ul style="list-style-type: none"> <li>• Describes a step-by-step process</li> <li>• Includes sufficient detail that allows someone to duplicate the process</li> <li>• Writes in paragraph form (not numbered)</li> </ul>	
<b>Data</b>		
	<ul style="list-style-type: none"> <li>• Provides relevant data presented through a chart, table, or graph</li> <li>• Puts labels on graphs, tables, and charts</li> </ul>	
<b>Analysis</b>		
	<ul style="list-style-type: none"> <li>• Includes calculations (provides an example if multiple calculations are required)</li> <li>• Includes discussion of findings</li> </ul>	
<b>Conclusion</b>		
	<ul style="list-style-type: none"> <li>• Explains observations</li> <li>• Explains findings in own words</li> <li>• Includes an explanation of how data relate to the hypothesis</li> <li>• Includes discussion of errors and patterns</li> </ul>	

Source: © 2022 by Magazine High School. Used with permission.

**Figure 6.10: Single-point rubric example—Secondary lab report.**

**Step 1:** Determine the essential standards and their subset of learning targets that you will be monitoring with the rubric.

- What knowledge (content, information, procedures, or concepts) do we want students to have?
- What skills do we want students to integrate, apply, or demonstrate?

**Step 2:** Design the specific task that aligns with and provides data on how students are attaining these prioritized learning targets.

- What is the student prompt for the task?
- Does the task require the integration of several skills and concepts?
- Does the task require collaboration?
- Is there a product involved?

**Step 3:** Discuss and determine the most appropriate rubric design.

- Holistic
- Analytic
- Single point

**Step 4:** Referencing the learning targets, determine the elements the rubric will reflect. (Note: When using an analytic or single-point rubric, these will become your criteria or dimensions of the task. When using a holistic rubric, the characteristics are integrated in a single descriptor for each proficiency level.)

**Step 5:** Determine your quality indicator framework (for holistic and analytic rubrics).

- Number of performance levels with assigned scores (for example, three or four levels)
- Labels (numerical or descriptive)

**Step 6:** Complete descriptors for the proficient level first (along all criteria and dimensions), and then complete descriptors for the levels above and below proficiency.

**Step 7:** Assemble student work samples (if available) and review them against the rubric.

- Will the rubric be guiding for teachers (in terms of instruction and assessment)?
- Will the rubric be guiding for students (so they know where they are and how they can improve)?
- Will the rubric be focused on the true end in mind for the task?

**Step 8:** Define the point values for all descriptors. Create your instructional game plan for sharing this rubric and integrating it into formative assessment and instruction.

**Figure 6.11: Team process for developing rubrics.**

## Building Greater Clarity

We designed this chapter to assist teams in the more complex processes related to common assessments. Each strategy offers teams a vehicle for building greater clarity as well as alignment when designing quality assessments. In the next chapter, you will learn specific processes that guide how teams analyze their assessments' results to make a difference in student learning.

## CHAPTER 7

# Using Data to Make a Difference



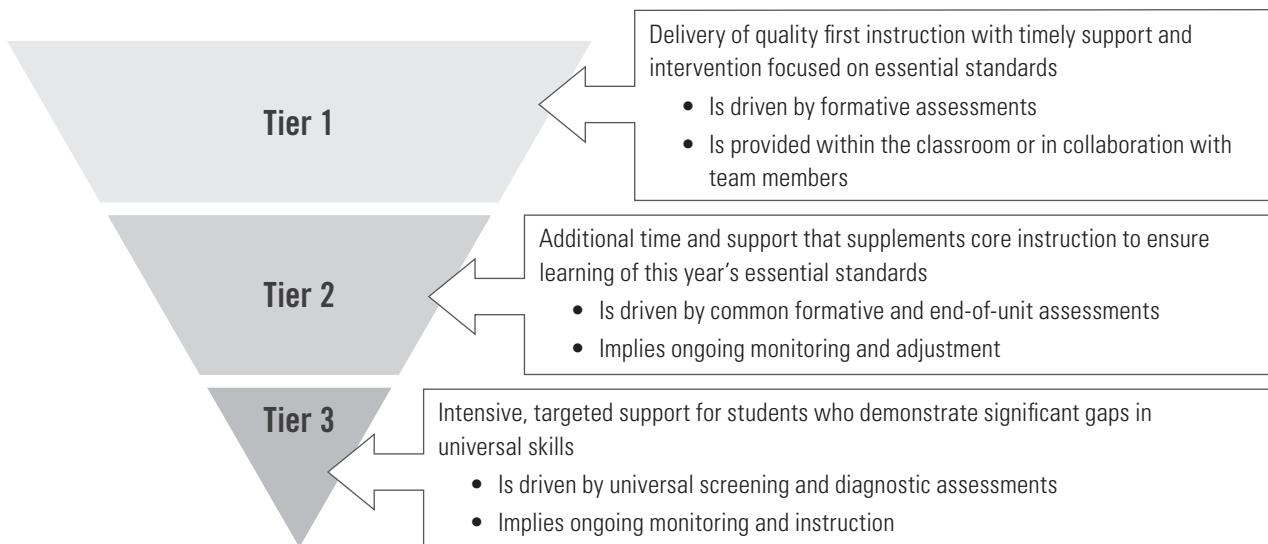
- The most important result of using common formative assessments is the response teams develop and implement to support student learning.
- To accurately analyze and act on common formative assessment information, teams must organize data by learning target for each student.
- High-performing teams use the results of common formative assessments to learn about the instructional practices that are most effective for student learning.

When teams use information from common assessments effectively, members can monitor the learning of all students and take targeted action to intervene with those students needing additional time and support. In fact, the formative assessment process is an integral part of a schoolwide system of support, providing the *quality first instruction* (Tier 1) as well as *supplemental interventions* (Tier 2) outlined within the response to intervention (RTI) framework (Buffum, Mattos, & Malone, 2018). However, when first beginning to use common assessments, teams are often unclear about how to use the information. This chapter will share team strategies for approaching the work of analyzing data with greater confidence and, as a result, developing a clear plan to help students learn more. Figure 7.1 (page 100) provides a visual model of assessment's role across all three tiers of the RTI framework.

## Revisiting the Why of Common Assessments

Before we discuss how teams use information coming from common assessments, let's review their purpose. We see three major priorities for using data from common assessments.

1. To monitor student learning of essential standards and identify specific areas of need in any student requiring additional support
2. To identify immediate and future implications for effective instructional strategies and the alignment and delivery of curriculum and assessment
3. To provide timely and targeted feedback to students



**Figure 7.1: The role of assessment in a tiered system of support.**

In summary, the primary purpose is to improve learning—the learning of students *and* of the professionals serving the students. These priorities are reflected in the processes teams use to organize and analyze assessment results, design and deliver a student intervention plan, and systematically gain feedback on instructional practices that lead to higher levels of learning.

These priorities are also reflected within the culture and mindset of the collaborative team. Let's begin by discussing how a team might proactively examine its mindset in advance of working with assessment data.

## Establishing a Team Culture for Using Data

When teams examine the results of common formative assessments together, team members must create a safe environment for one another. Laura Lipton and Bruce Wellman (2012) discuss the importance of the relational trust teachers build when they are willing to be vulnerable and seek help from their team members. Unfortunately, without developing trust, teams may profess to value data, but individual teachers may worry that they will be judged as lesser teachers if their students score lower on a common assessment than their colleagues' students do. Other teachers might view the process as a competition among the team. Obviously, these two mindsets do not reflect the true purpose of collectively examining assessment data, and if they aren't surfaced, they may hinder a team's willingness to be vulnerable and transparent in the assessment process.

Effective teams view data examination as an opportunity to learn about what their students know and don't know, gauge the effectiveness of instructional practices, and improve in both contexts (student learning and adult learning). When they have a culture of learning, team members recognize and accept that there will be differences among teachers' assessment results, and they also know that they will use those differences in student learning to benefit all. No teacher knows it all, but team members are on a mission to grow professionally so that their students learn at high levels.

Even though your team may have already established norms for working together, we suggest re-examining them as you prepare to work with common assessment data. Do they include information about how the team will view data? For example, one norm might state that the team will treat the information from its assessments objectively.

As a lead-in to revisiting norms, teams can use the Best Hopes / Worst Fears activity (Wellman & Lipton, 2004) to explore and surface potential worries about how data will be used. In this activity, members brainstorm their best hopes and worst fears about using common formative assessments on a T-chart. Through the process, team members might acknowledge that they are afraid their colleagues will be judgmental, that their results will not be as positive as they hope, that they will look bad to their teammates, and so on. Once these concerns are out on the table, your team can address each of them by creating data norms, such as the following.

- We will look for facts, not blame.
- We will learn from the results of our assessments.
- We will not judge our colleagues.

After discussing their fears, the team members then think about why this work is so important and what value it could bring—in other words, they ask, “What are our best hopes?” These hopes will likely include higher student success, more personal satisfaction, increased knowledge of instructional strategies, and various other learning outcomes. The team will likely conclude that the benefits of common formative assessments outweigh the possible fears.

## Organizing the Data

In chapter 5 (page 65), we shared how teams can design formative assessments around a small number of learning targets. They create an assessment plan or blueprint that outlines the specific items they will use to assess each target. Having such an intentional and specific plan assists in the organization of data prior to the analysis. The general rule of data organization is that data should be recorded by student, by target. In addition, all members of the team should be able to see the results for all students. One of the benefits of common assessments is that teams can compare their results to the results of their colleagues. In fact, according to DuFour and colleagues (2016), all teachers need to see the data for how their students did compared to the other students in the same grade or content area. They remind teachers that “without relevant information on their respective strengths and weaknesses, teacher conversations regarding the most effective ways to help students learn a concept will deteriorate into sharing of uninformed opinions (“This is how I like to teach it”)” (DuFour et al., 2021, p. 21). Providing side-by-side data will allow for more critical analysis by a team and lead to targeted actions of support and improved practice.

### **Student work is data!**

When teams begin looking at the results of their assessments, they may feel that data are only represented as numbers in a spreadsheet. However, some of the most revealing data are found by directly looking at student work. Teams should record student proficiency results (by name, by target), but we strongly encourage teams to include student work as a piece of their data on a regular basis. Student work, particularly when it contains constructed-response items, will reveal students’ thinking and problem-solving approach, any misinformation or misconceptions they hold, and specific strengths in their learning. When teams gain these insights through the examination of student work, it leads them to implement better action plans to close any learning gaps.

For example, a seventh-grade mathematics team developed a common formative assessment to determine which students understood adding and subtracting negative integers. Figure 7.2 shows an assessment plan for such an assessment.

Learning Target	DOK 1	DOK 2	DOK 3	DOK 4	What Proficiency Looks Like
T.1: Add negative integers.		Four multiple-choice questions			Four of four correct
T.2: Subtract negative integers.		Four multiple-choice questions			Four of four correct
T.3: Apply the process to a real-life problem embedding negative integers.			Two constructed-response questions with justification of the process		Two correct or one minor mistake

Figure 7.2: Seventh-grade assessment plan for negative integers.

Learning Target 1: Add Negative Integers		
Need Time and Support	Need More Practice or Reinforcement	Are Ready for Extension
Kayla	Matthew	Aaron
Marianna	Andre	Juan
Josh	Samantha	Max
Jasmine	Mia	Angel
Learning Target 2: Subtract Negative Integers		
Need Time and Support	Need More Practice or Reinforcement	Are Ready for Extension
Kayla	Jasmine	Aaron
Andre	Marianna	Juan
Josh	Samantha	Max
Matthew	Mia	Angel
Learning Target 3: Apply to Problems		
Need Time and Support	Need More Practice or Reinforcement	Are Ready for Extension
Kayla	Josh	Angel
Marianna	Andre	Juan
Matthew	Aaron	Mia
Jasmine	Max	Samantha

Figure 7.3: Sample of collected assessment data for three learning targets.

As they designed their assessment, the team members sequenced the assessment items so that questions 1–4 assessed target 1, questions 5–8 assessed target 2, and questions 9 and 10 assessed target 3. They decided that to be proficient, students would have to get all four questions correct on each of targets 1 and 2, and they would have to score a 3 on a four-point rubric for each target 3 question.

Before the team meeting, team members enter their data by learning target into a preorganized template like the one in figure 7.3. They specify the students who have not reached proficiency, those who would benefit from additional practice, and those who are ready for extended learning activities.

By organizing their data in this fashion in advance of the meeting, the team members jump-start their analysis and action planning. They're able to view student proficiency by target and identify student needs based on the information. Finally, because each teacher's data are visible, the team can note and engage in conversations about effective instructional practices.

Although team members can record their data using pencil-and-paper documents, we find

that digital tools offer teams more flexibility in terms of calculations, analysis, and sharing of information across the team. A tool such as a digital spreadsheet (shown in figure 7.4) provides teams the ability to color-code using conditional formatting (grayscale shading in figure 7.4). In this example, students who are proficient (receiving a score of 3) may show as white, students who are close to proficiency (2) may show as light gray, and those who need significant support (1) may show as dark gray. The spreadsheet is also organized to show the data from each class by target in a side-by-side fashion. This arrangement gives the team a visual way to quickly compare proficiency from class to class, which can aid in the discussion of effective instructional practices.

Some schools have access to assessment design tools within digital platforms that provide summaries of results. Still others use digital tools that work in concert with Google Classroom or similar structures. In short, there are many options and templates

<b>Unit Two, Common Formative Assessment 1 Results</b>		
<b>Learning Target 1</b>		
<b>Learning Target 2</b>		
<b>Student Number</b>	<b>Ms. Martinez</b>	<b>Mr. Johnson</b>
1	1	3
2	1	3
3	3	0
4	3	2
5	3	0
6	3	3
7	3	2
8	1	3
9	3	3
10	3	3
11	1	3
12	2	3
13	3	3
14	1	3
15	1	2
16	1	3
17	1	3

**Figure 7.4:** Example spreadsheet of common formative assessment results.

for organizing data, and over time, teams will decide which structures or formats work best for them. Regardless of the structure or format chosen, we suggest that teams follow these guidelines.

- Choose an easily accessible tool that allows a team to view its data in one location.
- Ensure that the template is designed to organize the data by target, by class, and by student.
- Ensure that all members of the team can access the data sheet so they can enter data prior to the meeting.
- Embed the function to calculate an overall summary of proficiency for the grade level. This will give team members feedback on any SMART goals that they established and allow them to gauge improvements over time (such as from year to year).

## Using a Protocol to Analyze Results

In order to efficiently analyze the results that lead to specific actions, we strongly suggest that teams use a protocol, or structured conversation, such as the one found in figure 7.5. (See page 149 in the appendix for a reproducible version of this protocol.) We adapted this protocol from the What? So What? Now What? protocol developed by Gene Thompson-Grove (2012). It embeds suggested time frames and guiding questions to ensure that during their conversations, teams identify information centered on the three major priorities for giving common assessments. Note that teachers should enter data prior to the meeting and have access to student work for the discussion. Teams should designate a timekeeper and a notetaker for the conversation.

Let's walk through the protocol step by step.

### Team Data Analysis Protocol

Use results from common formative or end-of-unit assessments.

*Note: Enter data prior to the meeting and have access to student work for the discussion. Designate a timekeeper and a notetaker for the conversation.*

#### Question One: What? (ten minutes)

- What targets seem to have been well established? Not well established?
- Are we seeing some common errors or misunderstandings?
- Is there a common group of students who are not scoring well?
- Do we see significantly different results among our classes?
- Are there any “fuzzy” areas in the scoring of student work? Do we need to calibrate and clarify?
- What student groupings emerge from the data (such as not proficient, close, and beyond proficient)?
- Which students have not achieved proficiency? On what targets do they need support?
- Which students have gone beyond proficiency and may benefit from extended learning opportunities?

**Question Two: So What? (seven minutes)**

- What is our hypothesis for these results?
- Did we actually teach what we intended?
- What might be the obstacle for students who are struggling?
- Are our resource materials actually aligned to our targeted learning outcomes?
- What instructional strategies appeared to be highly effective when we were examining our different results?
- Are there any practices we need to research or learn about in order to better support student learning?

**Question Three: Now What? (intervention and extension plan; twenty minutes)**

- What concepts or skills need to be retaught to the whole class (based on our data)?
- What short-term interventions and reteaching will we provide to help students reach proficiency?
- Given the errors or misconceptions we see, what strategies will we use? How will these interventions be delivered? Who will deliver them?
- What evidence will we gather throughout the interventions to monitor student learning?
- How might we provide reinforcement or extend student learning for those who demonstrate proficiency (for example, what may we implement within the class or during Tier 2 support)?
- How will we provide students feedback on a timely basis? How are they expected to engage with this feedback?

**Sample Organizer**

Students Needing Intervention (They may be subdivided into more than one group.)	Support Plan
Students Needing Reinforcement or Minimal Support	Support Plan
Students Needing Extension	Support Plan

**Question Four: What Have We Learned? (five minutes)**

- Are there any changes we would make to our assessments, pacing, or instructional strategies the next time we teach this unit?

**Figure 7.5:** Team protocol for analyzing assessment results.

### ***Question One: What?***

The focus of this first question is to identify facts about the data. We suggest limiting this portion to ten minutes so that the session can be used to game-plan the next steps. Teams can employ the following questions as they do their examination and set the stage for further analysis.

- What targets seem to have been well established? Not well established?
- Are we seeing some common errors or misunderstandings?
- Is there a common group of students who are not scoring well?
- Do we see significantly different results among our classes?
- Are there any “fuzzy” areas in the scoring of student work? Do we need to calibrate and clarify?
- What student groupings emerge from the data (such as not proficient, close, and beyond proficient)?
- Which students have not achieved proficiency? On what targets do they need support?
- Which students have gone beyond proficiency and may benefit from extended learning opportunities?

In chapter 5 (page 65), we discussed that some teams write their multiple-choice questions with specific distractors to know what mistakes their students are making. If your team wrote questions this way, it will be important at this step to look at the item analysis and see which students made which mistakes. For example, if the multiple-choice question has four choices (one correct and three based on common misunderstandings students have), you can know more specifically why students got it wrong.

Your team might also recognize that one teacher was more successful at teaching a particular learning target than the rest of the team was. This teacher can share instructional strategies with the group, and the team might decide that students who need more time and support should be assigned to that teacher to receive further support on that target.

### ***Question Two: So What?***

We suggest having a limited time (approximately seven minutes) to discuss the team’s hypothesis. The team uses this time to identify possible factors that led to the results. Questions that drive this part of the process include the following.

- Did we actually teach or provide sufficient instruction in this skill or concept? What might be the obstacle for students who struggled?
- Are our resource materials actually aligned to our targeted learning outcomes?
- What instructional strategies appeared to be highly effective when we were examining our different results?
- Are there any practices we need to research or learn about in order to better support student learning?
- Do any assessment items need adjusting because they were poorly constructed or worded?

As teams discuss their observations, they might hypothesize that the students who experienced difficulty with the task appear to have weak background knowledge or prerequisite skills. They might also hypothesize that some students had difficulty because the target is an abstract concept; thus, students will benefit from more concrete learning opportunities around this target. Following is a scenario describing this part of the process in action.

The physics team at Harborview High School gave its students an assessment asking them to analyze some graphs from an experiment and then develop and explain a conclusion drawn from the information. The team used eight multiple-choice questions and two constructed-response questions in the assessment. As the team members looked at their results, they discovered that a number of students got all the multiple-choice questions correct but missed the constructed-response questions asking them to develop a conclusion. The team hypothesized that the students really did understand how to analyze information from a graph, but they didn't know how to develop a coherent conclusion in writing. By creating hypotheses about why students didn't learn a particular target, a team builds possible ways to respond with corrective instruction.

In chapter 6 (page 85), we investigated how a team can plan a scaffolded assessment using a simpler version and a more complex version of the same learning target. When a team uses this strategy of assessment development, members can be more strategic about what the data reveal about student learning. Consider a high school ELA team working with the following standard: “Determine an author’s point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose” (RI.9–10.6; NGA & CCSSO, 2010a). The team gives a short common formative assessment on two targets: (1) identify rhetoric in a text and (2) analyze how the author uses rhetoric to advance that point of view. If a student is proficient on the first target but *not* proficient on the second, the team doesn’t have to start back at the beginning with how to identify rhetoric.

### **Question Three: Now What?**

The third question, Now what? drives the most valuable part of the analysis conversation because it leads to targeted action on behalf of student learning. Given this importance, we suggest that this step capture the most meeting time (approximately twenty minutes). Based on the results and their discussion leading up to this point, teams co-plan their intervention and extension response to support students. Depending on the data, actions may include reteaching the whole class or providing targeted interventions for smaller student groups. Teams can use a *pile and plan* approach, where they sort student responses into piles: correct answer, incorrect answer 1, incorrect answer 2, and so on. Using the actual student responses, they brainstorm specific strategies for those students requiring targeted interventions to close the gap, students needing additional practice or reinforcement of skills and concepts, and students needing extensions for their learning. Members will identify how and when the team will provide those responses. In figure 7.5 (page 104), we provide a sample organizer for recording the actions designed to support the different student groups based on their needs. Additionally, teams can

address how members will provide feedback to students and how students will use that feedback. The driving questions for this part of the conversation include the following.

- What concepts or skills need to be retaught to the whole class (based on our data)?
- What short-term interventions and reteaching will we provide to help students reach proficiency?
- Given the errors or misconceptions we see, what strategies will we use? How will these interventions be delivered? Who will deliver them?
- What evidence will we gather throughout the interventions to monitor student learning?
- How might we provide reinforcement or extend student learning for those who demonstrate proficiency (for example, what may we implement within the class or during Tier 2 support)?
- How will we provide students feedback on a timely basis? How are they expected to engage with this feedback?

For instance, if a team identifies that some students lack background on a particular concept, the members will design interventions that build and reinforce the background knowledge those students need more exposure to. If the members hypothesized that students simply didn't receive enough instruction to master the skill, they know they can go back and provide additional time to practice and receive feedback. They may identify that some students need the task broken into smaller skills than what their instruction initially provided; therefore, they can plan a process to ensure that level of support.

In the previous example of the high school physics team, the team responded to the students who got the multiple-choice questions correct and the constructed-response questions incorrect by helping them learn how to write a strong paragraph explaining their conclusion.

#### ***Question Four: What Have We Learned?***

As a wrap-up to the analysis protocol, we include one last question: What have we learned? This question ensures that teams reflect on their professional learning from the assessment as well as identify any adjustments to the assessment items as required for future use. Teams also discuss any other curricular adjustments that may be needed, such as adjustments to pacing or instructional strategies. The following examples show this portion of the protocol in action.

During their analysis meeting, the sixth-grade ELA team members at Meadowview Middle School realized that their assessment on sentence structure featured primarily DOK 1 questions. For example, questions asked students to simply identify a correct sentence structure. They determined they would get better alignment with the rigor of the standard if they asked students to take a piece of writing and edit it to show how to use a variety of sentence structures (combining sentences and varying sentence length).

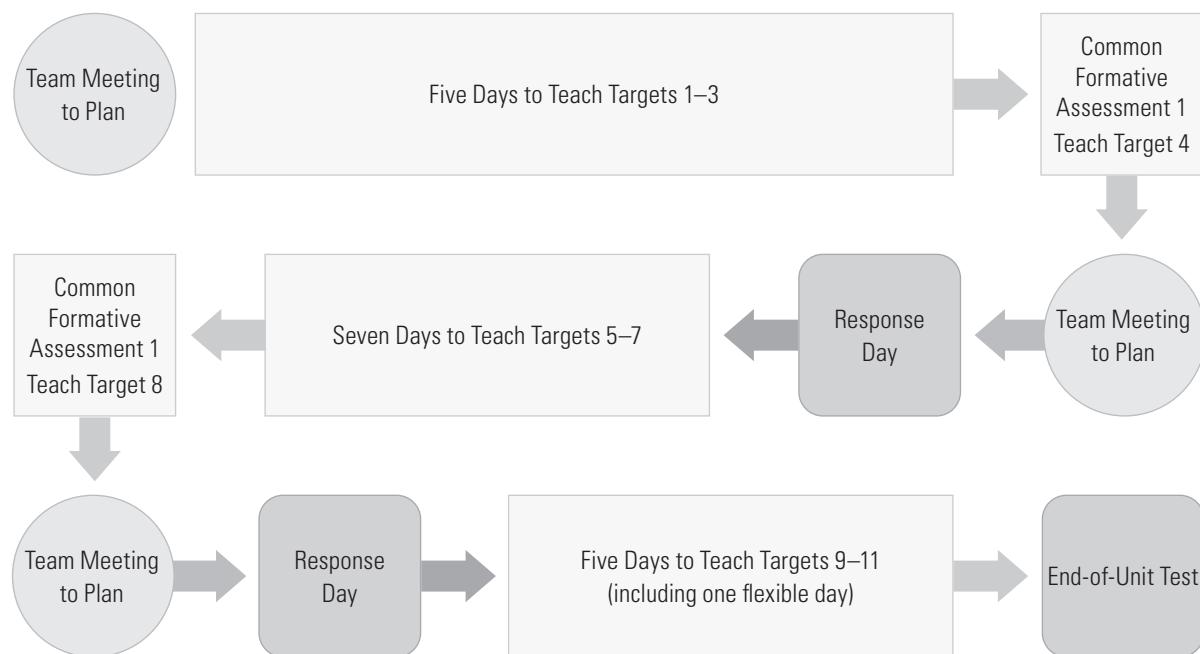
The biology team members at Douglass High School realized after their assessment that most students were still having difficulty differentiating diffusion and osmosis and recognizing and describing the processes. They agreed to spend two more days on instruction and use several additional activities. They noted this on their pacing guide so they would be sure to do the same the following year.

At Earhart Elementary School, the third-grade team questioned the time it was taking to administer reading assessments. After much discussion and reflection, the team members decided that they were assessing too many learning targets every time they did a formative assessment. They were trying to assess some vocabulary and some reading strategies, as well as some writing targets. They agreed that they would instead assess only one or two skills—such as finding the main idea and details—and base their questions on one reading passage.

When teams design their multiple-choice questions using common errors and misconceptions as distractors (see chapter 5, page 65), they set the stage for a more effective analysis of the results. Using their design blueprint, teams can quickly conduct an item analysis to see which students made which errors and see the direct connection between their selection and the possible misconception. Depending on the incorrect choice that students made, the team is guided to the misconception or lacking skill and the implications for intervention.

## Finding Time to Respond to Data

Educators often ask us, “How do teams find time to respond to the data?” Our response to that question is this: Be proactive. Be intentional. If teams know their priority is to respond to information coming from their assessments, then they need to include that response time in their instructional plan. In our previous books, we’ve used a graphic such as the one in figure 7.6 to show how teams fit their response time into a strong unit plan.



**Figure 7.6:** How teams fit their response time into a strong unit plan.

The graphic exemplifies how a team might allocate time within a unit of instruction to instructional days and assessments. Looking at day six of the unit plan, you'll see that the day includes both a common formative assessment and time to teach. We represent the day this way to show that common formative assessments are often short and won't take an entire lesson to administer. Following the assessment, the team plans to meet to go over the results and prepare the response. The day after this meeting, the team includes class time to implement the planned response—a day we've labeled *response day*. Depending on the common formative assessment, the team may need only part of a lesson for the response, but what is crucial to this work is that this response occurs during regular Tier 1 instructional time. If the unit is long, the team may want to have another common formative assessment before the end of the unit. The key point here is that the collaborative team is the most knowledgeable about how to best teach this content and, therefore, has collective responsibility for designing and delivering the response.

Teams have multiple opportunities to respond to data coming from their in-class checks for understanding, their common formative assessments, and their common end-of-unit assessments. These assessments all inform Tier 1 instruction and can be used to inform Tier 2 interventions.

Numerous schools have modified their master schedules to make sure there is a specific window during which students can receive targeted Tier 2 support. That targeted support is based on needs identified through common formative assessments of essential standards. The intervention time may be schoolwide or may be staggered across the day for different grade levels. It may occur daily or two to three times per week for Tier 2 support. It can also be used as prevention for those students who may need front-loading of language or prerequisite skills in order to successfully learn new information.

Elementary schools can create their master schedules to designate common intervention or Tier 2 time for all teachers at a particular grade level. This time might be called What I Need (WIN) time, RTI time, or something related to the school's name or mascot, such as Panther time. The name of this designated time isn't important; what's important is how the team uses the time—to provide additional time and support in the essential skills that the team has assessed through common assessments. The interventions may be delivered to students by their assigned teacher. But in many schools, all teachers on the team share their students so that they can divide and conquer, supporting targeted student groups by having students go to different classrooms depending on their specific needs. If the time is staggered for each grade level, other resources, such as intervention teachers, can push in to give additional support and potentially reduce the size of student groups. Regardless of the configuration of this co-planned intervention time, all teachers respond to the assessment data in some fashion, whether they are working with a group that is struggling to learn a certain skill, a group that needs additional practice, or a group that is ready to engage in extended learning opportunities. All students have access to support during this time, and no new instruction is taking place.

In addition, many middle and high schools are creating master schedules that have a built-in intervention period either daily or several days a week. For example, if a school has an eight-period day, it can shave a few minutes off each period to create a half-hour

period when all students are available for intervention or extension. Then the team can organize the students who need more time and support into smaller groups. Students who already learned the target may receive extension or enrichment during this time.

Regardless of the structure, teams are fulfilling the promise of common formative assessments when they use the data to support student learning—when they provide the additional time and support in an intentional and targeted fashion.

## Establishing Routines If a Team Doesn't Meet Right Away

A second question educators often ask us is, “What if our team doesn’t meet for another week?” In the interim, we suggest that teams establish some routines that they can implement without specific planning and use to give students timely feedback and support for their learning. Following are some postassessment routines that all teachers on a team can use.

- **Reviewing assessment items:** Students are facilitated to examine the correct responses to assessment items and discuss potential misconceptions that could lead to incorrect responses. Teachers can use various tech-based tools such as Kahoot! or assessment item analysis features on Google Classroom for this review. Or in a low-tech way, they can write the items on the classroom whiteboard or provide student teams with copies of the items to discuss. As students are gaining insights into misconceptions and strategies, teachers are also noting patterns in the common errors or in poorly written items that the team might modify.
- **Analyzing anonymous work:** Using strategies such as “My Favorite No: Learning From Mistakes,” which is highlighted in a Teaching Channel (n.d.) video, teachers can engage students in analyzing the quality of responses to assessment items or entry tickets. Once the teacher identifies anonymous examples, students work to identify strengths and mistakes in them. This strategy can be employed in a number of content areas via a whole-group or smaller cooperative-group approach. Teams can agree to use this routine on a daily basis but only use the results from certain days (like Friday) for their collaborative analysis and discussion.
- **Making quiz corrections:** Once they review quiz items and common errors, students are required to improve or correct their items. Before agreeing to use this process, teams should discuss and reach consensus regarding the quality of the corrections and the amount of credit students will receive once they’ve turned in their corrections. For example, a team may agree that students must explain why the answer they first chose was incorrect and then give the correct answer. The team may also agree that students will get half credit for all corrected items.
- **Tracking progress toward learning goals:** Using a common template or online system, teams can have students self-monitor their progress toward specific learning targets. By charting their progress, students can reflect on areas of strength and areas in which they need to increase their skills or get targeted support.

When team members implement these routines as part of their response plan, they gain critical insights regarding instructional strategies their students found effective. They can then bring this information to the collaborative meeting. During the meeting,

the team can dive deeper into the results, focusing on students who need additional support and interventions, specific strategies found to be effective, and any implications for modifying the curriculum or assessment items.

## Engaging as Singletons in This Process

When teams composed of singletons look at the results of their assessments together, they may follow a protocol similar to the one that other teams use. But this modified protocol emphasizes that they consult one another as advisers or critical friends. In figure 7.7, we provide vertical teams and other singleton teams with a modified protocol for analyzing assessment results. See page 151 in the appendix for a reproducible version of this protocol.

**Preparation for the meeting:** Members should come prepared with their students' results organized by proficiency level; for example, they can put the results into categories such as advanced, met proficiency, and not yet met proficiency. There should be a document camera or other means by which students can see the information, including student work whenever possible.

*Note: This protocol is based on a sixty-minute collaboration with three members rotating. Times can be adjusted based on the number of members and the total amount of time available. During each rotation, one teacher will be the presenting teacher, and the others will take a consulting role.*

**For each rotation:**

1. **Set the Stage** (no more than two minutes)

The presenting teacher shows the assessment item (using a document camera or providing samples to each member) and describes the focus of the assessment (the standard and specific learning target being assessed).

*Note: Questions from the remaining team members are limited to getting information about how students completed the assessment.*

2. **Ask, "What?"** (approximately three minutes)

The presenting teacher discusses their observations of the results (such as the general success rate, strengths or surprises, and common errors and misconceptions) and asks members for other observations.

*Note: Examples should be shared by using the document camera or distributing representative student work to the teachers.*

3. **Ask, "So What?"** (approximately two minutes)

Members share what they noticed or learned by looking at the students' responses and the assessment items, pacing, and so on. They can ask questions about and discuss the strategies used to achieve the results. (What worked?)

4. **Ask, "Now What?"** (approximately six to eight minutes)

All teachers discuss potential strategies that they could use to reteach the skill or concept to struggling students or, if implied by the data, to re-engage the whole class in order to reinforce the skill or concept. The presenting teacher shares final thoughts about the strategies they will be using and any changes to the assessment item or curriculum that would be appropriate for next time.

Repeat the process for each presenting teacher.

5. **Ask, "What Have We Learned?"** (last five minutes)

The team can discuss common patterns observed across all the members' results. If they have a shared focus, the teachers can discuss implications for their practices or future actions as a team.

**Figure 7.7: Vertical and singleton team protocol for analyzing assessment results.**

## Responding to Summative or End-of-Unit Assessments

First, let us clarify that teams can use all levels of assessment information to respond to student needs. Traditionally, teachers use common formative assessments to support student learning throughout a unit of instruction, focusing on small increments of learning. The learning targets and end-of-unit assessments are viewed as the end of the learning. However, we assert that teams can still use summative or end-of-unit assessments to identify students who need additional support, to examine improvement over time, and to examine the impact of instructional practice. In other words, they can use end-of-unit assessments formatively. We suggest following a similar protocol for analyzing the data, but placing greater emphasis on examining how many students reached overall proficiency on the unit's standards. Team members can reflect on whether their SMART goal was met and discuss and celebrate the practices that led to its accomplishment. Finally, we suggest that teams think about how they might carry forward support to those students who still need monitoring in certain essential skills.

The following “carry it forward” strategies enable teams to continue to use end-of-unit assessment results to support student learning of their grade level or course’s essential standards.

### *Give the End-of-Unit Assessments Earlier*

Many teams are now exploring the process of administering their end-of-unit assessment earlier than the typical last day of the unit. For instance, a mathematics team may push the end-of-unit assessment to three days before the original end date in the pacing calendar. Once they give the end-of-unit assessment, the team members quickly examine the results and design a plan to use the remaining days to deliver differentiated support. During those days, some students might receive extended learning opportunities, while others can receive another boost of instruction to build greater proficiency in the targeted essential standard. This approach is particularly effective when members of the team teach during a common period of the day. In this context, one teacher could provide support to students needing additional practice while another teacher could extend the learning of students who have met proficiency.

### *Continue Support Across Units*

Some standards, particularly those in literacy, extend beyond a single unit of study. For example, even though specific content may change, students will always need to identify and cite evidence from text, compare and contrast things, and explain or support their thinking in some type of writing. Teams can identify these threads that carry forward and use the new content as a vehicle for continuing the support in the essential standard. Say a social studies team has identified the standard, “Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table)” (RST.6–8.7; NGA & CCSSO, 2010a). This team can continue embedding the expectation that students critically read and gain information using charts, tables, and diagrams in each unit; teachers can provide targeted support during their intervention time for students who struggle with the skill. As students demonstrate greater proficiency, teams can update the data to reflect the new levels.

### Provide Proactive Support

When teams know some students may not possess skills that are needed for an upcoming unit of study, they can provide support to the students before they fail. For example, a fourth-grade student may not yet demonstrate proficiency in the following standard, which is addressed in the team's first unit on fractions:

Explain why a fraction  $a/b$  is equivalent to a fraction  $(n \times a)/(n \times b)$  by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions. (4.NF.A.1; NGA & CCSSO, 2010b)

The team can predict that students who struggle with this standard will also struggle in the upcoming unit, which emphasizes the following standard:

Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as  $1/2$ . Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, e.g., by using a visual fraction model. (4.NF.A.2; NGA & CCSSO, 2010b)

The team members decide to proactively build in support for students not yet proficient in the prerequisite. They will engage these students during their intervention or response time beginning on day one of the next unit, even before they have any new assessment information. In other words, they are pre-responding using information from prior units.

### Ensuring Team Members Are on the Same Page

When teams use a rubric to score student work, it is important that all members apply the same criteria to those work products or performances. We suggest that these teams engage in a brief calibration of their scoring before they ascertain students' proficiency on essential standards. This way, they can test whether teachers are applying the same criteria and viewing proficiency as having the same level of quality. To engage in this calibration, teams can do the following exercise.

Each teacher brings three or four random samples of student work to the team. Teachers then individually score those samples and put their scores in a private location (such as on a scoring sheet they hold on to, or on a sticky note they place on the back of the sample). Once each teacher has scored all the work samples, the team looks at the range of scores given to a piece of work. If the scores are all within a point or two (depending on the number of points on the rubric), then the team can assume individual members are applying the rubric equally. But if the sample has a range greater than one or two points, the team must discuss the disparate scores and come to a consensus on the appropriate mark. This process validates the scoring for not only the work samples brought to the meeting but also the rest of the student work.

Another process some teams use to ensure consistency is they score all the work together at their meeting. In this case, teachers exchange work samples so that they're not scoring the work done by their own students. Before they begin the scoring process,

the team examines several anchor papers that represent the quality of work for each level of the rubric. This process, however, can be time-consuming and should be reserved for major assessment tasks or cases when extended collaborative time is available.

## Taking Action

It is critical that teachers know what their students are learning and not learning so they can make decisions about instruction. By analyzing data together, your team will be able to provide much stronger and more successful intervention and enrichment, as well as gain valuable professional development for all members. Remember, the best data analysis leads to action by the team; otherwise, students will not benefit. Mike Schmoker (2003) reminds us that teachers don't require "sophisticated data analysis or special expertise" (p. 23) to collect and use the data they need. The step-by-step process we described in this chapter will help your team make decisions about student learning and plan intervention based on meaningful and timely data—your common formative assessments. This process propels teams to take action and provide targeted interventions that will make a difference for students.

In the next chapter, we will describe how teams can foster student efficacy by intentionally ensuring their students become an integral part of the assessment process.



## CHAPTER 8

# Building Student Self-Efficacy in Learning



- Doing assessment *with* students rather than *to* students allows them to learn at higher rates.
- Engaging students in the assessment process will ultimately shift the responsibility for learning from the teacher to the student.
- Feedback is more powerful than grades in motivating students.

If we were to order the chapters in this book from most important to least important, we could easily make a case that this chapter should come first. Of all the strategies linked to the assessment process, building student efficacy has one of the highest effect sizes, according to Hattie, at 0.92 (as cited in Waack, 2015). So why have we left this chapter until now? All the work your collaborative team has engaged in—choosing essential standards, unwrapping standards into targets, developing proficiency expectations, planning effective common formative assessments, writing quality questions, and using student work as data—will bring students into the assessment process. And all your collaborative team's work will allow students to build self-efficacy around this work. In this chapter, we will connect the dots from all the other chapters to put together a process that can significantly impact student learning.

## Owning the Learning

In many schools, teachers administer assessments, grade assessments, and return assessments to students with merely a quick review of the correct answers. This makes assessment something teachers do *to* students. Supported by the research, we instead encourage collaborative teams to create a culture where teachers do assessment *with* students to empower them in their learning. We'll describe the process that can help your team make this cultural shift.

Many terms are used to describe how teachers can involve students in their learning: *student involvement*, *student ownership*, and *student self-efficacy*, to name a few. We've focused this chapter on self-efficacy because it is related to the role feedback plays in

formative assessment and it describes the ideal characteristic we want to encourage with our students in this process. John Hattie and Shirley Clarke (2019) define *self-efficacy* as the “level of confidence we have in ourselves to reach our goals” (p. 82); it impacts both students’ motivation and their effort. When students see themselves as capable learners, they are willing to take on challenges to achieve at high levels. Those with high self-efficacy even respond to negative feedback by willingly persisting in their effort to be successful. Students with low self-efficacy may easily give up if provided only negative feedback. We’ll dig more deeply into the use of feedback later in this chapter.

## Building a Student-Centered Culture

In previous chapters, we’ve discussed common formative assessments from the teacher’s and team’s perspectives, defining the steps educators must take to effectively develop and use common formative assessments. However, by definition, true formative assessment must include students in the process. Consider Popham’s (2008) definition of formative assessment: “a planned process in which assessment-elicited evidence of students’ status is used by teachers to adjust their ongoing instructional procedures *or by students to adjust their current learning tactics*” (p. 6, *italics added*). Similarly, Paul Black and Dylan Wiliam (1998), in their seminal study of formative assessments’ impact on student learning, share this important consideration as they discuss the research supporting the use of formative assessments. They include four issues that have importance for schools implementing formative assessments. Two of the four are specifically related to the role students play:

- Underlying the various approaches are assumptions about what makes for effective learning—in particular the assumption that students have to be actively involved.
- The ways in which assessment can affect the motivation and self-esteem of pupils and the benefits of engaging students in self-assessment deserve careful attention. (Black & Wiliam, 1998, p. 141)

So, what does a student-centered school culture look like? Students must know and understand what they are expected to learn. They must be clear on the learning targets involved as well as on what they must be able to do to demonstrate they have mastered those targets. Students regularly receive evidence with feedback about their learning on those standards or targets and are asked to keep track of this evidence. Students set goals for their own learning and plan their role in accomplishing those goals.

If you are wondering about your own school’s assessment culture, you might want to ask the students themselves about how they view assessment. Do they think teachers use assessment for grades, or do they feel they can use assessment to set their own goals and plan their actions toward achieving those goals? The same question might inspire a thoughtful discussion among members of your team, especially if your school is using a traditional grading system.

Finally, consider this question: Do students see formative assessment results as a measure of their learning, or do they see them as information they can act on to become better learners? An effective assessment culture is one where students view assessments as opportunities to gather information about current levels of learning so that they know

what they still need to learn to be proficient. The assessment isn't the *end* of the learning; it's information that helps keep students moving toward mastery.

The foundation of a student-centered culture is the trust that needs to be built between the teacher and the student. Trust is built as a result of positive relationships. An important condition for trust is that mistakes are normalized and accepted. Traditionally, students see making mistakes as something that will lower their grade on an assessment. When you help students see mistakes as opportunities rather than flaws, you help them feel confident that they can overcome errors and learn from them (Hattie & Clarke, 2019). As a team, you would benefit from exploring how you are currently responding to students' mistakes. Do you quickly jump in to correct them, or do you provide follow-up feedback to challenge students' thinking about the target?

Popham (2008) describes the transformation that occurs when schools move from a traditional assessment culture to one where students are the center. Table 8.1 may help your team evaluate your current culture to see what your next steps should be. We'll share some examples of an effective student-centered culture throughout the rest of this chapter.

**Table 8.1: Levels of Assessment Culture Transformation**

<b>Level 1</b>	Teachers' Instructional Adjustment	Teachers use evidence from formative assessments to adjust instruction throughout the unit.
<b>Level 2</b>	Students' Learning Tactic Adjustments	Students use evidence from formative assessments to adjust their strategies and goals.
<b>Level 3</b>	Classroom Culture Shift	The classroom culture shifts from using assessment for grades to using assessment for increased teaching and learning.
<b>Level 4</b>	Schoolwide Implementation	The entire school uses formative assessment for improved learning.

## Having Students Answer Three Questions

D. Royce Sadler (1989) suggests three important conditions that must exist for students to be able to use feedback from formative assessments:

The learner has to (a) possess a concept of the *standard* (or goal, or reference level) being aimed for, (b) compare the actual (or current) *level of performance* with the standard, and (c) engage in appropriate *action* which leads to some closure of the gap. (p. 121)

As these conditions have been implemented over time, they have led educators to use three questions with their students: (1) Where am I going? (2) Where am I now? and (3) How can I close the gap? (Chappuis & Stiggins, 2020). For now, take a few minutes to ask yourself whether your students have the information—in other words, are they able to answer these three questions? If not, what should your team be doing to provide them that information?

In previous chapters, we shared effective assessment practices that will help your collaborative team collect evidence of student learning you can use to diagnose what

students need next. These are the same practices you'll need to follow to build an effective student-centered assessment culture. Consider, for example, the following.

- Your students should know what you and your team have designated as essential for them to know.
- Your students should know, at the beginning of each new unit of instruction, what learning targets they need to know for that unit.
- Your students should feel safe in the classroom to make mistakes and see errors as new learning opportunities.
- Your students should know what it will look like when they are proficient on each of these targets.
- Your students should be able to use the feedback from common formative assessments to understand where they currently are in their quest for mastery.
- Your students should set goals for their learning based on the information they get from common formative assessments.
- Your students should have opportunities to engage in activities they believe will help them learn targets they still haven't mastered.

## Ensuring Students Know Where They Are Going

The first thing your team will want to communicate to students at the beginning of a unit is what they need to know and be able to do at the unit's end. We often see these essential learning targets phrased as *I can* statements in student-friendly language. We've learned, however, by watching many teams in action that telling students the learning targets or posting them at the beginning of the lesson isn't enough. It's important here to make sure students know what they are expected to do to show they've mastered the targets. Consider this example: "I can develop an investigation to show evidence of the force of gravity on an object." In this case, proficient students must know more than the concept of gravity; they must also be able to develop an investigation to determine what gravity does to an object. Student-friendly vocabulary shouldn't mean that academic and domain-specific words are watered down in the *I can* statement. Rather, teachers should make sure that students learn what these words mean and that they know they are expected to be able to use these words in discussions and written explanations.

Teams can provide this information in many ways, depending on the grade level of the students they are working with. Some teams provide a list of essential learning targets at the start of the unit and ask their students to reflect on what they already know about these targets using some version of a one- to five-point scale. As they work through the unit, students are asked to use the results of common formative assessments to update their current learning on that one- to five-point scale. Other teams have found unit overview sheets, developed by William M. Ferriter (2020), effective. Teachers supply these sheets at the start of the unit, and students complete the "rate your current level of understanding" portion (see figure 8.1). Throughout the unit, students keep track of the work they've done to show mastery as well as any grades they've earned. The sheet includes a place for students to list the essential vocabulary they will need to learn.

<b>Learning Target</b>					<b>Can you complete the work detailed in the bulleted doing tasks for this learning target? Prove it here.</b>
<b>Rate Your Current Level of Understanding</b>					
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
<b>Grades Earned on Assignments and Assessments</b>					
<b>Essential Vocabulary to Master</b>					
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Source: Ferriter, 2020, p. 134.

Figure 8.1: Sample unit overview sheet.

## Engaging Students in Defining Quality Work

Students need to understand what it takes to succeed—this shouldn’t be a secret held by the teacher alone. Students must have a clear picture of the features of quality work, whether it’s a well-written essay, an appropriately worded hypothesis, or a well-designed project. Most often, educators are the ones who decide how to categorize or score student work based on its quality. However, it is our opinion, and the opinion of various experts, that students benefit from engaging in the process of defining quality—of actively making meaning of and personally connecting with the information, rather than simply being handed a list of features or a rubric. Connie M. Moss and Susan M. Brookhart (2009, 2019) recommend two key strategies for engaging students in the examination of quality work.

- 1. Look at examples:** Ask students to examine anonymous samples of quality work. (You can use the work of students from prior years, but be sure to remove

the names.) Ask students to list the features that make them good examples. Groups of students can also sort examples of work on a continuum from weakest to strongest based on key features referenced in teacher-made rubrics, such as the use of supporting details or a well-defined problem statement.

- 2. Use rubrics:** Beginning with a teacher-made rubric, ask students to review a sample of work and decide where it might fall on the rubric. Students can initially work in teams to compare work to the rubric. Students can then refine and even put the rubric into their own words to make a personal connection with the information. Gradually, students shift to examining their own work in comparison to the rubric, and then the work of their peers.

When teachers and students work together to design rubrics to score common formative assessments, the rubrics themselves become a part of the learning—not just a way to measure learning.

Consider the sample rubric in figure 8.2, which is written around three learning targets identified for the development of a research project. If the teacher gives a student a score of 3 for learning target A (development of a research question), a 4 for learning target B (use of appropriate sources of information), and a 2 for learning target C (organization of content), the student can determine the next steps she must take. Empowered with information within the rubric, she can use the descriptions of the three learning targets to improve the quality of her work. When students engage with the rubric prior to comparing it with their own work, they have a clearer understanding of the expectations and can more easily reflect on what they need to do to improve.

Learning Target	4	3	2	1
A: Development of a research question	Developed well-written research questions that were relevant to the research topic and hooked the reader	Developed specific research questions that were appropriate and relevant to the research topic	Used research questions that were not entirely appropriate or relevant to the research topic	Did not develop a research question
B: Use of appropriate sources	Used highly appropriate and varied sources of information in support of the research (books, articles, primary sources)	Used appropriate sources of information in support of the research (books, articles, primary sources)	Used limited but appropriate information in support of the research	Used no appropriate sources in support of the research
C: Organization of content	Presented information clearly and concisely with a logical progression of ideas and effective supporting evidence	Presented content with a logical progression of ideas and supporting evidence	Did not create a consistent focus or effective organization of information, and failed to provide an adequate amount of supporting evidence	Presented poorly organized and unfocused content, and provided little or no supporting evidence

**Figure 8.2: Sample rubric for student assessment.**

Correctly answering the question, Where am I going? relies on teams having identified their essential standards and unwrapped them into learning targets. It also requires that learning targets be written in student-friendly language. Students will need a clear picture of what the expectations for proficiency are so that they know exactly where they're going.

## Letting Students Know Where They Are Right Now

With Sadler's (1989) second question (Where am I now?), teachers must communicate to students what they have and have not yet learned as essential learning targets are assessed, and they must allow students to track evidence of their current status on these targets. As we've discussed before, using common formative assessments to provide feedback is much more effective than using grades.

As schools have moved from traditional grading practices to standards-based practices, we have seen teachers making a shift from grades to feedback. Before they explore the case for standards-based reporting information, many teachers believe that without grades, most students won't be motivated to learn new content. However, we know this isn't the case. Instead, collaborative teams often rely on Ruth Butler's (1988) research where students received either (a) a grade, (b) comments and a grade, or (c) comments on a task. When given another similar task to do, the only group whose performance increased was the group who received only the comments. Butler concluded that comments (feedback) are more effective than grades, which have little impact on student learning. She also concluded that when students receive comments along with a grade, they typically ignore the comments and consider only their grade.

Hattie and Clarke's (2019) definition of feedback shows us the importance of giving students feedback that will help them learn more about the target being assessed. Thus, we see that descriptive feedback is superior to evaluative feedback. Consider the examples in figure 8.3 that show the differences between descriptive and evaluative feedback.

*"Feedback is information about the task that fills the gap between what is understood and what is aimed to be understood."*  
(Hattie & Clarke, 2019, p. 3)

Descriptive Feedback	Evaluative Feedback
Providing another example from the text would strengthen your answer.	Good work!
You've skipped a step in your solution. Can you find it and correct it?	
You left out an important idea in your explanation. How did the main character's motivation change during the story?	Rubric score ¾
Can you explain why you think this is so?	Your answer is incorrect.

**Figure 8.3: Descriptive and evaluative feedback.**

Please note that even positive evaluative feedback isn't helpful unless you specifically indicate why the answer is correct.

Feedback's effectiveness is also influenced by its timing. Getting feedback during the learning process rather than afterward has positive results. Consider the research from Graham Nuthall and Adrienne Alton-Lee (1997) that finds students usually must be exposed to a new concept three to five times before they learn it. And Nuthall and Alton-Lee's (1997) data make it clear that students don't need new instruction as they are exposed to new learning opportunities; they need feedback about misconceptions or misunderstandings. This means teachers' feedback must be about the target or standard that the students are in the process of learning.

Consider this observation from Hattie and Clarke (2019) about Hattie's own research on feedback:

When I completed the first synthesis of 134 meta-analyses of all possible influences on achievement (Hattie, 1992), it soon became clear to me that feedback was among the most positive influences on achievement. . . . The mistake I was making was seeing feedback as something teachers provided to students. I discovered that feedback is most powerful when it is from the student to the teacher. What they know, what they understand, where they make errors, when they have misconceptions, when they are not engaged—then teaching and learning can be synchronized and powerful. Feedback to teachers makes learning visible. (Feedback effect size 0.73). (p. 5)

Let's circle back to the idea of self-efficacy and its link to the research on feedback, as our real goal in this process is to help students build self-efficacy. We know that students with high self-efficacy can see even negative feedback as a challenge and will likely respond with more engagement in the learning. However, students with low self-efficacy respond better to feedback about what they're doing correctly and will further engage in learning based on that information. With this in mind, the more trusting your relationships with all your students become, the more you can make proficiency expectations transparent, and the more effective your feedback will be.

To effectively help students answer the question, "Where am I right now?" team members should use feedback to guide students to recognition about what targets they've learned and which ones they still need to spend time with to be proficient. Quality feedback helps students set additional learning goals.

## Setting Goals to Close the Gap

When students are clear about the learning targets they must master and they receive effective feedback about their current learning status, they are ready to set personal learning goals that will help them see what they have to do to close the gap. A template to use with students for answering Sadler's third question (How can I close the gap?) is available in figure 8.4. See page 153 in the appendix for a reproducible version of this sheet.

To help students reach their goals, we suggest teams make two important considerations. The first is what activities and resources will be available for students to use to

My Goals for This Unit		
Student Name:		
Essential Learning Target	Is Mastered	Needs More Work
1.	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>
Activities and Resources I Plan to Use		
<ul style="list-style-type: none"><li>•</li><li>•</li><li>•</li></ul>		
My Plan		

**Figure 8.4: Student goal-setting sheet.**

review, practice, or explore learning targets they've not yet learned. These might include things like videos, practice programs, centers, games, flash cards, and so on. Some of these resources will target only the current unit of instruction, but others might be useful for several units. Teams must also consider whether students will be able to engage in these activities independently, they will need a partner or group, or they will need teacher direction. The second consideration is when time will be available for students to engage in this work. If teachers pack every lesson full of teacher-directed activities, students might be able to set goals but won't be able to follow up with student-directed activities and strategies. We know that time is a precious commodity, so it's important that any time teachers devote to accomplishing goals is effective. Of course, teachers must also take students' age into account when deciding how to find this time. As most primary teachers have discovered, even with activities intended to be independent, students need lots of modeling for these activities to work. A sample planning sheet can be found in figure 8.5 (page 126). See page 154 in the appendix for a reproducible version of this sheet.

### **Creating Opportunities for Students to Act on Assessment Results**

Collaborative team: \_\_\_\_\_

**Directions:** Work with your team to develop a plan for how students can act on assessment results. Part 1 asks you to select and list ways that would fit into any unit. Part 2 asks you to select and list ways that are specific to the current unit. Part 3 requires the team to plan when students will have the time to engage in these responses.

#### 1. Generic Opportunities

- Work on a unit overview sheet
- Vocabulary games
- Videos on topics
- Extension activities
- 
- 

#### 2. Opportunities Specific to This Unit

Independent Activities for This Unit	Group Activities for This Unit	Teacher-Directed Activities for This Unit
<input type="checkbox"/> Rewatch a video. <input type="checkbox"/> Redo missed problems. <input type="checkbox"/> Practice with the _____ activity. <input type="checkbox"/> Review vocabulary. <input type="checkbox"/> Redo a lab experiment that failed. <input type="checkbox"/> Review prior assessments.	<input type="checkbox"/> Practice with a partner. <input type="checkbox"/> Solve problems together. <input type="checkbox"/> Work on a new lab experiment. <input type="checkbox"/> Do a re-engagement lesson. <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Come up with a small-group response. <input type="checkbox"/> Do an “ask a question” activity. <input type="checkbox"/> Do a lesson designed for review. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

#### 3. Ways of Finding the Time

- Response days
- Choice time
- Tier 2 time
- Center time
- Other: \_\_\_\_\_

**Figure 8.5: Planning sheet for goal-setting opportunities.**

A familiar strategy that you might tap into is the I Do / We Do / You Do approach. In the beginning “I do” phase, teachers use minimal-risk strategies, such as modeling and using think-alouds to show students the steps and thinking behind key processes, such as comparing the quality seen in a piece of writing to indicators on a rubric. Students then reflect and comment on their perceptions of the process. In the “we do” phase, the teachers and students perform the process at the same time, a low-risk activity. For example, they might examine student samples of a mathematics problem to determine the types of errors that were made. Then teachers guide students through the process,

often in cooperative groups, and ask students to do a similar activity. Finally, during the “you do” portion of instruction, students apply their newly learned strategy by examining their own work or the work of their peers, a medium-risk activity. Teachers ask guiding questions throughout the process that help structure the learning.

The goal of the I Do / We Do / You Do approach is to scaffold the release of responsibility for learning by moving from simple to more complex analyses and working from a nonthreatening context (minimal risk) to one that focuses on students’ own work (medium risk). Figure 8.6 outlines this process.

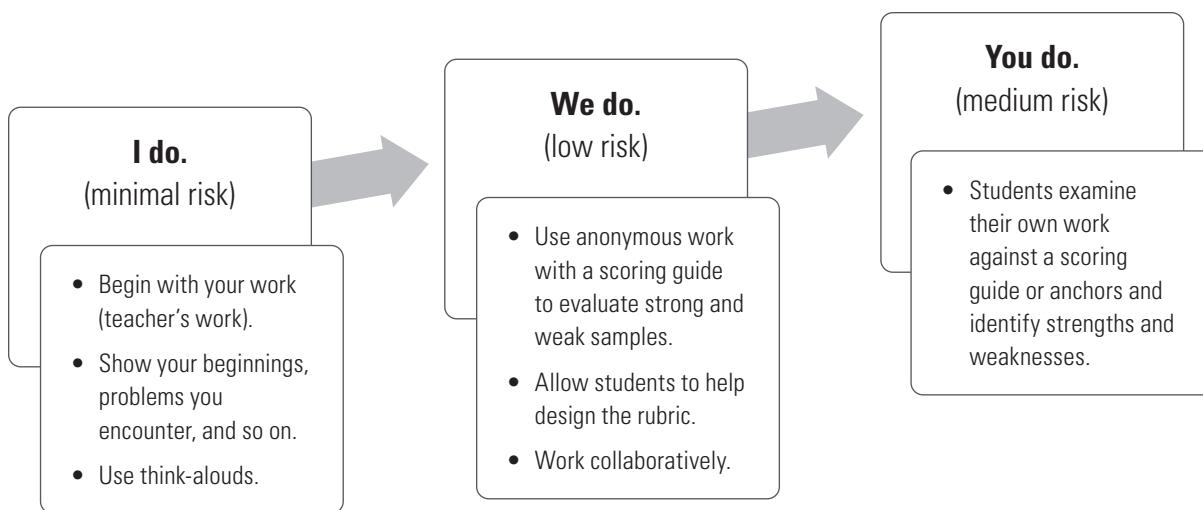


Figure 8.6: The I Do / We Do / You Do process.

## Seeing Learning Through Student Eyes

By bringing students into the assessment process, you and your team accomplish several things.

- You empower students with clear learning targets so that they really know what they’re expected to learn and why.
- You help students examine how they’re doing by providing them with specific feedback and a process for analyzing where they stand in relation to the targets.
- You help build students’ understanding of strategies and quality so that they can arrive at the intended target.
- You see a subtle but clear shift from teacher responsibility for student learning to shared responsibility or partnership in learning, in which the student is an actively engaged decision maker who uses feedback and data to plan next steps.

John Hattie (2009) references a model of *visible learning*, which he defines as “when teachers see learning through the eyes of the students *and* when students see themselves as their own teachers” (p. 238). In his own words, Hattie (2009) chooses to “work as a coach, not a scorekeeper” (p. 240). By engaging students in the assessment process and being a partner in their learning, you are coaching them along their learning journey.



# Strengthening and Sustaining the Work



## KEY POINTS

- In a PLC, the goal is continuous improvement. Common formative assessments can be the driving force of that improvement.
- Teams can sustain their efforts by continuously focusing on the why, examining their results, and celebrating their successes.
- Common formative assessments are best implemented as part of a system—one that informs interventions and teacher practice on a schoolwide basis.

We've had the pleasure of working with teams across the United States as they have developed and used common formative assessments. With few exceptions, two patterns have emerged. First, when teams collaboratively design, implement, and analyze common formative assessments, their *collective* understanding of what students should know and do greatly increases. Second, when teams use common formative assessments, they shift from *lesson planning* to *learning planning*. Teams are focused on getting the desired results from students and responding accordingly when students are not learning. Teams steeped in the use of common formative assessments don't blame the students—on the contrary, they examine their instructional practices and find solutions for supporting student learning.

To continue their patterns of success, teams using common formative assessments and the processes described in this book must consider several important questions: How do teams keep improving? How do they stay motivated? How do they sustain their efforts?

In this chapter, we'll try to answer these questions by examining several factors that help teams sustain success and continue to improve.

## Remain Focused on the Why

At times, teams focus so closely on the product they are creating that they lose sight of why they are doing the work. They want to "get it right" and "check it off the list." They sometimes rush through the conversations about what to measure or the analysis of results because they feel pressure to finish—whether because of external time constraints

or a desire to simply clear their plates of the tasks. This is where understanding the *why* is crucial. Why are they doing common formative assessments?

In *Revisiting Professional Learning Communities at Work, Second Edition*, Richard DuFour, Rebecca DuFour, Robert Eaker, Mike Mattos, and Anthony Muhammad (2021) discuss the importance of building a culture in which results drive the decisions schools and teams make. Popham (2008) also describes such a culture in his discussion of schoolwide implementation of best practices in assessment. We assert that when every team utilizes common formative assessments, and there is a culture of continuously using data to adjust instruction *collectively*, then a school has shifted to that culture of results.

We want teams to continuously remind themselves that the purpose of these meaningful embedded assessments is to inform both teachers and students about where they are in relation to specific learning targets so that *students can learn more*. Ideally, we would like to see this articulated and clarified across every team in a school. This would dispel any misconceptions about how the results might be used. In our experience, teachers are more willing to engage in the common formative assessment process once they feel sure that assessment data will be used to help identify students who are experiencing difficulty, and *not* to judge them as professionals.

## Reflect on All the Benefits of Using Common Formative Assessments

As teams experience the plan-do-study-act cycle (described in chapter 1, page 5) inherent in the process of using common formative assessments, they become much more knowledgeable about not only what students are expected to know but also how they can best teach this knowledge. The conversations that take place during the unwrapping process seem to automatically guide teachers toward better instruction. Pairing those conversations with backward planning of meaningful assessments, you would have difficulty *not* learning along with your colleagues. Common formative assessments improve student learning, but you must also recognize their power to improve teacher learning and impact instructional practice.

We recommend that teams take time every now and then to reflect on the impact they have made from an instructional standpoint. In our work, we have opportunities to hear many testimonials. We may hear a veteran teacher assert that collaboration has changed the way they do things in their classroom because they've learned so much from their colleagues. Alternatively, we may hear from a first-year teacher how much they've relied on their teammates to support them in navigating their experience. Don't be afraid to celebrate your own work as a team. Periodic reflections will help you conquer difficult situations and provide the momentum to keep moving ahead.

## Provide or Seek Support for Teams

Teams need support to continue to successfully design and implement common formative assessments. Teams must have time to meet to do their work collaboratively. This means that time for collaboration must be built into the contractual school day. The amount of time needed to do this work varies, but we recommend that teams have at

least forty-five minutes per week. Teams with longer and more frequent common planning time find that they can establish a pattern to their workflow, planning and writing their assessment during one meeting and analyzing the results and planning the response during a second meeting. As a result, these teams frequently find that they are able to use common formative assessments as often as weekly, especially once they've had experience in planning assessments and writing questions. If you are in a leadership position, work collaboratively to identify areas in which this time might be found. If you're not in a leadership position, work with your administrator in a solution-oriented way. Remember to focus on the why, and you'll be propelled to find the time to meet.

Teams also need time to respond to the assessments they administer. As we shared in chapter 3 (page 35), teams must build time into their pacing guides to respond to the data they've gathered from common formative assessments. By including this time in the pacing guide, teachers don't have to rush through the most important part of the assessment—the response to the information they gathered from student work. We also know how important it is for leaders to build a master schedule that allows teachers time during the school day to regroup students across a grade level or content area. During this time, students receive Tier 2 support if they still haven't mastered essential learning targets after the common formative assessment and response. When an intervention time is built into the school day, teachers are able to share students and, thus, provide a more targeted response. We recommend, however, that you don't create a master schedule with Tier 2 intervention time until you are ready to write your common assessments and use the results to identify which students need that extra support. Schools that restructure their schedules first often find that they have created a period where teachers implement remedial classes or programs rather than immediately respond to the timely formative assessments aligned with their instruction.

Building a supportive culture for this work involves ensuring that teachers are comfortable using data. Data help you help your students. Data are not information for placing blame. To create a supportive culture, data conversations must stay focused on the facts—the student results and planning for response. Some schools and districts have gone so far as to promise that common formative assessment data will not be used to evaluate teachers.

Leaders can emphasize the benefits of a data-rich culture by making data easily accessible to all teachers. When there is a computer system teams can use to help them manipulate and understand their data, teachers must be trained to use the system and have access to it from their desktop or laptop computers. We realize that security issues are important considerations when deciding who can use the data, but if leaders want their teachers to make the quick decisions needed to respond to common formative assessments, they must have immediate access to their data. We've also learned how important it is to have a common way to store information in shared folders so that everyone who needs data access has it.

## Build Capacity to Lead the Work

As we've consistently shared within this book, using common formative assessments yields heightened learning for both students and teachers. In a PLC, there is collective ownership of the process, and to that end, the process itself should be guided not by one

or two individuals, but by teams empowered with the capacity to do the work. Common formative assessments are a perfect vehicle to begin building capacity. In the plan-do-study-act model, teams participate in what researchers consider to be the highest-quality professional development work (Newmann & Wehlage, 1995)—work that is directly related to students, team based with an emphasis on sharing expertise, and embedded into the school day. Yet to move forward in this somewhat-uncharted territory, some teams need time to work with or be facilitated by supportive leaders and coaches who can help them be learners. Ideally, a district or school will design and implement a way to support teams as they grow in their ability to guide the work. Once that is established, it's also critical for teams to go beyond what they view as traditional team leadership. While it's typical to have a grade-level lead teacher or department chair facilitate team meetings, we encourage teams to spread the leadership across all members. The members of the team should each have a role in guiding the work of the team. In our book *Make It Happen* (Bailey & Jakicic, 2019), we share strategies teacher leaders and coaches can use to effectively facilitate team conversations.

## Remember That Experience Yields Efficiency

It's essential that team time is spent in a worthwhile fashion. In the beginning of this book, we discussed how teams should establish a workflow wherein their decisions and actions from one meeting are connected to the decisions they make and actions they take in their next meeting. We believe that this empowers teams to see the meaning behind their work and make connections along the way. Over time, teams get into a groove with their work, and the plan-do-study-act cycle shifts from feeling a little stiff or imposed to being a natural way of doing business. This is particularly important to remember when teams are just starting the process—they may feel uncertain or frustrated at the beginning.

In fact, we believe that teams will establish a routine as they plan and implement each unit of instruction. They will also establish a routine for the school year (and beyond) to make a long-term difference in their own learning and their students' achievement.

## Be Attentive to Both Immediate and Systemic Learning

Used effectively, common formative assessments guide teams to implement an immediate response to the data—timely corrective instruction for students who demonstrate the need for additional time and support. Teams identify learning targets, design an aligned assessment, assess students, and swiftly provide support for students who do not demonstrate proficiency.

What's also very exciting is when teams use common formative assessments to bring about systemic change and improvement, including evaluating and changing long-term expectations for students as a result of the data teams are gathering. Our experience is that after a year or two of implementing common formative assessments, teams have students start to come to them already having learned some of the targets the team members used to teach. When this happens, teams must decide whether to eliminate the duplicate essential standards from their lists or to increase the rigor of expectations for student learning. Consider the following example.

The fifth-grade team at Longfellow Elementary had been working with this Common Core standard for English language arts: “Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text” (RI.5.2; NGA & CCSSO, 2010a). For two years in a row, as specified in their pacing guide, team members gave students a preassessment for writing a summary from an informational text. And for two years in a row, they found that students were already able to do the standard as written. This team’s learning prompted a conversation in which members discussed a need to refine their pacing guide. In addition, the team members discussed how they might further use this information to ensure that all students were learning at high levels, even those who already knew the information. The team developed the following three options.

1. Skip instruction on this standard because most students are proficient (increasing the time available for other standards).
2. Extend students’ learning by working with them on paraphrasing text information—a skill not taught in fourth grade.
3. Look at the sixth-grade standard, which expects students to be able to summarize the text distinct from personal opinions or judgments.

The fifth-grade team also met with the fourth- and sixth-grade teams at the school and began looking at how the standard articulated vertically across their grade levels. They collectively decided on option 2, in which students would be expected to effectively paraphrase the key details they wanted to include in their summary. They also agreed to teach the supporting standard, which asks students to “quote accurately from a text” (RI.5.1; NGA & CCSSO, 2010a). Proficiency expectations included that students needed to decide when to quote and when to paraphrase.

This scenario shows a team-created system change that would impact student learning. Throughout this process, three grade-level teams examined their practices, refined their pacing guide, and identified instruction that guided students toward deeper understanding across all classrooms.

For each unit, make a note of the essential standards you decided on and whether they ended up being the right essential standards. Keep a record of the pacing decisions you made and whether they were appropriate as implemented. If there was a problem with your assessment plan, make a note of it so that you don’t use the same assessment the following year. Finally, make a record of any assessment items that were problematic. For example, were the items written at the appropriate level of rigor? Were there distractors for multiple-choice questions that didn’t work? Were items ambiguous? This is information that will be important next year, but team members are unlikely to remember it in a year’s time.

## Celebrate Successes

This is hard work; there’s no other way to say it. But it’s rewarding work, and it’s crucial that you celebrate the successes that result from this work at the team, school, and district levels. The most obvious and direct way in which teams can celebrate is to look at the impact using common formative assessments has made on the students in their classes. Use some of the following critical questions to identify your successes.

- How many students now demonstrate proficiency in absolutely essential learning targets because these students were monitored and received corrective instruction?
- Have more students demonstrated that proficiency this year as compared to last year?
- What have we learned as a team?
- How empowered are our students in the process?

There are a number of ways in which teams and schools share the news about their successes. The AllThingsPLC website ([www.allthingsplc.info](http://www.allthingsplc.info)) offers many ideas for celebrating within PLCs. We strongly encourage that successes are made public within schools, particularly across teams. Teacher teams will build momentum together, and the success and learning shared by one team can certainly propel others forward. We also believe teams should share with students and parents how the use of these powerful measures is making a difference in their (or their child's) learning. Sharing successes builds shared knowledge!

## Do the Right Work

We hope the fact that you are reading the final chapter of this book means you have already tried some of the steps outlined in previous chapters. We know that this process requires teams to take risks and try things they may find unfamiliar. However, the process we've laid out is intended to allow you the flexibility to develop and use common formative assessments that will provide you with the information you need to improve student learning.

It is important that your team continues to learn together, but it is equally important that your school and district continue to learn as well. Each year, schools and districts should come together to examine their collective results to ensure that their collaborative decisions are making a difference for students. In their book *The Knowing-Doing Gap*, Jeffrey Pfeffer and Robert I. Sutton (2000) remind us that "organizations that turn knowledge into action by not letting talk substitute for behavior are relentlessly action oriented—in their language and in ensuring through follow-up and assigning accountability that something happens as a result of talk, planning, and decisions" (pp. 64–65).

We recognize that not all teachers in every school or school system are willing to immediately embrace the change that this work requires. However, when teachers begin to act as though they believe all students can learn, and results show that more and more students are learning because of these behaviors, teachers' beliefs will start to change (Pfeffer & Sutton, 2000). We encourage you, then, to get started with the work. Once you begin to see a difference for your students as well as for yourself, you will wonder why you were ever concerned about whether this was the right action to take!

You must get started in order to move forward and help others in your school and district move forward. This is the *right work* to be doing to improve student learning. We encourage you to use the materials and ideas in this book to support your work, learn together, and celebrate your successes!

## APPENDIX

# Tools for Teams

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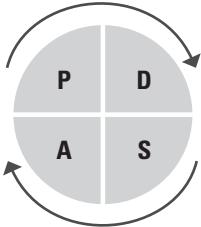
## Figure 1.2: Protocol for Identifying Norms

Step	Action
1	Make sure the team members understand why they are writing these norms and how they will use the norms to make their collaborative practices more effective. Remind the members of the areas they might want to consider as they are writing their own norms: decision making, participation, time management, response to conflict, and confidentiality.
2	Ask team members to each reflect on unsuccessful teams they've been on before or observed in their work. What negative behaviors prevented the teams from functioning at high levels? Members should write these behaviors down, each on a separate sticky note. Make sure teachers do this step individually without discussion.
3	Collect and review all the sticky notes. Ask for clarification if needed, and cluster any similar behaviors together.
4	Ask team members to consider successful teams they've been part of. What positive behaviors did these teams engage in? Again, have members write these behaviors on sticky notes. These sticky notes should be a different color than the sticky notes in step 2.
5	After collecting the sticky notes from each member, cluster together any that are similar, and seek clarification on those that are ambiguous. Take some time to link the positive behaviors to the negative behaviors that they would diminish if implemented. If a negative behavior doesn't have a corresponding positive one, the team should discuss and develop a positive action to diminish the negative behavior.
6	Initiate an open discussion about which of the positive behaviors the team members want to include on their final list.
7	If there is disagreement, allow time for discussion about how the norm would help the team in its work. After the norm has been thoroughly discussed, use a <i>fist-to-five</i> strategy (page 16) to see where the team is on consensus for that norm.
8	Next, the team members need to agree on how they will handle situations when a team member violates an agreed-on norm. Suggest that they have to be willing to take responsibility for the way the team works together and that they must "care enough to confront."
9	Capture the final set of norms in writing, and "publish" them for use at all team meetings. Start each meeting with a review of the norms, and plan to revisit them twice a year.

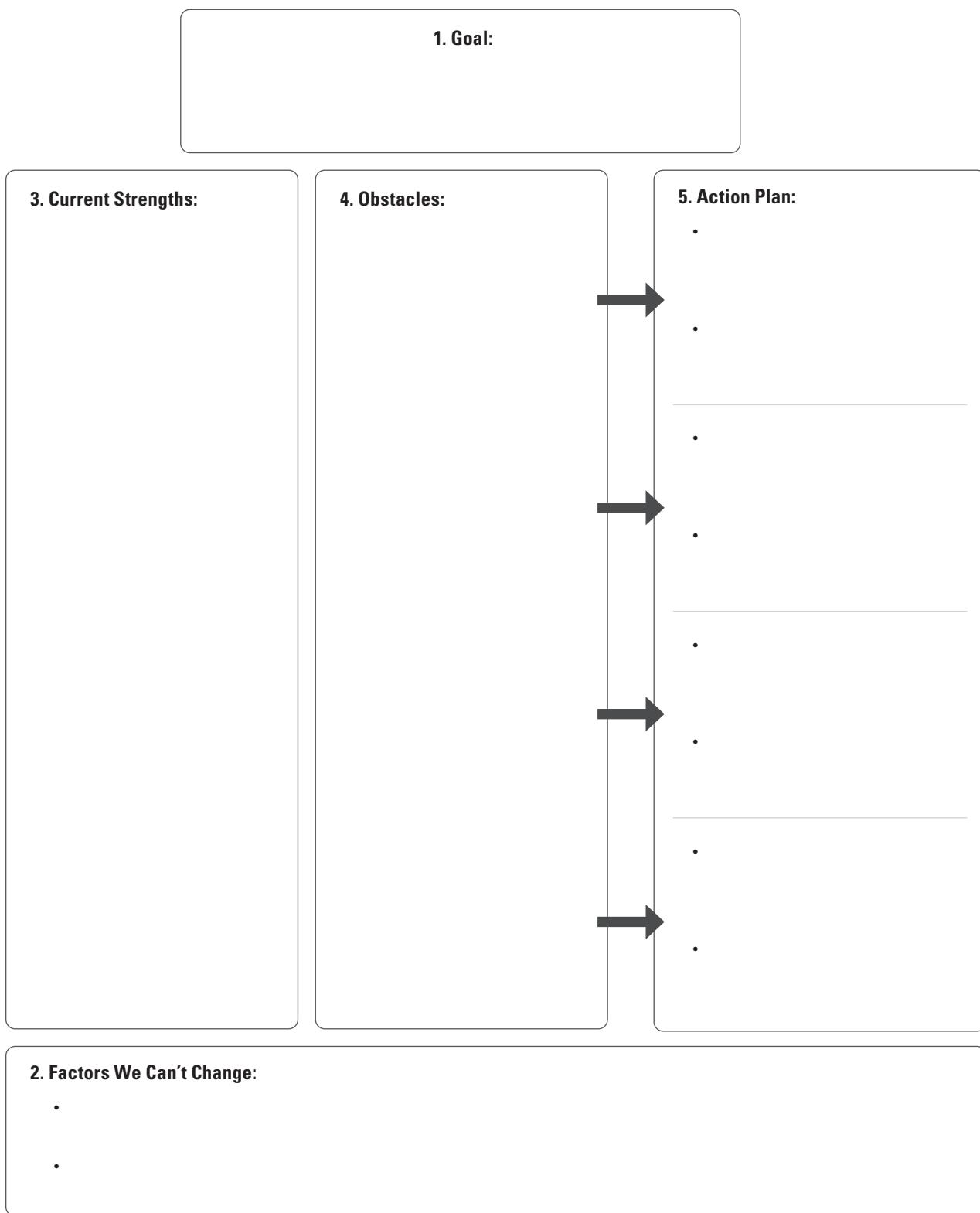
Source: Adapted from DuFour, R., DuFour, R., Eaker, R., Many, T. W., & Mattos, M. (2016). Learning by doing: A handbook for Professional Learning Communities at Work (3rd ed.). Bloomington, IN: Solution Tree Press.

## Figure 1.3: Team Meeting Agenda Template

Successful teams build routines into their meeting agendas that help members stay on track with their work, that provide structure to their collaborative conversations, and that facilitate the development of work products. Use this template with your team to set a meeting agenda. Note that in the team norms section, teams can record their list of norms and also reference any norms they will be actively monitoring.

Facilitator: _____ Recorder: _____ Timekeeper: _____ Other roles: _____	Team norms:
Meeting Element	Notes
<p><b>1. Focus it (the first three to five minutes):</b> The facilitator reviews the meeting focus and desired end result. Provide a brief description of the process. Answer the following.</p> <ul style="list-style-type: none"> <li>• Where are we in the PDSA cycle?</li> <li>• What do we plan to accomplish today?</li> <li>• What will we walk away having reached or created (for example, decisions, products, or a plan of action)?</li> <li>• What process will we be using (for example, brainstorming, examining the protocol for reviewing student work, or identifying assessment items)?</li> </ul>	 <p>Meeting focus:</p>
<p><b>2. Do it (the majority of the meeting):</b> Implement the following actions.</p> <ul style="list-style-type: none"> <li>• The facilitator guides the team through the process.</li> <li>• The recorder takes notes on key decisions or products made.</li> <li>• The timekeeper helps monitor the progress of the team during the allotted time.</li> </ul>	Notes:
<p><b>3. Review it (the last five minutes):</b> Discuss what the team has accomplished, and determine next steps and assignments (time will vary). Do the following.</p> <ul style="list-style-type: none"> <li>• Collaboratively establish the next agenda.</li> <li>• Reflect on norms as appropriate.</li> </ul>	<p>Action steps and the responsible team members:</p> <p>Date of the next meeting: _____</p> <p>Agenda for the next meeting:</p> <p>Data or information to bring to the next meeting:</p> <p>Reflection on norms:</p> <p>Questions for an administrator:</p>

Source: Adapted from Bailey, K., & Jakicic, C. (2019). *Make it happen: Coaching with the four critical questions of PLCs at Work*. Bloomington, IN: Solution Tree Press.

**Figure 1.4: SMART Goal Planning Tool**

Source: Adapted from Dennis King, Solution Tree Associate. Used with permission.

## Figure 3.2: Protocol for Identifying Essential Standards

Step	Description	Expected Product
1	The team discusses the four criteria it will use to choose its essential standards: (1) readiness for the next level of learning, (2) endurance, (3) alignment to high-stakes assessments, and (4) leverage.	Team members have a common understanding of how to determine which standards will be on their list and which ones will not be on their list.
2	The team considers how to chunk the standards if necessary. For example, in ELA, the first chunk can be the reading and reading foundations standards, the second chunk the writing standards, and the third chunk the language and speaking and listening standards.	The team members have a plan for the work ahead—which standards they will work through first, second, and so on.
3	All team members independently work through a chunk of standards and choose those that they believe fit one or more criteria.	Team members each mark their copy of the standards with those they believe are essential. Team members should complete this step while they are together so none of them spends a long time on this step. The more time a teacher takes, the harder it is to narrow the standards to the essentials.
4	The team builds consensus on its draft list of essential standards, making sure all team members participate in the process. Some standards will start with total agreement (everyone believes they are or are not essential), but the majority of standards will require discussion to reach consensus.	The team develops a rough-draft list of essential standards that represents the collective thinking after discussion.
5	The team members examine data of student performance in their content area or grade level. Are there areas of particular strength or weakness? If so, the team ensures its essential standards list reflects this by including additional standards to shore up the weaknesses.	Team members make changes to the draft list that reflect strengths and weaknesses.
6	The team uses documents released by the district or state to ensure that the drafted expectations align with the expectations for students. These documents might include test specifications, blueprints, or documents developed by the authors of the standards. For example, if assessment blueprints show an emphasis on text-dependent questions, it's important that the team reflects this emphasis in the draft list.	The team can change or add to the rough-draft list it puts together in order to effectively reflect what students must be able to do on high-stakes tests.
7	Team members work with the other teams in their school to vertically align their essential standards.	A final-draft list of essential standards for each team in the building is created, and it reflects the outcomes of the preceding steps.

## Figure 4.6: Protocol for Unwrapping a Standard

### Facilitator Notes

Remind members of the team about the goal of the session and the purpose and importance of unwrapping the standards.

- The purpose is to get team clarity of the essential standards through an examination of the skills and concepts, the big ideas, and potential essential or guiding questions that they address.
- Why is this important? The highest levels of learning occur when all teachers have agreement on the prioritized curriculum, and when students are clear about what they're trying to learn. By unwrapping the standards, we can all make sure we're focusing on the same learning targets that are contained within the standard. This will help us create aligned instruction and common assessments.

### Materials and Equipment Needed

- Copies of the essential standards for the selected content area
- An unwrapping template or graphic organizer (copies for everyone or access to a shared electronic document)
- Reference materials (standards frameworks, DOK charts, curriculum guides, or released items from high-stakes assessments)
- Equipment or materials for the group process (Facilitator note: You can complete this process using a document camera, a shared electronic document, chart paper, or a whiteboard.)

### Unwrapping Process

*Step 1: Annotate the standard to illuminate key words.*

- Make sure everyone has a copy of the selected standard from the essential standards.
- Ask team members to annotate the standard. (Circle the key verbs [skills] and underline the important nouns and noun phrases [concepts] contained within the standard. Put brackets around any information that describes the context in which a student must perform the skills [what types of problems or texts].)

*Step 2: Use the annotations to identify and organize the learning targets embedded in the standard.*

Using the graphic organizer or template, collectively identify and organize the concepts (the need-to-know nouns) and the skills (the need-to-do verbs). Team members continuously reference their annotated standard as well as other support materials to ensure that they are considering all the skills and concepts needed.

(Facilitator note: Unwrapping a standard does not mean one needs to include every prerequisite that a student must bring to the table. There is an assumption that students enter with knowledge and skills from the previous grade. Identify the academic language that teachers must reinforce or establish.)

*Step 3: Check and clarify alignment of content and rigor.*

Examine the list of identified skills and discuss the level of thinking associated with each (using DOK or other shared language to describe the level of thinking).

### Optional Steps (suggested for once the standard is unwrapped)

*Step 4: Identify the big idea behind the standard.*

*Step 5: Identify essential questions that will lead to the big idea and serve as a focus for instruction.*

## Figure 4.7: Unwrapping Template

<b>Annotated Essential Standard:</b>			
<b>Learning Targets</b> ( <i>Arranged from bottom to top or simple to complex</i> )		<b>DOK Level</b>	<b>Formative Assessment</b>
<b>What must students know?</b> Information, definitions, processes, concepts, and big ideas that students will know or understand			
Academic Language and Vocabulary			

## Figure 5.2: Assessment-Planning Template

This template can be used to blueprint either a formative or an end-of-unit / summative assessment.

Learning Target	Level of Cognitive Demand				What Proficiency Will Look Like
	DOK 1	DOK 2	DOK 3	DOK 4	

## Figure 5.6: Common Formative Assessments Checklist

Design	Yes	No
The targets come from identified power or essential standards.		
The assessment is written around learning targets, not standards.		
The assessment is written around a small number of learning targets.		
The purpose is to provide time and support rather than a grade.		
The type of assessment item the team uses matches the learning target's level of thinking.		
The team writes the selected-response items to find out what students know, not to trick them.		
Constructed-response items provide context and specific directions to make expectations clear to students.		
The team agrees on what proficiency looks like for each target.		
The team creates an answer guide for its assessment.		
Use	Yes	No
The team collaboratively writes and administers the assessment in a common way.		
The team collaboratively scores items using a common rubric.		
The data meeting happens as quickly as possible after the assessment.		
All teachers bring their data, including student work, to the data meeting for discussion.		
The teachers use data for planning what to do next, not to judge their effectiveness.		
Students are involved; they know the learning targets and receive feedback on their work.		
Students get more time and support based on the results.		
Teachers reassess students after corrective instruction.		
Students who master learning targets receive more challenging work after teachers analyze the data.		

Source: Bailey, K., & Jakicic, C. (2019). Make it happen: Coaching with the four critical questions of PLCs at Work. Bloomington, IN: Solution Tree Press, p. 86.

## Figure 5.7: Sample Protocol for Developing an Assessment

### Facilitator Notes

Remind team members that the purpose of each common formative assessment is to provide data back to the team about which students have or have not mastered each of the learning targets being assessed. The assessment needs to be short and easy enough to score so that the team can respond quickly to the results.

The team will respond to students who need additional time and support around a specific learning target, those who might benefit from additional practice, and those who would benefit from opportunities for enrichment and extension.

### Materials Needed

- The unwrapped organizer for the standard(s)
- The template for the assessment plan

### The Design Process

#### *Step One: Decide What to Assess*

Consider all the learning targets you have found during the unwrapping process that are being taught during this part of the unit. Decide which of these targets to assess. Remember you do not have to assess every learning target.

Consider:

1. Which targets are most likely to cause certain students difficulty?
2. Which targets are most important or prerequisite skills for information to come later in this unit?
3. Which targets are absolutely necessary for students to know?

#### *Step Two: Decide How to Assess*

For each learning target, make sure team members agree on the expected level of thinking for mastery of that target. For each learning target, choose the most appropriate assessment method: selected response, constructed response, or performance assessment. Make sure that the thinking level you're expecting can be assessed with the type of assessment you've chosen.

#### *Step Three: Develop the Assessment Plan*

Complete the assessment plan. Decide what type of items and how many items you will use to assess student learning on each target. Consider how long the assessment will take to administer and how much time teachers will need to score the results.

#### *Step Four: Determine the Timeline*

Decide the date or range of dates for administering the assessment and the date for the next meeting to discuss results. Remember to consider scoring time before establishing the date for the meeting to discuss the data.

#### *Step Five: Write the Assessment*

Use the guidelines for quality item writing while writing the assessment.

#### *Step Six: Review the Assessment Before Administration*

Review the assessment to make sure that the directions are clear and that students will understand what you are expecting from them during the assessment.

#### *Step Seven: Set Proficiency Criteria and Decide How to Gather the Data*

Determine what the score for proficiency will be so that data can be reported back by learning target and by student.

*Source: Bailey, K., & Jakicic, C. (2012). Common formative assessment: A toolkit for Professional Learning Communities at Work. Bloomington, IN: Solution Tree Press, p. 107.*

## Figure 6.1: Five-Step Team Unit-Planning Process

**Question 1: What do we want students to know and be able to do?**

**Step 1:** Identify the essential or power standards for the unit.

<b>Essential standards taught in this unit:</b>
<b>Supporting standards taught in this unit:</b>

**Question 2 (summative or end of unit): How will we know if they have learned it? What evidence will tell us they meet the standards by the end of the unit?**

**Step 2: Discuss evidence of the end in mind (summative measure)**—How you will know if students achieved these standards? What type of task could they perform or complete by the end of the unit? With what level of proficiency? With what type of problem or text (stimulus)? (Note: Use released items, and look at prior and subsequent grade levels or other information to gain insight about the types of tasks you expect students to perform and the stimuli [problems, text, and so on] they will use.)

**Step 3: Share the specific learning targets (bite-sized pieces of learning) that lead to students accomplishing the unit goals. Be sure to identify the main ideas emphasized in the unit.** (Note: Not everything is written in the standard—teams should use their professional judgment to identify the learning targets. Read “between the lines” of the standard language.)

Learning Targets	Assessment Items
<b>What should students know?</b> (Information, definitions, processes, concepts, main ideas that students must know or understand)	Big idea:
<b>What should students be able to do?</b> (Performance, skills, or actions students must do or demonstrate)	
<b>What academic language / vocabulary should students acquire and use?</b>	

**Question 2.5 (formative): Where in the unit does it make sense to see if our students are learning what we are teaching?  
What evidence will we collect along the way?**

**Step 4: Do the following—**

- Identify specific targets the team will commonly assess (formatively). Your team should collectively monitor learning targets that are typically challenging for students.
- Identify or develop brief but aligned assessment items that will provide useable evidence to the team about their students' understanding and skill. Discuss the level of proficiency you would expect for the assessment item or items.

**Step 5: Plan the sequence of instruction and the timing for common formative assessments**—As the team designs the plan, they should include the quality instructional practices that support high levels of student learning (Question 2.5: What are best instructional practices or strategies we will embed in this unit?).

<b>Sequential Plan for Unit Instruction and Monitoring Learning</b>		
<b>Days</b>	<b>Lessons or Activities</b> (What learning targets will you teach? How will you teach them?)	<b>Embedded Assessment Checkpoints</b> (What are the formative and summative checkpoints?)

Notes:

*Source: Bailey, K., & Jakicic, C. (2019). Make it happen: Coaching with the four critical questions of PLCs at Work. Bloomington, IN: Solution Tree Press, pp. 101–103.*

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## Figure 6.2: Workflow for Backward Unit Planning

Workflow for Backward Unit Planning	
<b>Question 1:</b> <i>What do we want students to know and do (in this unit)?</i>  Note: Teams may need to first unwrap the standard or standards to ensure that the end in mind reflects all aspects of the standard.	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Step 1: Identify essential standards being addressed in this unit.</b></li> <li><input type="checkbox"/> <b>Step 2: Define the end in mind.</b> What will students be able to do by the end of this unit?               <ul style="list-style-type: none"> <li>• Describe the end-of-unit performance task or evidence of meeting the standard or standards.</li> <li>• Reference the end-of-year picture of proficiency, released high-stakes assessment items, exemplars, and so on.</li> </ul> </li> <li><input type="checkbox"/> <b>Step 3: Determine or design the end-of-unit summative assessment (if not already developed), determine when and how it will be given, and develop the criteria for proficiency.</b> If the assessment is already developed, make sure it aligns with the end in mind. Teams can also set a SMART goal at this point.</li> <li><input type="checkbox"/> <b>Step 4: Unwrap or unpack the standards to identify learning targets (the ladder of learning that will take students to that end in mind) and their level of rigor (their DOK level).</b> If the standards were previously unwrapped, examine them to clarify or revise. Clarify academic language.</li> </ul>
<b>Question 2:</b> <i>How will we know they learned it?</i>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Step 5: Determine the priority learning target or targets for formative assessment, and plan the assessment.</b> (Which learning targets will be pivotal in building student proficiency, or which are most challenging for students and therefore must be collectively monitored?)</li> <li><input type="checkbox"/> <b>Step 6: Design the common formative assessment items to measure whether students acquired the different learning targets; determine when you will give them, how you will administer them, and the agreed-on criteria for proficiency or quality for each learning target.</b></li> </ul>
<b>Question 2.5:</b> <i>What are the instructional practices and process we will use to ensure students learn at high levels?</i>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Step 7: Discuss the instructional flow for the unit and effective instructional activities and strategies that will be used.</b> Specify the timing of all common formative assessments, and ensure that the standards and learning targets are addressed. Build in response time.               <ul style="list-style-type: none"> <li>• Consider proactive differentiation and scaffolds.</li> <li>• Consider students' language needs.</li> <li>• Consider best practices for quality instruction, including engagement, empowerment and ownership of learning, and feedback.</li> </ul> </li> </ul>

## Figure 6.11: Team Process for Developing Rubrics

**Step 1:** Determine the essential standards and their subset of learning targets that you will be monitoring with the rubric.

- What knowledge (content, information, procedures, or concepts) do we want students to have?
- What skills do we want students to integrate, apply, or demonstrate?

**Step 2:** Design the specific task that aligns with and provides data on how students are attaining these prioritized learning targets.

- What is the student prompt for the task?
- Does the task require the integration of several skills and concepts?
- Does the task require collaboration?
- Is there a product involved?

**Step 3:** Discuss and determine the most appropriate rubric design.

- Holistic
- Analytic
- Single point

**Step 4:** Referencing the learning targets, determine the elements the rubric will reflect. (Note: When using an analytic or single-point rubric, these will become your criteria or dimensions of the task. When using a holistic rubric, the characteristics are integrated in a single descriptor for each proficiency level.)

**Step 5:** Determine your quality indicator framework (for holistic and analytic rubrics).

- Number of performance levels with assigned scores (for example, three or four levels)
- Labels (numerical or descriptive)

**Step 6:** Complete descriptors for the proficient level first (along all criteria and dimensions), and then complete descriptors for the levels above and below proficiency.

**Step 7:** Assemble student work samples (if available) and review them against the rubric.

- Will the rubric be guiding for teachers (in terms of instruction and assessment)?
- Will the rubric be guiding for students (so they know where they are and how they can improve)?
- Will the rubric be focused on the true end in mind for the task?

**Step 8:** Define the point values for all descriptors. Create your instructional game plan for sharing this rubric and integrating it into formative assessment and instruction.

## Figure 7.5: Team Protocol for Analyzing Assessment Results

### Team Data Analysis Protocol

Use results from common formative or end-of-unit assessments.

*Note: Enter data prior to the meeting and have access to student work for the discussion. Designate a timekeeper and a notetaker for the conversation.*

#### Question One: What? (ten minutes)

- What targets seem to have been well established? Not well established?
- Are we seeing some common errors or misunderstandings?
- Is there a common group of students who are not scoring well?
- Do we see significantly different results among our classes?
- Are there any “fuzzy” areas in the scoring of student work? Do we need to calibrate and clarify?
- What student groupings emerge from the data (such as not proficient, close, and beyond proficient)?
- Which students have not achieved proficiency? On what targets do they need support?
- Which students have gone beyond proficiency and may benefit from extended learning opportunities?

#### Question Two: So What? (seven minutes)

- What is our hypothesis for these results?
- Did we actually teach what we intended?
- What might be the obstacle for students who are struggling?
- Are our resource materials actually aligned to our targeted learning outcomes?
- What instructional strategies appeared to be highly effective when we were examining our different results?
- Are there any practices we need to research or learn about in order to better support student learning?

#### Question Three: Now What? (intervention and extension plan; twenty minutes)

- What concepts or skills need to be retaught to the whole class (based on our data)?
- What short-term interventions and reteaching will we provide to help students reach proficiency?
- Given the errors or misconceptions we see, what strategies will we use? How will these interventions be delivered? Who will deliver them?
- What evidence will we gather throughout the interventions to monitor student learning?
- How might we provide reinforcement or extend student learning for those who demonstrate proficiency (for example, what may we implement within the class or during Tier 2 support)?
- How will we provide students feedback on a timely basis? How are they expected to engage with this feedback?

**Sample Organizer**

Students Needing Intervention (They may be subdivided into more than one group.)	Support Plan
Students Needing Reinforcement or Minimal Support	Support Plan
Students Needing Extension	Support Plan

**Question Four: What Have We Learned? (five minutes)**

- Are there any changes we would make to our assessments, pacing, or instructional strategies the next time we teach this unit?

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## Figure 7.7: Vertical and Singleton Team Protocol for Analyzing Assessment Results

**Preparation for the meeting:** Members should come prepared with their students' results organized by proficiency level; for example, they can put the results into categories such as advanced, met proficiency, and not yet met proficiency. There should be a document camera or other means by which students can see the information, including student work whenever possible.

*Note: This protocol is based on a sixty-minute collaboration with three members rotating. Times can be adjusted based on the number of members and the total amount of time available. During each rotation, one teacher will be the presenting teacher, and the others will take a consulting role.*

**For each rotation:**

1. **Set the Stage** (*no more than two minutes*)

The presenting teacher shows the assessment item (using a document camera or providing samples to each member) and describes the focus of the assessment (the standard and specific learning target being assessed).

*Note: Questions from the remaining team members are limited to getting information about how students completed the assessment.*

2. **Ask, "What?"** (*approximately three minutes*)

The presenting teacher discusses their observations of the results (such as the general success rate, strengths or surprises, and common errors and misconceptions) and asks members for other observations.

*Note: Examples should be shared by using the document camera or distributing representative student work to the teachers.*

3. **Ask, "So What?"** (*approximately two minutes*)

Members share what they noticed or learned by looking at the students' responses and the assessment items, pacing, and so on. They can ask questions about and discuss the strategies used to achieve the results. (What worked?)

4. **Ask, "Now What?"** (*approximately six to eight minutes*)

All teachers discuss potential strategies that they could use to reteach the skill or concept to struggling students or, if implied by the data, to re-engage the whole class in order to reinforce the skill or concept. The presenting teacher shares final thoughts about the strategies they will be using and any changes to the assessment item or curriculum that would be appropriate for next time.

Repeat the process for each presenting teacher.

5. **Ask, "What Have We Learned?"** (*last five minutes*)

The team can discuss common patterns observed across all the members' results. If they have a shared focus, the teachers can discuss implications for their practices or future actions as a team.

## Figure 8.1: Sample Unit Overview Sheet

<b>Learning Target</b>		Can you complete the work detailed in the bulleted doing tasks for this learning target? Prove it here.		
<b>Rate Your Current Level of Understanding</b>				
1	2	3	4	5
<b>Grades Earned on Assignments and Assessments</b>				
<b>Essential Vocabulary to Master</b>				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Source: Ferriter, W. M. (2020). The big book of tools for collaborative teams in a PLC at Work. Bloomington, IN: Solution Tree Press, p. 134.

## Figure 8.4: Student Goal-Setting Sheet

My Goals for This Unit		
Student Name:		
Essential Learning Target	Is Mastered	Needs More Work
1.	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>
Activities and Resources I Plan to Use		
• • •		
My Plan		

## Figure 8.5: Planning Sheet for Goal-Setting Opportunities

### Creating Opportunities for Students to Act on Assessment Results

Collaborative team: \_\_\_\_\_

**Directions:** Work with your team to develop a plan for how students can act on assessment results. Part 1 asks you to select and list ways that would fit into any unit. Part 2 asks you to select and list ways that are specific to the current unit. Part 3 requires the team to plan when students will have the time to engage in these responses.

#### 1. Generic Opportunities

- Work on a unit overview sheet
- Vocabulary games
- Videos on topics
- Extension activities
- 
- 

#### 2. Opportunities Specific to This Unit

Independent Activities for This Unit	Group Activities for This Unit	Teacher-Directed Activities for This Unit
<ul style="list-style-type: none"><li><input type="checkbox"/> Rewatch a video.</li><li><input type="checkbox"/> Redo missed problems.</li><li><input type="checkbox"/> Practice with the _____ activity.</li><li><input type="checkbox"/> Review vocabulary.</li><li><input type="checkbox"/> Redo a lab experiment that failed.</li><li><input type="checkbox"/> Review prior assessments.</li></ul>	<ul style="list-style-type: none"><li><input type="checkbox"/> Practice with a partner.</li><li><input type="checkbox"/> Solve problems together.</li><li><input type="checkbox"/> Work on a new lab experiment.</li><li><input type="checkbox"/> Do a re-engagement lesson.</li><li><input type="checkbox"/></li><li><input type="checkbox"/></li></ul>	<ul style="list-style-type: none"><li><input type="checkbox"/> Come up with a small-group response.</li><li><input type="checkbox"/> Do an “ask a question” activity.</li><li><input type="checkbox"/> Do a lesson designed for review.</li><li><input type="checkbox"/></li><li><input type="checkbox"/></li><li><input type="checkbox"/></li></ul>

#### 3. Ways of Finding the Time

- Response days
- Choice time
- Tier 2 time
- Center time
- Other: \_\_\_\_\_

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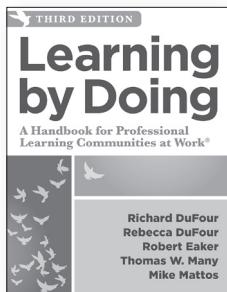
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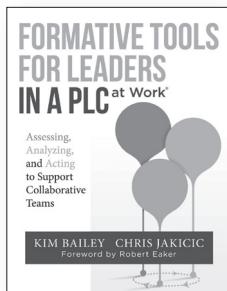


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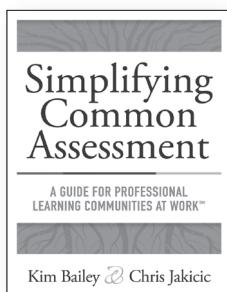


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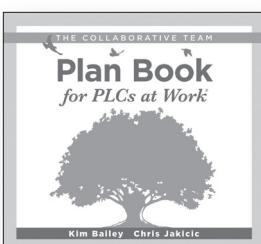


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