

SECTION III — RESEARCH AND SUPPORTING SCIENCE

Section III contains five chapters, each of which provides relevant research and supporting science related to one of the five major Organizing and Design Principles described in **Section I** and exemplified by aspects of the **Portraits** in **Section II**. Each chapter elaborates on key details and information that provide the background and justification for the related Principle and associated Recommendations provided in **Section I**. Finally, relevant resources and tools are offered that can support pursuit of the Recommendations in each Phase.

As noted in Section I, the Principles and associated Recommendations fall into three implementation Phases, as shown below.

Section III Organization

Phase I: Planning for and Designing an Early Literacy Assessment System



Section III-1 — Necessary Conditions and Structures: District characteristics that support coherent implementation of an early literacy assessment system

Principle #1: The ELAS must be designed to ALIGN AND INTEGRATE WITH ALL SCHOOL- AND DISTRICT-LEVEL SYSTEMS; this includes the systems of curriculum, instruction, and professional learning as well as the overall assessment system.

Section III-2 — Assessment System Architecture: Design features needed in the structure and operation of an early literacy assessment system

Principle #2: The ELAS must reflect ASSESSMENT SYSTEM DESIGN FEATURES that make it coherent, comprehensive, and continuous across time and contexts of use.

Phase II: Implementing an Early Literacy Assessment System



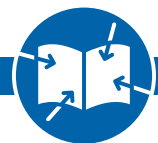
Section III-3 — Literacy Development and Learning: Features of an early literacy assessment system that reflect what we know

Principle #3: The ELAS must reflect what we know from theory, research, and practice about LITERACY DEVELOPMENT.

Section III-4 — Purposes, Users, and Technical Adequacy of Assessments: Features of early literacy assessment that reflect what we know

Principle #4: The ELAS must reflect what we know about the PURPOSES, USERS, AND TECHNICAL ADEQUACY OF EARLY LITERACY ASSESSMENT.

Phase III: Supporting and Monitoring an Early Literacy Assessment System



Section III-5 — Professional Learning Programs: Features that support stakeholder groups in implementing and using an ELAS

Principle #5: The ELAS must be supported and monitored by a sustained program of collaborative, inquiry-based PROFESSIONAL LEARNING and FEEDBACK.

“District and school settings are complex ecologies that call for necessary conditions and structures that can support coherence among curriculum, instruction, and assessment systems.”

Section III-1

NECESSARY CONDITIONS AND STRUCTURES: District characteristics that support coherent implementation of an early literacy assessment system

*This chapter describes the state- and district-level features that need to be in place in order to support an early literacy assessment system (ELAS) that fits within a coherent system of curriculum, instruction, assessment, and professional learning in support of early literacy development. The content provides some relevant explanation and backing for **Principle #1** and associated **Phase I Planning and Design Recommendations**.*

Phase I RECOMMENDATIONS (Principle #1)

Principle #1: The ELAS must be designed to ALIGN AND INTEGRATE WITH ALL SCHOOL- AND DISTRICT-LEVEL SYSTEMS; this includes the systems of curriculum, instruction, and professional learning as well as the overall assessment system.

1.1: DISTRICT LEADERS should form an ELAS Leadership Team charged with guiding the Planning and Design, Implementation, and Supporting and Monitoring Phases of the ELAS.

The **ELAS Leadership Team** should:

1.2: Establish compatibility and coordination of the ELAS with other district- and state-level systems of curriculum, instruction, assessment, professional learning, and accountability.

1.3: Plan thoughtful strategies for engaging with families and the community as key participants in the ELAS process, both as contributors to and recipients of assessment data.



Introduction

District and school settings are complex ecologies that call for necessary conditions and structures that can support coherence among curriculum, instruction, and assessment systems. Establishing such coherence at the “local” level of classrooms within a school is critical. This requires that a district have in place policies, procedures, and practices that enable the acquisition and use of an appropriate set of resources together with professional development programs that enable what is supposed to happen at the school and classroom level.

This section will begin to consider traits of high-performing school districts, in general, and then describe the specific implications and recommendations for school-level systems and the necessary conditions and structures that support coherent curriculum, instruction, and assessment systems.

Coherence is crucial

We can define coherence as a process that involves schools and district central offices working together to craft or continually negotiate the fit between external demands and schools' own goals and strategies (Honig & Hatch, 2004). Crafting coherence involves schools setting school-wide goals and strategies that have particular features, using those goals and strategies to decide whether to bridge themselves to or buffer themselves from external demands. Coherence also depends upon district central offices supporting these school-level processes.

Pellegrino et al., (2001), in an effort to prompt new thinking about instruction, curriculum, and assessment design, situates this idea about coherence within a balanced assessment system where different assessments serve different purposes and different users. The authors explain that this balanced design can ensure features of coherence, comprehensiveness, and continuity. A system of assessment can provide a variety of evidence to support educational decision making and thus is considered to be comprehensive. The evidence and data across a system would connect back to student learning and growth over time, providing coherence and continuity. To build an ELAS without noting the above conditions and considerations will lead to critical missteps in future efforts.

Start with leadership and a theory of action

The creation and maintenance of an early literacy assessment system (ELAS), a part of a broader pre-K through secondary assessment system, will be more effective if the charge is taken up by the district's administrators and policymakers. Districts *"are uniquely positioned to ensure equity and to increase the capacity of all schools—not just some"* (Childress, Etter, Platas, Wheeler, & Campbell, 2007, p. 1). Looking at districts as the unit of analysis helps us frame the organizational conditions that need to be in place to foster a coherent, comprehensive, and continuous set of processes. We acknowledge that as organizations grow in size, they also grow in complexity.

A system of assessment must align with and be integrated with other systems that operate at school and district levels including curriculum, instruction, professional development, and accountability. As a result, an ELAS must be monitored by a district or school leadership team to ensure that it is aligned horizontally within grade levels and vertically across grade levels throughout a district. The leadership team also ensures that the ELAS provides data to inform instructional and curricular decisions.

One function of the ELAS Leadership Team is to articulate the district's ELAS theory of action. Developing and adopting a theory of action for the structure and functioning of the proposed ELAS can be a powerful practice. A theory of action consists of five components:

1. Problem identification
2. The goals to be achieved
3. An understanding of root cause
4. An understanding of the change process
5. An understanding of the organizational context (Mintrop, 2016).

Theories of action are a worthy vehicle for generating, testing, and confirming actionable knowledge. Additional information about the importance of a theory of action and the development of a logic model to clarify that theory and design a system of assessment is provided in Section III-2.

It is critical to have a process in place that uses data to inform decisions by the stakeholders. Creating structures of data collection and analysis at regular intervals throughout the year to adjust literacy instruction and intervention across the school and district is highly recommended. Teams can commit to and use a problem-solving approach with a set of questions to drive data dialogues.

Characteristics of high-performing districts and schools

Researchers Leithwood and Azah (2016) identify common characteristics of high-performing school districts, most of which support our Phase I Recommendations and the suggestions described in this section. In the districts they studied that had a positive impact on student outcomes, there was a commitment to the deliberate and consistent use of multiple sources of evidence to inform decisions, including decisions to maintain a coherent instructional program. Leadership was shared across the organization and not defined by title or role. Professional learning was driven by an authentic, job-embedded, relevant approach. Additionally, these districts had productive relationships with families. This research suggests that it is the district that guides individual schools in creating systems conducive to an effective ELAS.

Schools reflect their district and function as formal organizations themselves. The research of Bryk and colleagues (2010) unpacks the school improvement efforts within the Chicago Public Schools and posits that district or school leadership is the driver for change. More specifically, it is the principal who is the catalyst for school-level improvement efforts and initiatives, but the principal also nurtures the leadership of others to sustain a coherent program of school-wide development. These efforts include encouraging new relationships with parents and families, enhancing professional capacities of staff, and cultivating supports concerning curriculum, instruction, and assessment. It is coherence in programming and effort that is key to consider.

Literacy Essentials provide guidance

Michigan educators are fortunate to have the [Essential School-Wide and Center-Wide Practices in Literacy](#) (MAISA/GELN/ELTF, 2016) to guide implications and recommendations for the field. The Essentials are grounded in research and informed by practitioners from across Michigan. Concepts described in the Essentials are cited below, drawn from a select subset of the School-Wide and Center-Wide Practices relevant to Principle #1. Although all ten School-Wide and Center-Wide Practices should occur in schools and be supported by districts, we know they will have greater impact when the effort is distributed across a group. We therefore suggest beginning the ELAS planning and development with Recommendation 1.1 of this Guide—the establishment of an ELAS Leadership Team—and focusing specifically on the *Essential School-Wide Center-Wide Practices* (MAISA/GELN/ELTF, 2016) that influence assessment. Because this is systems-level work throughout an organization, we acknowledge the extended amount of time it will take to implement the Recommendations and suggested practices.

“The leadership team is composed of instructional leaders committed to continuous improvements in literacy and ongoing attention to data.”

School-Wide and Center-Wide Practice in Literacy 1

This Practice in Literacy calls for the implementation of evidence-based, high-quality literacy curriculum, instruction, and assessment aligned across the learning environment (Slavin, Cheung, Holmes, Madden, & Chamberlain, 2013). Additionally, the ELAS Leadership Team must maintain a comprehensive system for assessing children’s strengths and needs and using that information to inform children’s education (Taylor, Pearson, Clark, & Walpole, 2000). This not only includes a set of assessment tools and practices, but also includes processes to gather and analyze the data and evidence (see Tools/Resources for Phase II). The **Portraits** in Section II of this Guide illustrate a system in which assessments are aligned with each other at a conceptual level in terms of the focus of each assessment and the ways in which information derived from assessments must align with curriculum and instruction if it is to support the development of literacy.

The **Portraits** reference a series of meetings, or “data days,” that prompt teachers to review data binders to inform decisions about instruction and intervention. The use of the data binders and the scheduled meetings are coordinated by the leadership team and are practices that occur throughout the school and district. Additionally, each school leadership team reviews the previous year’s data using the transition forms mentioned and plans instructional supports accordingly for the upcoming year.

Additionally, a school district must use evidence from the ELAS to develop the professional learning (PL) plan to meet the learning needs of children and instructional needs of teachers. Creating a district and school PL plan that is cohesive and based on evidence of need as well as research of effective literacy instruction will support the ongoing growth of teachers’ abilities to implement an ELAS effectively.

“Ongoing professional learning opportunities reflect research on adult learning and effective literacy instruction.”

School-Wide and Center-Wide Practice in Literacy 4

This Practice in Literacy states that ongoing professional learning (PL) opportunities should reflect research in adult learning and effective literacy instruction. Professional learning should be data-informed to meet the needs and best interests of teaching staff and their students (Hayes & Robnolt, 2006) as well as driven by a belief that teacher expertise is a strong predictor of child success (Podhajski, Mather, Nathan, & Sammons, 2009). Successful professional learning requires districts to invest in the development of expertise of all staff through collaborative learning designs such as study groups, collaborative inquiry, and problem solving (Cunningham, Etter, Platas, Wheeler, & Campbell, 2014). The professional learning should be focused on research-based instructional practices that are developmentally, culturally, and age-appropriate and support children’s literacy development. Using resources such as the [Essential Instructional Practices in Early Literacy: Prekindergarten](#) and [Essential Instructional Practices In Literacy: Grades K to 3](#) (MAISA/GELN/ELTF, 2016) will deepen teachers’ understanding of knowledge and skills to be learned (Lane, Prokop, Johnson, Podhajski, & Nathan, 2013). Section III-5 expounds upon this recommendation further.

Professional learning for the teachers and staff is foundational in the **Portraits**. The district has established common collaborative planning time where some of the time is spent using a data dialogue protocol. Teachers and staff use evidence of students’ strengths and needs noted in the data binders to inform their planning of whole-group, small-group, and individual lessons.

School-Wide and Center-Wide Practice in Literacy 5

This Practice in Literacy indicates that a district must develop a system of literacy support that includes, but also extends beyond, the instruction provided in the classroom. This system should include an equitable distribution of resources using evidence from an ELAS. Therefore, at the district and school level, there needs to be a process for determining the allocation of literacy support in addition to high-quality classroom instruction with multiple layers of support available to children who are not reading and/or writing at a proficient level. The instruction and additional supports are layered across learning environments, including the home; they are coherent and consistent with instruction received elsewhere in the school day and occur in addition to, not instead of, regular literacy instruction (Torgesen et al., 2001). This additional instruction is also differentiated to the individual child's specific profile of literacy strengths and needs (Gersten et al., 2008).

To make data-informed decisions, teachers are supported in using and reflecting on analyses of multiple, systematic internal assessments (e.g., universal screening, diagnostic, progress monitoring tools), formative assessment information collected and acted on during instruction, and observation as appropriate on an on-going basis. This practice will help to identify individual child needs early and accurately; tailor whole-group, small-group, and one-on-one instruction; and measure progress regularly (Taylor, Pearson, Clark, & Walpole, 1999). An example of this is providing intensive, systematic instruction on foundational reading skills in small groups to students who score below the benchmark score on word reading.

The **Portraits** in this Guide illustrate numerous examples of a system of support for students. During meetings to explore the data binders, students' strengths and areas of concern are discussed. Needs-based reading groups are determined, and district guidelines for Tier 2 referral are followed. Extensions for learning are represented as well. When needed, teachers gather more systematic information to add to their observations.

School-Wide and Center-Wide Practice in Literacy 8

This Practice in Literacy encourages schools and districts to see families as valuable partners who can contribute a wealth of knowledge about individual students' assets as well as needs. These funds of knowledge will help teachers tailor instruction to capitalize on the interests and prior knowledge of students. A consistent family engagement strategy pays specific attention to literacy development. To inform instruction, school and district staff should engage with families to prioritize *learning about them and their language and literacy practices, and draw from families' daily routines to build on culturally developed knowledge and skills accumulated in the home (e.g., inviting families to share texts they read and write as part of their lives at home or at work)* (Moll, Amanti, Neff, & Gonzalez, 1992).

Learning communities comprising parents and teachers could provide regular opportunities for families to build a network of social relationships to support language and literacy development. One example would be connecting families with community organizations that provide access to books or other educational

"There is a system for determining the allocation of literacy support in addition to high-quality classroom instruction with multiple layers of support available to children who are not reading and/or writing at a proficient level."

"A consistent family engagement strategy includes specific attention to literacy development."

supports (Ren & Hu, 2013). Teachers and specialists can work collaboratively to plan various levels of instructional supports, assess the efficacy of those supports, and adjust accordingly and foster familial and community participation in the education of children and the work of the learning environment (Warren, 2005).

Engagement with families plays a significant role in the early literacy assessment system illustrated in the **Portraits**. From the very beginning of the students' educational journey, the teachers are drawing information from their intentional interactions with families and archiving what they gather in the data binders. Coordinated picnics, home visits, phone calls, and regular family-teacher conferences, provide teachers opportunities to understand what the children know, enjoy, and can do. There is a deliberate focus on areas of interest, family activities, and children's progress.



Tools/Resources for PHASE I, Principle #1

Assisting Students Struggling with Reading: Response to Intervention (RtI) and Multi-Tier Intervention in the Primary Grades (What Works Clearinghouse, 2009)

This guide offers five specific recommendations to help educators identify struggling readers and implement evidence-based strategies to promote their reading achievement.

Available at <https://ies.ed.gov/ncee/wwc/PracticeGuide/3>

Design principles for new systems of assessment (Phi Delta Kappan, 2017)

The Every Student Succeeds Act (ESSA) grants states new flexibility to create more balanced assessment systems with a greater role for formative assessment. Drawing on lessons learned over three decades of research and reform, the authors of this article argue for state and local leaders to take the lead in designing new assessments guided by two core principles: 1) make assessments coherent with rich curriculum and instruction; 2) ground this integration of curriculum, instruction, and embedded assessments in equity-focused research on learning.

Available at <https://journals.sagepub.com/doi/abs/10.1177/0031721717696478>
(minimal fee required for non-PDK members).

District Assessment System Design (DASD) Toolkit (Center for Assessment, 2018)

This toolkit is useful for districts to determine users of assessment, the different ways that assessment information can be used, and which assessment approaches are most valuable in meeting the assessment information needs of different assessment users in the district.

Available at www.nciea.org/featured-resources.

Dual-Capacity Framework (DualCapacity.org)

Based on existing research and best practices, the Dual Capacity-Building Framework for Family-School Partnerships (Version 2) is designed to support the development of family engagement strategies, policies, and programs. The Framework should be seen as a compass, laying out the goals and conditions necessary to chart a path toward effective family engagement efforts that are linked to student achievement and school improvement.

Available at www.dualcapacity.org.

Michigan's Student Individual Reading Instruction Plan (IRIP) Companion Document (MEMSPA, 2017)

This 22-page document for school leaders and leadership teams is to support the use of Michigan's IRIP form. It provides general guidance, research, and best practices to school districts. The document is student focused, and its authors aim to support teachers' and teams' abilities to be data-informed as they undertake the process of creating, completing, monitoring, and supporting the implementation of an IRIP.

Available from the Michigan Elementary and Middle School Principals Association (memspa.org) or at the ELAS Tools and Resources link below.

A listing of all Tools and Resources mentioned in this Guide to help you develop an early literacy assessment system (ELAS) is available online at **www.MichiganAssessmentConsortium.org/ELAS**.



Notes

SECTION III-2

ASSESSMENT SYSTEM ARCHITECTURE: Design features needed in the structure and operation of an early literacy assessment system

*This chapter considers what it means to have a balanced, well-functioning assessment system in terms of (a) fundamentals of literacy assessment, (b) system architecture and design principles, and (c) steps that need to be taken to actually plan for and design such a system. The content provides some of the relevant explanation and backing for **Principle #2** and associated **Phase I Planning and Design Recommendations**.*

Phase I RECOMMENDATIONS (Principle # 2)

Principle #2: The ELAS must reflect ASSESSMENT SYSTEM DESIGN FEATURES that make it coherent, comprehensive, and continuous across time and contexts of use.

The **ELAS LEADERSHIP TEAM** should:

- 1.4:** Develop and adopt a logic model and theory of action for the structure, functioning, and evaluation of the proposed ELAS.
- 1.5:** Identify the educational decisions to be made, assessment information needed to support those decisions, and the stakeholder(s) who will be making the decision(s).
- 1.6:** Construct a framework for the ELAS that includes clearly articulated relationships among the assessment tools and practices relative to a model of competency development in reading, writing, speaking, or listening.
- 1.7:** Use the framework to conduct an audit of all existing district- and school-level assessment tools and practices currently in use to determine whether they meet criteria for inclusion and should remain a part of the system.

Introduction

The seminal publication *Knowing What Students Know: The Science and Design of Educational Assessment* (Pellegrino, Chudowsky & Glaser, 2001) crystalized the call for balanced systems of assessment:

Assessments at all levels—from classroom to state—will work together in a system that is comprehensive, coherent, and continuous. In such a system, assessments would provide a variety of evidence to support educational decision making. Assessment at all levels would be linked back to the same underlying model of student learning and would provide indications of student growth over time (Pellegrino et al., 2001, p. 9).

Many authors since have helped advance this conceptualization of assessment systems, as well as an understanding of what constitutes a well-functioning system (e.g., Chattergoon & Marion, 2016; Conley, 2014; Council of Chief State School



Officers [CCSSO], 2015; Darling-Hammond et al., 2013; Pellegrino et al., 2014). While much has been learned about designing and implementing high-quality assessment systems over the past 20 years, there are few examples of well-functioning systems, particularly systems incorporating state summative tests and assessments at other levels of the system (e.g., district, classroom). Despite recent efforts to articulate principles of assessment systems (Deeper Learning 4 All, 2018), creating a balanced assessment system remains challenging and finding high-quality examples in practice is very rare (see e.g., Conley, 2018).

In planning for and designing an early literacy assessment systems (ELAS) for students, it will be important for a district's ELAS Leadership Team to leverage what has been learned about three things:

1. the nature of assessment
2. the assessment of literacy
3. the principles of assessment system architecture

This body of knowledge should inform an agenda for thoughtful design of an ELAS that can enhance equitable learning and life opportunities for all students. In this section we first review key conceptual issues regarding the nature of assessment, since these issues are foundational for understanding the broader principles for system design and implementation. We conclude the chapter with a discussion of the need for development of a theory of action for the assessment system and the use of a logic model to help uncover that theory of action and guide the process of system design, implementation, monitoring, and evaluation.

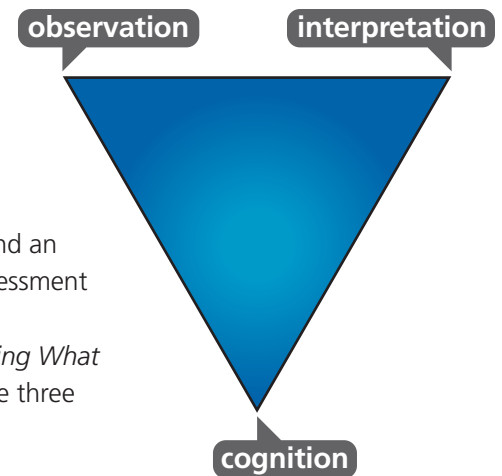
Assessment as a process of evidentiary reasoning

We assess students to make judgments about what they know and can do, but assessment does not offer a direct pipeline into a student's mind. Assessing educational outcomes for children is not as straightforward as measuring height or weight; the attributes to be measured are mental representations and processes that are not outwardly visible. Thus, an assessment is a tool designed to observe students' behavior and produce data that can be used to draw reasonable inferences about what students know and can do. Deciding what to assess and how to do so is not as simple as it might appear.

The process of collecting evidence to support inferences about what students know represents a chain of reasoning from evidence about student development and learning that characterizes all assessment, from classroom quizzes and standardized achievement tests to the conversation a student has with their teacher as they read a story or work through the meaning of a text.

The first question in the assessment reasoning process is "evidence about what?" Data become evidence in an analytic situation only when one has established their relevance to some question or concern. Data do not provide their own meaning; their value as evidence can arise only through some interpretational framework. In the present context, educational assessment provides data such as spoken or written work, marks on answer sheets, or students' explanations of their thinking. These data become evidence only with respect to understandings about how students acquire knowledge and skill.

In the *Knowing What Students Know* report, the process of reasoning from evidence was portrayed as a triad of three interconnected elements, forming an “assessment triangle.” The vertices of the assessment triangle (see **Figure III.2.1**) represent the three key elements underlying any assessment: a model of student **cognition** and learning in the domain of the assessment; a set of assumptions and principles about the kinds of **observations** that will provide valid evidence of students’ competencies; and an **interpretation** process for making sense of the evidence in light of the assessment purpose. The three are represented as vertices of a triangle because each is connected to and dependent on the other two. A major tenet of the *Knowing What Students Know* report is that for an assessment to be effective and valid, the three elements must be in synchrony.



Cognition

The *cognition* corner of the triangle refers to theory, data, and practice about how students represent knowledge and develop competence in a domain (e.g., reading, writing, speaking, or listening). In any particular assessment application, a theory of development and learning in the domain is needed to identify the set of knowledge and skills that is important to assess for the intended context of use, whether that be to characterize the competencies students have acquired at some point in time to make a summative judgment, or to make formative judgments to guide subsequent instruction so as to maximize learning. A central premise is that the cognitive theory should represent the most scientifically credible understanding of typical ways in which learners represent knowledge and develop expertise in the domain of interest.

Observation

Every assessment is also based on a set of assumptions and principles about the kinds of tasks or situations that will prompt students to say, do, or create something that demonstrates important knowledge and skills. The tasks to which students are asked to respond on an assessment are not arbitrary. They must be carefully designed to provide evidence that is linked to the cognitive model of learning and to support the kinds of inferences and decisions that will be made on the basis of the assessment results.

The *observation* vertex of the assessment triangle represents a description or set of specifications for assessment tasks that will elicit illuminating responses from students. In assessment, one has the opportunity to structure some small corner of the world to make observations. The assessment designer can use this capability to maximize the value of the data collected, as seen through the lens of the underlying assumptions about how students learn in the domain.

Interpretation

Every assessment is also based on certain assumptions and models for interpreting the evidence collected from observations. The *interpretation* vertex of the triangle encompasses all the methods and tools used to reason from the observations. It expresses how the observations derived from a set of assessment tasks constitute evidence about the knowledge and skills being assessed.

● **FIGURE III.2.1**
The Assessment Triangle

Source: *Knowing What Students Know* (Pellegrino et al., 2001)

In the context of some assessment, the interpretation method is based on scores that are indicative of varying levels of performance. In the context of other assessment, the interpretation can be based on an intuitive or qualitative model rather than a quantitative one. Even informally, teachers often make coordinated judgments about what aspects of students' understanding and learning are relevant, how a student has performed on one or more tasks, and what the performances mean about the student's knowledge and understanding.

A crucial point is that each of the three elements of the assessment triangle not only must make sense on its own, but also must connect to each of the other two elements in a meaningful way to lead to an effective assessment and sound inferences. Thus, to have a valid and useful assessment, all three vertices of the triangle must work together in synchrony. Central to this entire process are theories and data on how students learn and what students know as they develop competence for important aspects of a domain such as literacy.

Starting with a model of development and learning is critical, since the model suggests the most important aspects of student achievement about which one would want to draw inferences, and provides clues about the types of assessment tasks that will elicit evidence to support those inferences for whatever goal one has in mind with respect to using that information.

A system calls for multiple assessments

Any valid and useful literacy assessment will involve a process of reasoning from evidence about some key aspect of the development of reading, writing, speaking or listening. Thus, a system of literacy assessment necessarily involves multiple such assessment tools and practices. These multiple assessment tools and practices would focus on key elements of the development of early literacy and would be used by various individuals to make judgments about student progress. Sections III-3 and III-4 provide background information and guidance with respect to four key aspects of the individual and collective set of assessment tools and practices that should be chosen to make up an early literacy assessment system:

1. how they relate to knowledge from theory, research and practice about the development of components of literacy,
2. the interpretive purposes they would be intended to fulfill in promoting literacy development,
3. the types of assessment that could be used for specific components of literacy, and
4. desirable properties of such assessment in terms of validity, reliability and fairness.

All of the information provided in Sections III-3 and III-4 is predicated on the core assumption that (a) assessment of early literacy is a process of reasoning from evidence connected to theoretically and empirically sound conceptions of literacy development and (b) the assessment tools are well designed and provide high quality information for the intended interpretive use. These assumptions lie at the core of an early literacy assessment system.

In what follows, we focus on the broader criteria that need to be used in the process of selection and assembly of assessment tools and practices for them to function together, i.e., the ways they need to relate to each other to serve as a balanced “assessment system.” The **Portraits** in **Section II** illustrate the multiple aspects of the development of literacy that educators are interested in assessing. They provide examples of how assessment practices and tools might reflect a rich, interconnected model of literacy development and how they can fit together across time and use context, in ways that are consistent with three important system design properties: coherence, comprehensiveness, and continuity.

Criteria for balanced assessment systems

As noted at the beginning of this Guide, *“a collection of assessments does not entail a system any more than a pile of bricks constitutes a house”* (Coladarci, 2002). Assessment systems are balanced when the various assessment tools and practices in the system:

- a. are coherently linked through a clear specification of the learning targets,
- b. comprehensively provide multiple sources of evidence to support educational decision making, and
- c. continuously document student progress over time (Pellegrino et al., 2001).

These properties—coherence, comprehensiveness, and continuity—create a powerful image of a high-quality system of assessment, rooted in a common model of development and learning.

Coherence

By *coherence*, we mean that the models of student learning underlying the various assessments within the system should be compatible. While a large-scale state assessment might be based on a model of learning that is coarser than that underlying the assessments used in classrooms, the conceptual base for the state assessment should be a broader version of one that makes sense at the finer-grained level. In this way, the external assessment results will be consistent with the more detailed understanding of learning underlying classroom instruction and assessment.

As one moves up and down the levels of a system, from the classroom through the school, district, and state, assessments along this vertical dimension should align. As long as the underlying models of learning and development are consistent, the assessments will complement each other rather than present conflicting goals for learning.

In addition to vertical coherence among assessments that range from the classroom to the district to the state level, we should also be concerned about coherence among classroom assessments serving various purposes (e.g., grading, formative feedback). Horizontal coherence is the alignment among curriculum, instruction, and assessment with the goal of helping students develop proficiency in a content domain (Pellegrino et al., 2001).

Comprehensiveness

By *comprehensiveness*, we mean that a range of assessment approaches should be used to provide a variety of evidence to support educational decision making. In an area such as early literacy development, multiple assessments are needed to cover the depth and breadth of the many facets of literacy development that we need to evaluate. No single assessment result can be considered a definitive indicator of a student's knowledge and skill. Information from multiple assessments enhances the validity and fairness of the inferences drawn by giving students various ways and opportunities to demonstrate their competence. Multiple measures can also be used to provide evidence that improvements in test scores represent real gains in learning, as opposed to score inflation due to teaching narrowly to one particular instrument (e.g., Koretz, 2009).

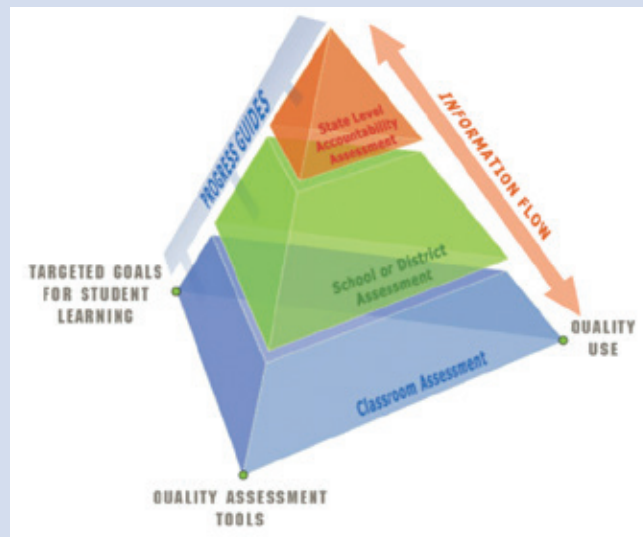
Continuity

An ideal assessment system should be designed to be *continuous*. That is, assessments should measure student progress over time, akin more to a videotape record rather than to the snapshots provided by most current tests. To provide such pictures of progress, multiple sets of observations over time must be linked conceptually so that change can be observed and interpreted. Models of student progress in learning should underlie the assessment system, and assessments should be designed to provide information that maps back to the progression.

In **Section I** we provided a graphical illustration of how a multi-level assessment system might look and mentioned some of the factors that would serve to achieve balance and support these three principles. **Figure III.2.2** refers back to that illustration and highlights four critical features that make it a balanced and integrated system relative to literacy. We also note where in this Guide we elaborate on what needs to be considered for each of the four features.

An Integrated System

- Unified by common learning goals derived from learning theory, research, & content standards (Chapter III-3)
- Synchronized by unifying progress variables that map out expected trajectories of learning and development (Chapter III-3)
- Coordinated within and across system levels & purposes (Chapter III-4)
- Use of quality assessment tools aligned to specific literacy components and levels of proficiency (Chapter III-4)



● **FIGURE III.2.2**

Example of a Multi-level assessment system that illustrates coherence, comprehensiveness, and continuity.

Systems within systems

The three criteria discussed above can be used in the conceptualization, design, and/or evaluation of an ELAS. But systems do not stand alone; it is important to recognize that we also need to take into consideration the reality that systems typically reside within other systems. As conceptualized in *Systems for State Science Assessment* (Wilson & Bertenthal, 2006):

- systems are organized around a specific goal;
- systems are composed of subsystems, or parts, that each serve their own purposes but also interact with other parts in ways that help the larger system to function as intended;
- the subsystems that comprise the whole must work well both independently and together for the system to function as intended;
- the parts working together can perform functions that individual components cannot perform on their own; and
- a missing or poorly operating part may cause a system to function poorly, or not at all.

This idea of systems within systems is noted explicitly in Principle #1 and discussed in Section III-1. The ELAS must be in balance with other school, district, and state level systems related to curriculum, instruction, assessment, professional learning, and accountability. And within the assessment system there will be sub-systems that operate at different levels and serve different purposes.

Examples would be assessments designed for different purposes (see Section III-4) that operate at the classroom and/or district levels, as well as across levels of the Pre-K through 12 system.

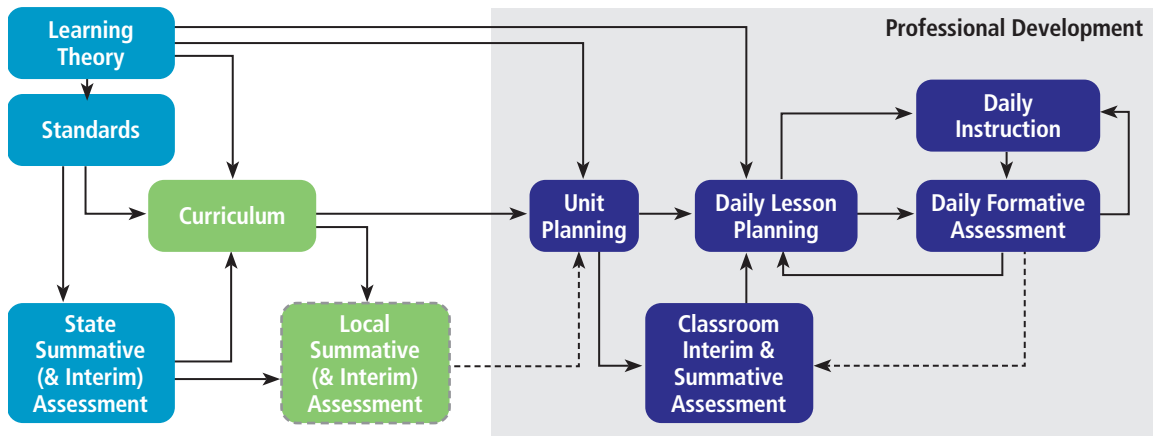
Because there can be considerable complexity associated with planning for and designing the assessment system, given the purposes it is intended to serve and the levels at which it is intended to operate, developing an ELAS theory of action and explicating a logic model for the system can be beneficial and essential in going about this process. These ideas are considered and developed below.

“The ELAS must be in balance with other school, district, and state level systems related to curriculum, instruction, assessment, professional learning, and accountability. And within the assessment system there will be sub-systems that operate at different levels and serve different purposes.”

Developing a theory of action and logic model for the ELAS

A common problem across and within state, district, and classroom assessment levels is that the assessment components are not conceptually coherent—they don’t align to the same conception of literacy. This can often produce conflicting results and inferences about students. Consequently, the use of these assessments doesn’t lead to the desired outcome of educational improvement. It is therefore essential to make explicit one’s assumptions about literacy and a “theory of action” related to the use of information derived from the system of assessments.

Figure III.2.3 shows a simplified version of the components of a standards, curriculum, instruction, and assessment system at state, district, school and classroom levels.



● **FIGURE III.2.3**

A “Simple” Theory of Action Relating Teaching, Learning, and Assessment

Notice that everything flows from theory and research on literacy development and learning. Much more would need to be articulated as part of the theory of action about how each of the elements shown above relate to each other and what each is intended to accomplish relative to the goal of supporting the development of literacy. In addition, what is included within each of the boxes and how they function would be part of the elaboration of the system model and the theory of action for how the system is supposed to work.

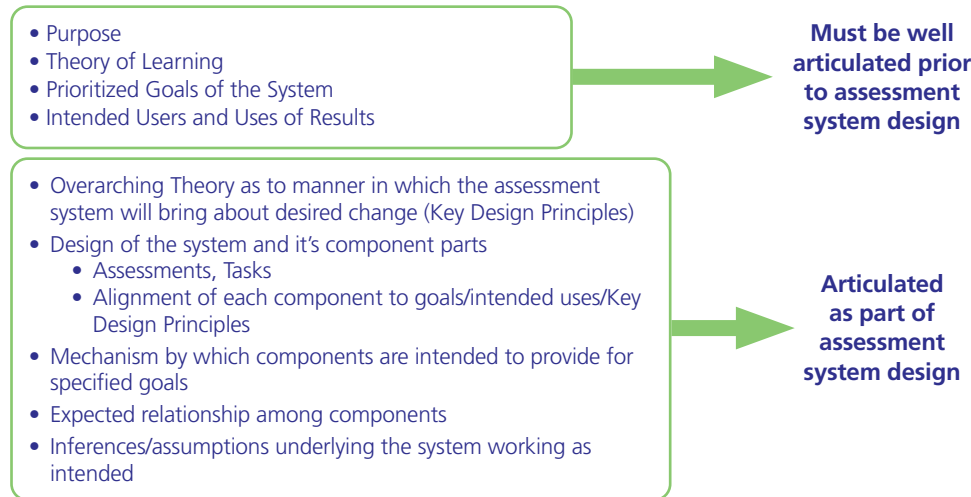
Notice also that much of the action in this representation is focused close to the classroom (area shaded gray), where coordination is needed among curriculum, instruction, and various types of assessment. The Figure III.2.3 also highlights a point made earlier in Section III-1 that effective system operation hinges on teacher expertise, including ongoing opportunities for professional learning.

A theory of action for an ELAS can be conceptualized as an empirically and logically stated argument. It can express a set of underlying assumptions about what something is supposed to do, how it is supposed to function and what is supposed to result. As such, it can serve as a set of testable hypotheses. When clearly articulated, the theory of action outlines how and why a given assessment or system, as designed, will support the achievement of specified goals. It requires specification of each component of the assessment system, the connection(s) between components, and the manner in which they jointly fulfill the requirements of the system.

To help develop and articulate a theory of action for an ELAS, it is recommended that the district’s ELAS Leadership Team lay out a “logic model” for the assessment system. A logic model forces one to specify the presumed theory of action. It helps to make explicit assumptions about how particular components are supposed to work, who is to be impacted, what the expected consequences should be, and WHY.

In a complex system, it is critical that the theory of action be articulated, especially with regard to how assessment information is to be used to improve outcomes over time—who will use what information and how. Competing theories of action can be made explicit in the system design phase—choices can be made based on the quality of the evidence and/or argument in favor of adopting one theory in lieu of alternatives.

Consistent with the above, **Recommendations – 1.4, 1.5, 1.6 and 1.7** indicate that the ELAS Leadership Team should lay out a logic model for system design, implementation, and evaluation of the ELAS. The logic model development process forces attention to: a) existing conditions, b) resources, c) inputs, d) outputs, and e) proximal and distal outcomes.



● **FIGURE III.2.4**
Pieces in Articulating the Theory of Action and Logic Model for an ELAS

There is a focus not only on the elements of the system but most especially on the assumed logical and causal relationships among them. The logic model enables monitoring the building of the ELAS and its enactment. It also enables strategies for evaluation of the ELAS along the way and for adjustment and correction as needed. **Figure III.2.4** provides a glimpse of what needs to be considered in this process.

Tools/Resources for PHASE I, Principle #2:

Tools Specific to Logic Models and Theory of Action

The development of a theory of action for the assessment system and a logic model for the system components and design is a challenging task that takes time. These selected resources can guide district ELAS Leadership Teams and others through this process.

Logic Model Development Guide (W.K. Kellogg Foundation, 2004)

The W.K. Kellogg Foundation Logic Model Development Guide focuses on the development and use of the program logic model. The logic model and its processes facilitate thinking, planning, and communications about program objectives and actual accomplishments. This guide provides an orientation to the underlying principles and language of the program logic model so it can be effectively used in program planning, implementation, evaluation, and dissemination of results.

Available at: <https://www.bttop.org/sites/default/files/public/W.K.%20Kellogg%20LogicModel.pdf>



Logic Models for Program Design, Implementation, and Evaluation: Workshop Toolkit (Institute for Education Sciences, 2015).

This Toolkit is designed to help practitioners learn the purpose of logic models, the different elements of a logic model, and the appropriate steps for developing and using a logic model for program development and evaluation. The toolkit includes an agenda, slide deck, participant workbook, and facilitator's manual. The materials have been designed for use by schools, districts, states, and other groups serving them.

Available at <https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=401>

Theories of Action Aren't Enough: An argument for Logic Models

This article by Juan D'Brot provides some helpful ways to think about and work with theories of action and logic models.

Available at <https://www.nciea.org/blog/assessment/theories-action-arent-enough-argument-logic-models>

Tools Specific to Assessment Audits or Inventories

The development of a theory of action for the assessment system and a logic model for the system components and design is a challenging task that takes time. These selected resources can guide district ELAS Leadership Teams and others through this process.

District Assessment System Design (DASD) Toolkit (National Center for the Improvement of Educational Assessment, 2018)

This toolkit is useful for districts to determine users of assessment, the different ways that assessment information can be used, and which assessment approaches are most valuable in meeting the assessment information needs of different assessment users in the district.

Available at: <https://www.nciea.org/featured-resources>

Student Assessment Inventory for School Districts (Achieve, 2014)

This toolkit guides district leaders in taking stock of how many assessments are administered throughout a school year and for what purposes they give assessments. Designed from a student perspective, the audit tool can be used by leaders to make decisions about what amount of testing is appropriate and to be more transparent with parents about the testing in schools.

Available at www.achieve.org/assessmentinventory.

A listing of all Tools and Resources mentioned in this Guide to help you develop an early literacy assessment system (ELAS) is available online at **www.MichiganAssessmentConsortium.org/ELAS**.

SECTION III-3

LITERACY DEVELOPMENT AND LEARNING: Features of an early literacy assessment system that reflect what we know

*This chapter describes what we know about the learning and development of literacy and how this knowledge can be helpful in informing the selection of valid and useful tools and practices to be used to assess early literacy learning. It also provides information useful in creating a district early literacy assessment system (ELAS) that reflects what we know about the whole child. The content provides some of the relevant explanation and backing for **Principle #3** and associated **Phase II Implementation Recommendations**—in particular Recommendations 2.2 and 2.3.*

Phase II RECOMMENDATIONS (Principle #3)

Principle #3—The ELAS must reflect what we know from theory, research, and practice about the LITERACY DEVELOPMENT.

2.1: The **ELAS LEADERSHIP TEAM** should use the logic model and theory of action (called for in Phase I) to guide the selection and implementation of assessment tools and resources for inclusion in the system.

The **ELAS LEADERSHIP TEAM**, in collaboration with **PRINCIPALS AND TEACHERS**, should:

2.2: Select individual assessment resources on the basis of evidence of their capacity to provide construct(s)-relevant and instructionally valuable information about a student's literacy development and growth in a given literacy domain(s) – reading, writing, speaking, or listening.

2.3: Select individual assessment resources on the basis of evidence that they are developmentally appropriate and respectful with regard to the cognitive, social, emotional, cultural, and performance demands they place on children.



Introduction

We begin with a characterization of literacy development to make the point that literacy is, in fact, *a/ways* in development as texts, tasks, and purposes for using literacy change. Consider the following examples:

- A two-year old turns each page of a well-worn children's book and repeats with each page, "Are you my mother?"
- A four-year old, displaying a mix of drawings, scribbles, and letters, asks that you "listen to my story."
- A ten-year old considers the evidence collected from an investigation of condensation and writes an explanation for the water that has collected on the outside of a glass.

- A fourteen-year old considers how two accounts of an historical event compare and contrast.
- A twenty-year-old wrestles with learning an obscure form of code for her start-up company.
- An elder reads the labels on two of his prescriptions and wonders whether they should be taken together.

Each of these represents a literacy event and illustrates the range of literacies in which we engage over the lifespan. Literate activity, such as recognizing street-signs, playing with rhyming sounds, and using a longer string of squiggles to represent a longer word, emerges long before conventional reading and writing, and there really is no end point in literacy development. Furthermore, new kinds of social communication, hypertext, and “the Internet of everything” all have profound implications for the forms of literacy that will support productive engagement in contemporary society. Our point is that what is “developmentally appropriate” in the way of literacy assessment is more complex than might appear at first blush.

“Literate activity, such as recognizing street-signs, playing with rhyming sounds, and using a longer string of squiggles to represent a longer word, emerges long before conventional reading and writing, and there really is no end point in literacy development.”

Michigan’s Action Plan for Literacy Excellence 2017-2020 defines literacy as “the ability to read, view, listen, write, speak, and visually represent to comprehend and to communicate meaning in various settings through oral, written, visual, and digital forms of expression.” (Michigan Department of Education [MDE], 2017, p. 8). The Educational Testing Service provides an expanded definition of literacy to include: “the deployment of a constellation of cognitive, language, and social reasoning skills, knowledge, strategies, and dispositions, directed towards achieving specific purposes” (Sabatini, Bruce, & Steinberg, 2013, p. 7). This definition, in hand with Michigan’s definition, is useful because it reflects contemporary standards movements (such as the *Common Core State Standards*, *Next Generation Science Standards*, and *National Council for the Social Studies Curriculum Standards*). Also, it embraces the broad range of processes and factors, such as prior knowledge, metacognition, self-regulation, reading strategies, student motivation, and student engagement that influence literacy learning and development. This is why **Recommendation 2.2** takes an expansive view of the learner.

Required features of an ELAS

Consistent with the focus of this Guide, we will focus on development and learning from pre-kindergarten through third grade. We propose features that ensure the ELAS:

- is developmentally sensitive.
- identifies whether students are receiving excellent early instruction.
- identifies students who may have risk factors so that these children receive effective literacy intervention programs as early as possible.
- yields information that is useful to guiding teacher decision making so that literacy instruction can be tailored to the various profiles of strengths, challenge, and interests that students present.
- is informed by the range of processes and factors that explain literacy achievement.

- takes into consideration the complexities of reading comprehension and reflects the dynamic and developmental nature of comprehension.
- provides information on students' interests so that educators can use this information in planning instruction, and takes students' interests into account when reporting assessment results.
- applies an asset orientation motivated by the question, "What knowledge and skill is the learner bringing to the table?"

ELAS FEATURE 1: A literacy assessment system should be research-based and developmentally sensitive.

It is perhaps obvious that the tasks and tools that we use to assess literacy for a kindergarten child should differ from those used to assess a third-grader. This feature emphasizes that we should be drawing on research regarding *how literacy develops* and *individual differences in literacy development*, as we decide what should be included in an ELAS.

For example, an assessment system appropriate for young children needs to provide the teacher with information regarding foundational skills of reading. These skills include phonological processing (e.g., blending syllables or phonemes to form a word), print awareness (e.g., knowing the difference between a word and a letter), and oral language. We know that children who are more adept with these foundational skills profit more from reading instruction; they learn to read sooner, and they are better readers than children with fewer of these skills (National Institute of Child Health and Human Development [NICHD], 2000; Snow, Burns, & Griffin, 1998).

Teachers armed with information about the emergence and development of these foundational skills can take them into consideration when planning instruction; for example, providing children who are still acquiring phonological processing skill with opportunities to acquire this skill, but not wasting the time of children who have already acquired this skill. The document titled ***Free or Very Low Cost Early Literacy Assessments with Diagnostic Value and Demonstrated Reliability and Validity*** (Duke, Lindsey, & Brown, n.d.) provides a helpful list of assessments that provide useful information regarding the skills requisite to literacy development (see Tools/Resources for Phase II).

Young children vary a great deal on these foundational skills (e.g., Justice & Ezell, 2001 regarding print awareness); the teacher who is aware of this variation can take it into consideration when planning instruction. The **Portraits** in this Guide illustrate the many ways that children's literacy knowledge and skill can vary even when they are the same age.

Research also tells us that the relationship between word reading skills and comprehension changes over time (Ahmed et al., 2016; Cain & Oakhill, 2012; Storch & Whitehurst, 2002). While word reading skill strongly predicts comprehension among young children, vocabulary knowledge and background knowledge are stronger predictors of comprehension as children get older and as they read more challenging texts. This means that it is important to assess comprehension and not assume that a child who reads words fluently is necessarily comprehending.

“Assessments should distinguish between constrained and unconstrained skills because of their scope and different developmental trajectories. Furthermore, it is important to guard against the assumption that the instruction of constrained skills should take priority over other skills; mastery of constrained skills does not ensure the development of unconstrained skills.”

We know that children perform differently when being assessed with narrative versus informational text; informational texts are typically harder for younger readers to read (McNamara, Graesser, & Louwerse, 2012). This could be a function of experience; it could be a function of how informational texts are written (e.g., how the ideas are organized and presented); or it could be because of vocabulary demands. This means that it is important to attend to how children understand both narrative *and* informational text.

An additional idea that is helpful to consider when thinking about literacy development is that some reading skills are “constrained” and some are “unconstrained” (Paris, 2005). Constrained skills are those that develop from non-existence to a high level of proficiency in early childhood. Examples of constrained skills include knowledge of the alphabetic principle (i.e., knowledge that written spellings systematically represent spoken words) and phonemic awareness (e.g., knowledge that spoken words can be conceived as a sequence of phonemes). Unconstrained skills include vocabulary and comprehension; they continue to develop through the lifespan.

What is the relevance of this distinction when thinking about developmentally sensitive assessment? Assessments should distinguish between constrained and unconstrained skills because of their scope and different developmental trajectories. Furthermore, it is important to guard against the assumption that the instruction of constrained skills should take priority over other skills; mastery of constrained skills does not ensure the development of unconstrained skills. Finally, it is important to be cautious about the use of proxies; for example, while print knowledge measures are indeed correlated with later reading achievement, the *moderator* may be parent education, parent-child interactions, or access to literacy resources. These are all factors that continue to be influential in a child’s reading development.

The **Portraits** in Section II reveal multiple ways in which educators engage in developmentally sensitive assessment; consider, for example, the teachers’ use of early childhood standards to guide their decision making about the features of literacy development to which they attend over time. Furthermore, we see evidence of the ways in which the foci of assessment change as the children matriculate through the grades and the expectations regarding the nature of—and purposes for using—text change over time. For example, in kindergarten, the teachers are systematically attending to alphabet knowledge, phonological awareness, and concepts of word. By the time the three students are in second grade, their teacher is attending to the students’ use of context clues to ascertain the meaning of unfamiliar words, morphological analysis, and vocabulary knowledge.

ELAS FEATURE 2: A literacy assessment system should identify whether students are receiving excellent early instruction.

This feature reminds us that—before concluding there is something wrong with the child—it is important to ascertain that the child has received appropriate learning opportunities.

Excellent classroom instruction has long been extolled as a major prevention strategy (Snow et al., 1998) and has been associated with such long-term benefits as less



grade retention, less likelihood of being referred for special education services, and higher graduation rates (Scanlon, Vellutino, Small, Fanuele, & Sweeney, 2005; Schweinhart, Berrueta-Clement, Barnett, Epstein, & Weikart, 1985). Specific to literacy achievement, there is a more complex story; longitudinal research that was conducted in high-poverty schools (Mehta, Foorman, Branum-Martin, & Taylor, 2005)—using multiple indicators of teacher quality, instruction, and student literacy achievement—suggests that the best predictor of literacy achievement takes into consideration the *combined* effects of teacher quality, instruction, *and* classroom composition (i.e., student language competence and prior achievement).

One way to think about this is that excellent literacy instruction is particularly important in classroom contexts in which there are significant numbers of children who enter the classroom with low language and literacy skills. Furthermore, the determination of what constitutes excellent literacy instruction involves multiple instructional components that interact with and support one another (Pressley et al., 2001, studied in grade 1). The document *Essential Instructional Practices in Early Literacy: Grades K-3* (MAISA/GELN/ELTF, 2016) and related online modules provide extensive information about what to look for to ascertain the quality of literacy instruction (see Tools/Resources for Phase II).

With respect to the **Portraits**, recall that the teachers maintain data binders documenting where each of their children are with respect to specific standards or components of standards. This practice is consistent with gathering information that ensures students are receiving excellent early instruction. Indeed, the teachers use this information not only to document growth on the part of their students, but also as grist for reflecting on how they will continue to improve their curriculum and instruction.

ELAS FEATURE 3: A literacy assessment system should be capable of identifying students who may have risk factors so that these children receive effective literacy intervention programs as early as possible.

This feature focuses on the predictive value of the assessments used in the system.

Children most at risk for reading difficulties in the primary grades are those who begin school with:

- fewer verbal skills (e.g., storytelling, vocabulary knowledge),
- less phonological awareness (e.g., noticing rhymes; clapping along with each syllable in a phrase; noticing that the pronunciation of words like, “bed,” “bark,” and “banana” all begin the same way),
- less letter knowledge (i.e., ability to name printed letters), and
- less familiarity with the basic purposes and mechanisms of reading (Snow, 2002).

Longitudinal correlational studies of the development of reading show that reading problems become increasingly hard to change over time; furthermore, individual differences in reading skills become remarkably stable by second grade (Schatschneider, Wagner, & Crawford, 2008). All of this suggests that a powerful ELAS will attend to these indicators of success and challenge and will be designed with the goal of determining who will profit from well-designed, tailored reading instruction in the foundational skills described above.

Evidence of this claim is provided by the research of Vellutino and his colleagues (2006). Using intervention research, they determined that early reading difficulties in most readers who struggled with reading tasks in first grade can, in fact, be successfully remediated. They found that reading difficulties were best explained by differential learning opportunities (in both in- and out-of-school contexts), rather than by cognitive differences on the part of the children.

Furthermore, they replicated this finding with kindergarten students; they found that 58% of the children who were involved in the intervention in kindergarten and continued to need—and received—remedial assistance in first grade performed at average levels on all measures of reading achievement at the end of first, second, and third grades. These findings led the researchers to conclude that either kindergarten intervention alone, or kindergarten- and first-grade intervention combined, can prevent long-term reading difficulties in the majority of children identified as at risk for such difficulties at the beginning of kindergarten.

Reflecting on the **Portraits**, perhaps as a consequence of frequent ear infections, Emma’s articulation and her difficulties identifying and generating rhyming words suggest to her teachers that she may be at risk for difficulty with important component skills of reading, such as phonological awareness and phonological processing. Consistent with ELAS Feature 3, the teachers use observational data, as well as screening data, to ensure that Emma, even while in a prekindergarten program, receives appropriate support services (i.e., with a speech and language pathologist) that may serve to mitigate against long-term consequences of these risk factors. Furthermore, multiple individuals participate in the intervention, including her teachers and parents.

“... findings led the researchers to conclude that either kindergarten intervention alone, or kindergarten- and first-grade intervention combined, can prevent long-term reading difficulties in the majority of children identified as at risk for such difficulties at the beginning of kindergarten.”

ELAS FEATURE 4: A literacy assessment system should yield information that is useful to guiding teacher decision making so that literacy instruction can be tailored to the various profiles of strength, challenge, and interests that students present.

This feature focuses on usefulness. It is possible to have an assessment system that includes a number of reliable measures but is not all that useful to teachers. To understand why usefulness is such an important feature, we point to the research of Carol Connor and her colleagues.

Studies of literacy learning reveal that children who have the same instructional opportunities respond differently to these opportunities. For example, in a systematic and wide-reaching program of research, Connor and her colleagues (Connor, 2019) determined that students with weak decoding skills made greater gains when they were in classrooms in which the teachers committed more instructional time to teaching phonics and fluent reading, while students with stronger decoding skills made weaker reading gains in these same classrooms. Furthermore, students with weaker vocabulary knowledge made weak gains in classrooms in which they were asked to spend significant amounts of time reading independently, whereas children with stronger vocabulary skills made greater gains in these classrooms. Finally, students with weaker decoding skills showed greater gains when teachers gradually increased the amount of independent, meaning-focused instruction across the school year.

These findings regarding child-by-instruction interactions were observed in preschool (Connor, Morrison, & Slominski, 2006), in second grade (Connor, Morrison, & Underwood, 2007), and in third grade (Connor, Morrison, & Petrella, 2004). What is especially noteworthy about this program of research is that there were no “inoculation effects;” in other words, receiving high-quality instructional opportunities at a single grade level did not protect students from reading difficulties if they received lower-quality instruction in later grades. Instead, individualized literacy instruction needed to be delivered effectively across grades one through three for students to attain grade-level literacy expectations.

ELAS Feature 4 urges that assessment provides information that will guide teacher decision making so that instruction is tailored to the strengths and challenges presented by each of the students. While this feature is evident throughout the **Portraits**, there are several particularly striking examples. One is the use of the data binder in which teachers enter data specific to standards or components of standards; these data support the teachers in monitoring the progress of students and adjusting instruction accordingly. In fact, the teachers are portrayed “handing off” the data binders, ensuring that all teachers have access to data with which to plan subsequent instruction. As another example, recall that when Emmanuel provided ample evidence that he had mastered word reading, his teacher focused on reading fluency, especially prosody. Similarly, this systematic monitoring, hand-in-hand with the use of the spring benchmark assessment, led Emma’s teachers to recommend that Emma attend summer school, which ultimately increased her word reading skills. A final example is the formation of needs-based small groups in first grade, ensuring that students are receiving instruction appropriate to their strengths and challenges.

“Receiving high-quality instructional opportunities at a single grade level did not protect students from reading difficulties if they received lower-quality instruction in later grades.”



ELAS FEATURE 5: A literacy assessment system should be informed by the range of factors that account for literacy achievement.

As descriptions of ELAS Features 1–4 suggest, there are a number of factors that account for literacy achievement; furthermore, the factors play different roles over time (see Feature 6). Thus, a solid assessment system should address this range and variability of factors. We illustrate this ELAS Feature with a few examples drawn from research.

Specific to assessing comprehension, Ahmed et al., (2016) found that background knowledge, vocabulary knowledge, word reading skill, inference making, and reading strategy use all made significant direct contributions to comprehension. O'Reilly, Sabatini, & Deane's (2013) research added student motivation and engagement to this list. Indeed, research has identified many factors that account for students' reading comprehension, including—but not limited to—concepts of print, reading motivation and engagement, decoding knowledge and strategies, phonological awareness, reading fluency, vocabulary and morphological knowledge, knowledge of text structure, content knowledge, strategic reading, and executive function skills (see Cartwright & Duke, 2019).

The point of this ELAS Feature is that educators need to be able to entertain a broad range of possible explanations for students' reading achievement. In the **Portraits**, we see the range of evidence that the teachers collected to compile a rich picture of each child's literacy development; this includes evidence of: metalinguistic knowledge, phonological awareness, morphological analysis, language comprehension, word reading/fluency, vocabulary knowledge, comprehension, and reading strategies. Furthermore, the **Portraits** reveal the broad range of tools and processes that teachers use to gather evidence regarding literacy development. In these **Portraits**, we see teachers using: games; observations; writing samples; formal assessment, including computer-adaptive assessment (that provides standardized data); data binders; and retellings.

ELAS FEATURE 6: A literacy assessment system should take into consideration the complexities of reading comprehension and reflect the dynamic and developmental nature of comprehension.

“The ultimate goal of reading instruction is to support readers to comprehend, or to ‘extract and construct meaning through interaction and involvement with written language’.”

The ultimate goal of reading instruction is to support readers to comprehend, or to “extract and construct meaning through interaction and involvement with written language” (Rand Reading Study Group [RRSG], 2002, p.11). Reading comprehension is a complex and dynamic activity. It begins with a purpose for comprehending and conditions (e.g., texts, mood) that have been shown to affect comprehension. It is complex because at the sentence level, text comprehension depends upon the ability to process words, virtually simultaneously attending to their orthographic (spelling), phonological (sound), and semantic (meaning) representations, and connect words using rules of syntax (word order). Beyond the sentence, the reader must integrate meaning across sentences, making use of relevant prior knowledge; engage in inferencing to bring cohesion to the text; use text structure and features; and consider the authors' goals and motives (Graesser, 2015). The result of this activity is a mental representation that reflects the overall meaning—or situation model—of the text (Kintsch & van Dijk, 1978).

Reading comprehension is a dynamic activity because the variables that most strongly predict comprehension skill change over time. In the early grades, decoding skills, which include the processes that are needed to decipher written code (i.e., phonological processing, orthographic processing, and word recognition) are evident as contributors to comprehension. In the later grades, vocabulary knowledge, inference generation, and oral language are stronger contributors (Catts, Hogan, & Fey, 2003; Ehri, Nunes, Stahl, & Willows, 2001). And after grade six, inferencing skill and background knowledge are increasingly predictive of reading comprehension (Ahmed et al., 2016). Furthermore, as students advance through the grades, disciplinary knowledge (Goldman et al., 2016) and academic language skills (LaRusso et al., 2016) play an increasingly important role in comprehension. Although the strength of these contributors changes over time, that should not be interpreted to mean that instruction should address only the strongest contributors in a given developmental period.



In the **Portraits**, we see the multiple ways in which teachers are attending to comprehension. For example, we see that they are mindful of the reading diets of young children so that they get information about how students comprehend different genres of text and read for different purposes. In kindergarten, the teacher is providing students opportunities to read literature, as well as science, social studies, mathematics, and the arts. Similarly in grade 2, the teacher is attentive to the students' reading and writing in units of instruction that are designed across different content areas. Furthermore, the teachers are gathering information, through retellings and text-based discussions, regarding the processes in which students engage that promote or inhibit comprehension.

ELAS FEATURE 7: An assessment system should (a) present texts and tasks that are meaningful to learners and reflect meaningful uses of reading, (b) provide information regarding students' interests so that educators can use this information in planning instruction, and (c) take students' interests into account when reporting assessment results.

There is substantial research indicating that interest, especially situational interest (i.e., temporary *interest* based on environmental factors such as the task or a specific text), increases readers' level of involvement with the text, as well as positive affect toward reading. A number of studies have shown that children's comprehension, inferencing, deeper processing of the text, and retention are facilitated by reading personally interesting text segments, as well as by reading passages written on high-interest topics (e.g., Hidi, 2006). Furthermore, well-developed individual interests can help individuals comprehend beyond what is typical for them (Renninger & Hidi, 2011).

Research has demonstrated that interest has a powerful facilitative effect on cognitive functioning. Its influence on academic performance has been established across individuals, knowledge domains, and subject areas. Theorists have also suggested that interest may be the key to early stages of learning, as well as to differences between expert and moderately skilled performers (Alexander, 1997; Renninger, Hidi, & Krapp, 1992; Hoffmann, Krapp, Renninger, & Baumert, 1998).

"A number of studies have shown that children's comprehension, inferencing, deeper processing of the text, and retention are facilitated by reading personally interesting text segments, as well as by reading passages written on high-interest topics."

In summary, interest is important to both the motivation to read and the memorability of the text. Certain text characteristics such as ease of comprehension, novelty, surprise, vividness, intensity, and character identification contribute to situational interest. Interesting text segments produce superior reading comprehension and recall. Well-developed individual interest in an area may help individuals to cope with relevant but boring texts. Situational interest elicited by texts can maintain motivation and comprehension, even when individuals have no initial interest in the topic.

In the **Portraits**, we see the multiple ways in which teachers are attending to student interest; in fact, the pre-K teachers' initial contact with parents is largely driven by questions regarding what the children find interesting in their daily lives. The teachers make available to the students reading material designed to both stimulate and satisfy their interests. Teachers' interest inventories inform their selection of text to be included in both instructional and independent time.

ELAS FEATURE 8: An assessment system should be adaptable to individual, social, linguistic, and cultural variations.

It is widely recognized that assessment practices can serve an exclusionary purpose for students who are from minoritized groups by virtue of race, ethnicity, and/or home language (Boykin & Noguera, 2011). One way to redress this trend is to focus not only on assessment *of* learning but on assessment *for* learning (see Pellegrino et al., 2001). The focus of such assessment should be on *why* students perform as they do and *how* differences in performance should be addressed. This assessment should consider the contexts, social-cultural considerations, and experiences that are related to students' diverse backgrounds.

“It is widely recognized that assessment practices can serve an exclusionary purpose for students who are from minoritized groups by virtue of race, ethnicity, and/or home language”

For example, Solano-Flores (2011) has asserted that differences in “communication patterns, values, beliefs, and lived experiences” help to explain the comparatively lower test performance for emergent bilingual speakers, noting that English learners performed better on standardized achievement test items when the items were modified to reflect local dialect, were linguistically simplified, or were modified to be more experientially meaningful for these students. Stiggins (2002, p.1) has urged that we ask: “How can we use assessment to help all of our students *want to learn*? How can we help them feel able to learn?” Such a focus would naturally lead to questions about students' opportunities to learn and how the cultural assets they bring to the table can be used productively to enhance learning opportunities.

Consistent with **Recommendation 2.4**, the **Portraits** are filled with examples of how the teachers are bringing an asset perspective to their instruction and are using approaches to assessment that will inform their understanding of the child, including the children's—and families'—funds of knowledge that the teacher can build upon. As one example, Ms. Robins, as she teaches Ayesha, is attentive to connecting Ayesha's background knowledge to the ideas in the text. The spirit of the assessment processes—including their ongoing, informal nature, in hand with the instructional decisions they support (e.g., needs-based grouping)—is consistent with the goal of helping the students feel “able to learn” and equipping them with the knowledge and skills supportive of learning.

Tools/Resources for PHASE II, Principle #3

These tools can be adopted or adapted to help educators and educational leaders evaluate an existing assessment system and design an ELAS that reflects what we know about literacy development and learning.

Assessment for Reading Instruction, fourth edition (Guilford Press, 2019)

This book by Katherine A. Dougherty Stahl, Kevin Flanigan, and Michael C. McKenna explains in reader-friendly text how to use both formal and informal assessments to evaluate students' strengths and needs in all components of reading. It is available for purchase online.

Essential Instructional Practices in Early Literacy: Grades K to 3, and online modules (MAISA/GELN/ELTF, 2016)

This set of resources outlines ten instructional practices in early literacy that research suggests can have a positive impact on literacy development.

Available at <https://literacyessentials.org>.

Free or Very Low Cost Early Literacy Assessments with Diagnostic Value and Demonstrated Reliability and Validity (Duke, Lindsey, and Brown, n.d.)

Authors Nell K. Duke, Julia B. Lindsey, and Erin M. Brown provide information about valid and reliable early literacy assessment tools that are free or at very low cost.

Available at www.michigan.gov/documents/mde/Free_and_Very_Low_Cost_Assessments_FINAL_3-23-18_621439_7.pdf.

Teaching advanced literacy skills: A guide for leaders in linguistically diverse schools (The Guilford Press, 2016)

This book by Nonie K. Lesaux, Emily Phillips Galloway, and Sky H. Marietta guide school leaders through the design and implementation of advanced literacy instruction. The book includes reproducible forms and templates that can be used to design, implement, or evaluate a literacy assessment system.

Available for purchase online.

Understanding and Using Reading Assessment K-12, third edition (ASCD, 2018)

This book by reading and assessment expert Peter Afflerbach provides detailed case studies from all grade levels to illustrate reading assessment done well. It also includes 15 reproducible forms and checklists that teachers and administrators can use to optimize their reading assessment efforts.

Available for purchase online.

A listing of all Tools and Resources mentioned in this Guide to help you develop an early literacy assessment system (ELAS) is available online at www.MichiganAssessmentConsortium.org/ELAS.



Notes

SECTION III-4

PURPOSES, USERS, AND TECHNICAL ADEQUACY OF ASSESSMENTS: Features of early literacy assessment that reflect what we know

*This chapter provides information to help districts address the needs of multiple users of assessment, who often have different purposes for assessment, within one integrated early literacy assessment system (ELAS). It describes the function of various assessment tools and practices (and their desirable inferential properties) and considers the specific components of literacy that can and should be assessed. The content provides some of the relevant explanation and backing for **Principle #4** and associated **Phase II Implementation Recommendations**.*

Phase II RECOMMENDATIONS (Principle #4)

Principle #4: The ELAS must reflect what we know about the PURPOSES, USERS, AND TECHNICAL ADEQUACY OF EARLY LITERACY ASSESSMENT.

2.1: The **ELAS LEADERSHIP TEAM** should use the logic model and theory of action (called for in Phase I) to guide the selection and implementation of assessment tools and resources for inclusion in the system.

The **ELAS LEADERSHIP TEAM**, in collaboration with **PRINCIPALS AND TEACHERS**, should:

2.4: Select individual assessment resources on the basis of evidence of appropriate levels of technical quality with respect to validity, reliability, and fairness given the intended interpretive use(s) and the potential consequences for students:

High-stakes judgments call for **high levels** of technical quality.

Lower stakes decisions require **sufficient** technical quality.

2.5: Provide technical assistance and guidance to the system's various assessment users to help ensure that they can select assessment tools and practices that best meet their information needs and then use the results from assessment in appropriate and technically defensible ways.



Introduction

There are several challenges in developing a cohesive assessment system where multiple users of assessment (e.g., teachers, students, families, administrators, policymakers) use different types of assessment data for various purposes. In this section, we address these challenges and make specific recommendations for building a cohesive system, where each user understands the important decisions that other users make as well as the types and desirable properties of the assessments to make those decisions.



The science on literacy development is vast and rapidly expanding. Districts need someone in their district or consulting with their district (e.g., ISD) who has time devoted to continuing education specifically in the area of reading, and/or writing.

In starting this discussion, we distinguish between two basic functions of educational assessment. **Assessment for learning** describes the *processes* that occur daily during instruction that help teachers plan instruction and adjust it as needed, based on student learning as it is occurring. Teachers use observational data, interviews with students, questioning, and probing to determine students' levels of understanding and to adjust instruction "in the moment" in order to nudge student learning forward. This assessment process is formative in nature. **Assessment of learning** occurs at the *end of instruction*, which may be at the end of a unit of instruction, a marking period or semester, or at the end of a school year. This assessment is summative in nature. It might consist of a state assessment, or formal tests developed and used by a teacher. The goal of summative assessment is to see where students are in the trajectory of their learning so that, if necessary, an intervention can be determined and implemented.

Both assessment functions are important but are different from each other. Used together, they provide a more balanced approach to assessment. For example, a second-grade teacher assesses students on which syllable types they can read. She uses the results of this assessment for learning to flexibly group and re-group her students for small-group, targeted instruction—a powerful tool for moving students' learning forward (e.g., Foorman, Beyler, Borradaile, Coyne, Denton, Dimino, ... Wissel, 2016). Although such data serves a very important instructional purpose, it may not provide accurate information about the likelihood that a student will meet grade-level standards. On the other hand, an administrator needs information from assessment of learning about how many students might not meet grade level standards so that she can allocate resources (personnel) for supplemental intervention for those students.

This implies that we need a *system* of assessment to meet the needs of multiple stakeholders. Each stakeholder also needs to be aware of the instrumental function of assessment tools and processes used by other professionals to improve learning outcomes for students. Therefore, increasing the assessment literacy among all stakeholders is beneficial for promoting learning for all students.

Four essential factors to consider

We identify four essential factors of an assessment system that stakeholders need to consider, particularly for literacy decisions in kindergarten through grade 3:

1. **Users** – Stakeholders need data from assessment to answer the questions that are relevant to their roles and responsibilities for moving student learning forward.
2. **Decisions** – Each user must first identify the question that they are seeking to answer, before choosing an assessment or interpreting the assessment data.
3. **Technical adequacy** – In order to appropriately answer the question identified, an assessment needs to demonstrate the level of technical rigor necessary for that particular decision.
4. **Content** – Each user must know the specific domains of literacy that an assessment measures and how that domain relates to overall achievement in reading.

Users

Children and families. Young learners can actively participate in assessment for learning activities in the classroom in order to have agency in their own learning. Families typically use results from various classroom assessment activities, both formative and summative, to understand how their child is progressing in their literacy development, how much progress their child is making toward grade-level expectations, and whether or not their child needs additional support in order to meet grade-level expectations.

Teachers. Starting with an instructional plan, teachers use the formative assessment process to determine targets for student learning, the instructional strategies to be used, when (and how) levels of student understanding will be checked as the lesson unfolds, and most importantly, what changes to instruction within the lesson might be needed, depending on what students indicate they know and can do, in order to nudge learning forward. They make these decisions in the moment of teaching to provide individualized feedback, for the next week when they need to re-teach certain concepts or re-assign students to different small groups. Because teachers have so many different decisions to make, including requesting further intervention for their students, they need a large range of assessment tools and practices depending on each specific purpose.

Literacy specialists or intervention teachers. Typically, students work with literacy specialists or intervention teachers after they have already been identified as needing support based on data from a district-selected assessment. Specialists need to ascertain the instructional needs for individual students via diagnostic assessment and then ensure that students receive differentiated intervention based on the diagnostic information. Specialists also use assessment to determine whether students have learned what is taught.

Other specialists in schools bring a wealth of expertise to the school to promote students' literacy development. School psychologists have a deep understanding of the uses and limitations of assessment for identifying which students need additional intervention (at Tier 2, Tier 3, or within special education). Social workers and school psychologists can also assess other factors that may impact student literacy development and recommend individualized adjustments to literacy instruction for students. Special education teachers and speech and language pathologists have extensive literacy backgrounds that can be very useful for guiding school-level curricular and instructional decisions as well as problem solving for individual students.

Administrators and school leadership teams. An important role for leaders in the school (we include decision making teams in this definition of leaders) is to make sure that students in their buildings/districts are making progress towards meeting state and district standards and that resources are allocated appropriately to best meet the building's or the district's goals. Historically, leaders interpret state assessment data and other data in grades 3 through 12 to understand student progress more broadly (i.e., compared to students in prior years, to students in other schools or districts, to classrooms that are making more or less growth, and/or to other students in the state). It is important to provide the instructional resources to the areas identified

through these data systems; however, it is more important to prevent those issues through increasing resources to building literacy in kindergarten through grade 3. Assessment processes described in this Guide (e.g., initial, extensive, progress monitoring, formative assessment process) can guide instructional decisions that have three times the impact on student literacy outcomes in kindergarten through grade 2 as the impact of instruction in later grades (Scammacca, Fall, & Roberts, 2015).

Additionally, leaders have the responsibility to use assessment to determine whether the systems-level decisions they make for their school or district are working. These leaders must also assess the implementation of their systems before they can determine which practices at their school worked or did not work.

Policymakers. The development of literacy has long been a public health initiative. When students are provided with high quality early literacy experiences (i.e., ages 4 through 8), society benefits from higher rates of high school graduation, lower incarceration rates, higher levels of employability, and improved life satisfaction (Allensworth & Easton, 2005; Balfanz, Bridgeland, Moore, & Fox, 2010; Hernández, 2012). Furthermore, when reading difficulties are identified early enough and appropriate instruction is provided in the early elementary grades, the impact of those difficulties later in life is greatly reduced and the higher costs of more intensive intervention later is prevented (e.g., Blachman, Schatschneider, Fletcher, Murray, Munger, & M. Vaughn, 2014).

Local and state policymakers play an important role in assisting educators to work successfully to provide students with needed literacy resources and instruction. Policymakers can provide human, financial, or technology resources to educators; they also can adopt policies that will support systematic administrator, teacher, or parent activities. For example, the State of Florida provided a free high-quality reading screening and diagnostic assessment statewide along with highly qualified reading coaches in every elementary school, extended training for all elementary teachers in reading instruction, and statewide technical support. Following those efforts, the percentage of students reading at grade level increased and the percentage of students at high risk of failing to meet standards decreased (Foorman, Petscher, Lefsky, & Toste, 2010).

Decisions

Another significant challenge with developing a cohesive assessment system stems from the competing demands of collecting enough information to make the informed decisions needed to support student literacy development while at the same time minimizing the time spent in assessment that could potentially reduce valuable instructional time. In well-meaning efforts to reduce assessment time, some assessment scores are used for purposes for which they were not designed, resulting in equally undesirable outcomes.

For example, teachers are often given data reports that are designed to indicate which students have made progress in their overall reading abilities and are told to make decisions from the data. However, this type of data provides limited information for the types of decisions that teachers need to make. When used for the purposes for which

they were designed, assessment practices lead to effective instruction that improves student outcomes (Graham et al., 2012; Hamilton, Halverson, Jackson, Mandinach, Supovitz, & Wayman, 2009). However, administering assessments without first making plans for how assessment information will inform instructional decisions can lead to wasted time and other resources, as well as inappropriate decisions.

Before collecting assessment data, educators need to know 1) what **decision(s)** will be made based on the data, and 2) which specific **score type(s)** from the assessment is validated for that decision. It can be difficult to articulate the questions/decisions that are being made based on data, and many times educators ask questions of the data that cannot be answered.

To help with identifying this information, the most relevant instructional decisions are provided in **Table III-4.1**. Those listed are also supported by research as having a positive impact on student outcomes. Illustrations of assessment to answer these questions are embedded in the **Portraits** under the headings “Assessment” and “Using Data to Inform Instruction.”

Identifying the right question

Questions answered through the **formative assessment process** for information used daily by teachers during instruction include:

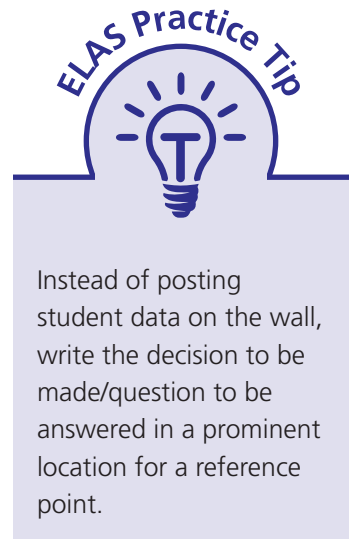
- Are students learning what is being taught?
- What instructional adjustments are needed? For which students?
- What instruction is needed next for each student?

Questions answered through **student assessment collected periodically** and used by school teams to make instructional changes:

- Which (and how many) students achieved and did not achieve grade-level proficiency standards?
- Which students (and how many) are at risk for not meeting the grade-level proficiency standards; thus, need additional instructional support?
- What do the students in the school know and what are the ongoing learning needs and interests of students in the school?
- For which specific literacy skills do students need support through small-group instruction or supplemental/Tier 2 intervention or intensive/Tier 3 intervention?
- Are students making progress toward meeting end-of-year expectations? Who needs more intensive intervention?
- Does this student have a learning disability or other disability that impedes learning?

Questions answered through **periodic assessment of the school's processes** by school teams:

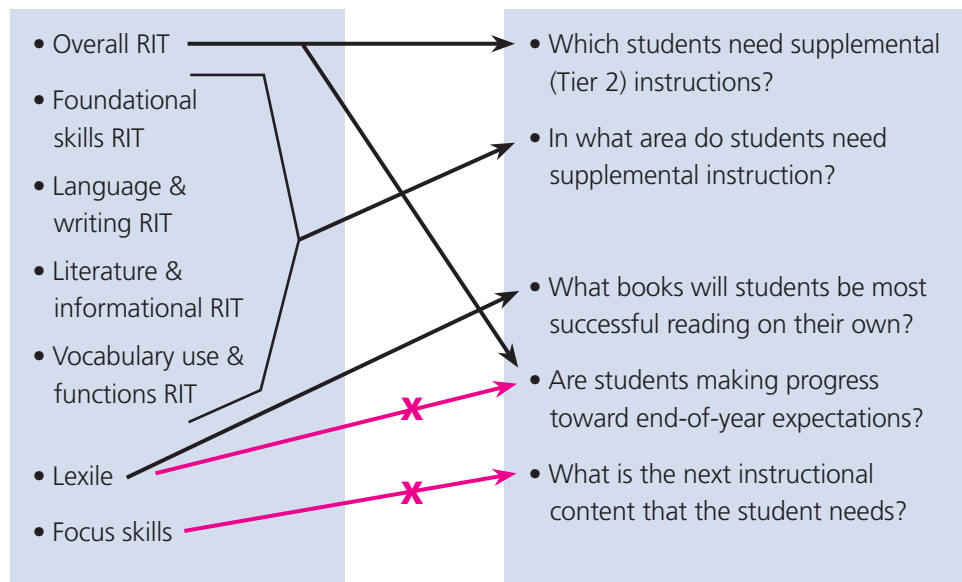
- Are the assessment and intervention systems at our school effective for most students?
- Is instruction being implemented as intended or do we need to provide more support to implement effective practices for students?



Matching scores to decisions

The next step is to identify which scores match each decision and which user needs each type of score. Commercial assessment tools are constantly evolving and striving to address more of the decision points listed above. It can be a challenge for schools to stay current with the research indicating which instructional decisions can be accurately associated with each type of score. As an example, the NWEA MAP assessment reports multiple scores (Overall RIT, Foundational skills RIT, Language and Writing RIT, Literature and Information RIT, Vocabulary Use and Functions RIT, Lexile, and Focus Skills), each of which is designed and validated for different purposes for different users. However, many common uses of some scores do not have research support. Examples are provided in **Figure III.4.1** of appropriate uses of scores (marked by arrows) and misuses of scores (marked by **X**).

● **FIGURE III.4.1**
Example Matching
Score Types from
the NWEA MAP to
Decisions



Technical adequacy

In any educational assessment, there is some degree of error that affects the obtained score a student receives on a test. Assessments cannot be 100% accurate at capturing a student's true learning or knowledge level because assessment results represent only a sampling of the student's behavior, knowledge, or skill. That is, the score the child obtains is an estimate of their true skills in the area assessed plus error resulting from various sources.

Error is introduced from two primary sources: random and systematic. **Random error** is introduced when an assessment results in inconsistent scores across time, across different forms of the test, or across items within a test. **Systematic error** often results from the test design itself. If there is a certain feature of a test that systematically and consistently under- or over- estimates a student's true ability, that test feature leads to systematic error in the obtained score. For example, if a vocabulary test designed to measure students' vocabulary knowledge (breadth of vocabulary) includes items that are culturally-dependent (e.g., Hanukkah), the obtained score may represent a different construct (e.g., cultural knowledge) than what was

intended (e.g., vocabulary knowledge). Both random error and systematic error can be estimated in carefully designed studies of assessment. In these studies, the degree to which random error is controlled in an assessment is called reliability. The term validity is used to describe the degree to which systematic error in the interpretation of a test is controlled.

Reliability refers to the consistency with which an assessment provides the same information about the same student, regardless of the time the student is assessed or if different forms of the assessment are given. An assessment cannot be valid without being consistent; therefore, reliability is necessary before validity can be evaluated. Reliability is reported on a scale of 0.00 to 1.00. A reliability of 0.50 means that the assessment is about as reliable as the flip of a coin.

There are different types of reliability reported for different assessment tools. These different types of reliability are included in the glossary of this Guide. Reliability information can be found in technical documentation for an assessment and at the National Center for Intensive Intervention (NCII) (<https://intensiveintervention.org/>). The NCII provides an independent evaluation of the reliability, validity, and fairness (i.e., bias) for many commercial screening (initial) and progress monitoring assessment tools.

Validity describes the degree to which theory and evidence support the suggested interpretation of assessment data. Validity is not a property of a test, per se; rather, it is the human interpretation of the assessment data that is valid or not. Thus, it is important to understand for which uses an assessment was validated (that is, for which uses is supportive information available)? This should be clearly stated in technical documentation. In such technical documents, assessment authors describe the construct that the assessment is designed to measure (i.e. theory) and then report the correlation between their assessment and another well-established gold standard assessment, such as a state achievement test (i.e., the supportive information).

COMMON MISPERCEPTION: GRADE LEVEL

One of the most common pieces of information that users want from literacy assessment is the student's estimated grade level of reading. If a user is asking this question, it is absolutely critical at this juncture to determine what decision the user wants to make based on that information. Often, users want to use grade level to do one of the following:

- Describe how far above or below a student is from their current grade level
- Measure growth
- Group students for instruction

Although assessment would be much more intuitive to use if grade-level information worked this way, grade-level information has NOT been validated for any of the three purposes listed above (e.g., Parker, Zaslofsky, Burns, Kanive, Hodgson, Scholin, & Slingbeil, 2015). It is important to keep in mind that the grade level reported has one purpose: to match students to the level of text they will likely read successfully when they are reading independently. However, when choosing texts for students to read independently, users should also keep in mind that information about a student's interest in the topic area of the text is more important for helping students choose books to read independently (Renninger & Hidi, 2011).

Just like reliability, validity is on a continuous scale of 0.00 to 1.00, with estimates between 0.50 and 0.70 being most common. It is important to note that different types of validity correlations are needed for different types of decisions. (See the glossary for more information on each type of validity estimate.) Different levels of reliability and validity evidence are required for different decisions.

A very important aspect of validity is associated with the consequences for students or others of using the results—consequential validity. Users must investigate both positive/negative and intended/unintended consequences of the inferences made based on an assessment result. If the assessment result is used to design instruction and leads to improved literacy development, the assessment has high positive consequential validity. On the other hand, assessment has little or negative consequential validity if the assessment results cannot be used to adjust instruction, were not used to inform further assessment, or had an adverse impact on other outcomes. Again, note here that validity is not a property of the test, but is associated with the decision made based on the results. Therefore, it is incumbent upon users to evaluate whether decisions result in positive or negative outcomes, intended or otherwise.

Fairness. Relatedly, use of assessment data may not be fair to a certain group of students if used without validity evidence. Assessment can be misused if it is systematically biased toward certain groups of students, or if the assessment data is not used as intended. This brief list demonstrates a few concrete steps that schools can take to increase fairness in their use of assessment.

- Carefully evaluate if the decisions that will be made based on this assessment align with the intended purpose of the assessment.
- Select tools for which there is documentation of the steps taken to assure fairness (that is, assure that the assessment is not biased towards any group of students). For example, it is critical to ensure that a broad range of students and educators from a wide variety of backgrounds are part of the development, review, and field testing of the assessment. This can include formal fairness reviews by experts in detecting bias and the use of statistical procedures for detecting bias¹.
- Request results of the steps taken by assessment vendors to assure the fairness of their assessment tools.
- Check the demographics of the norm groups from the technical manual. The norm group or comparison sample should contain a significant and roughly proportional number of students in each demographic category of the students found in the school (e.g., racial-ethnic, socio-economic status, English learner population, and special education status category).
- Higher stakes decisions should be based on the triangulation of several data points. This usually means integrating results from two or more assessment tools in addition to data from teacher observations or examination of students' work.

¹ One common statistical procedure for detecting bias is differential item functioning. It should be noted that very few assessment tools have conducted and publicly published the results of DIF studies (as well as the steps taken to review items where DIF is detected), a shortcoming of many assessment tools.

Related to considerations of reliability, validity, and fairness, the most important implication is that **high-stakes decisions**, such as retention in grade, should never be made based on only a single test score (AERA/APA/NCME, 2014; Snow, Griffin, & Burns, 2005). A decision is high stakes when the consequences of an inaccurate decision are very high for the students involved.

- **High stakes decisions** require the highest levels of reliability, validity, and fairness, as well as multiple assessment data that support the same conclusion.
- **Moderate stakes decisions**, such as determining which students need small-group intervention outside the typical classroom, require slightly lower reliability, because errors in placement can be readily observed and corrected without consequence to the student.
- **Lower stakes decisions**, such day-to-day instructional decisions, may not require formal evidence of reliability, validity, or fairness.

As demonstrated in the **Portraits**, multiple data points were used with increasing stakes of assessment. Furthermore, the primary data points used for decisions were commensurate with the level of technical adequacy of the data point. For example, Mr. Ahmed used learning checks to create small groups in his class and then regrouped his students after Emmanuel mastered the text features component. Flexible grouping of students during instruction does not require high levels of technical adequacy in assessment, and learning checks are powerful tools for moving learning forward when used in this way. For the decision to have Ayesha receive more individualized instruction, Ms. Robins used assessments that had higher levels of technical adequacy (e.g., the benchmark assessment) and were based on several data points (across grades 1 and 2).

Information on the reliability, demonstrated validity for specific decisions, and fairness of assessment tools should be provided by assessment vendors to educators via technical manuals and literature that describe these technical characteristics in accessible language. Standards for the levels of reliability, validity, and fairness for many moderate stakes decisions have been set by the National Center on Intensive Instruction (<https://intensiveintervention.org/>) and are the standards adopted for this Guide.

“Standards for the levels of reliability, validity, and fairness for many moderate stakes decisions have been set by the National Center on Intensive Instruction.”

Table III.4.1 provides a crosswalk between the educational decision, typical type(s) of assessment used, the level of technical adequacy required from the assessment to make the decision, and the users who are likely to make those decisions. These specific questions/decisions were chosen based on research studies indicating their utility for moving learning forward. Many of these decisions are also included in federal and Michigan policy. In the second column we match the decisions with the assessment type that educators typically use. Many educators will name the decisions by assessment type (e.g., initial, extensive, benchmarking, progress monitoring). We encourage educators to use the “decision/question” instead of naming the general type of the assessment to increase clarity and reduce confusion in data meetings.

■ **TABLE III.4.1 — Decision/Question, Assessment Users, Assessment Types, and Required Level of Technical Adequacy**

Decision/Question	Assessment Type	Required Level of Technical Adequacy	Assessment Users
Tier 1 (All Students)			
<p>Determine students' ongoing learning needs, interests, and strengths and facilitate learning</p> <p>How much are students learning from instruction?</p> <p>Where is instruction going and how do we close the gap between where the student is and their learning target?</p>	<p>Criterion-referenced measures, which can serve to inform areas for re-teaching or investigating pre-requisite knowledge.</p> <p>Information collected by teachers during instruction using the formative assessment process.</p> <p><i>Illustrated by the observations portion of the Portraits.</i></p>	<p>Content validity at Level 4 in Figure III.4.2</p>	<p>Primary user: Teachers make day-to-day instructional decisions about literacy skills on which to focus instruction for individual or groups of students.</p> <p>Other users: Students use feedback from the formative assessment process to adjust their learning strategies.</p>
<p>Determine proficiency</p> <p>Who achieved the content?</p> <p>Who is proficient?</p>	<p>Summative assessment</p> <p>State assessment</p> <p>National criterion or norm-referenced tests</p>	<p>Reliability > .90</p> <p>Content Validity</p>	<p>Primary users: Administrators – for accountability & resource allocation</p> <p>Policymakers</p> <p>Other users: Parents/guardians</p>
<p>Determine student achievement</p> <p>Can the students perform the curriculum/grade-level standards?</p> <p>Are there areas that need to be reviewed or are there areas that need to be further explored?</p> <p>How should students be grouped for the language and literacy block?</p>	<p>Summative assessment embedded in the curriculum such as quizzes & unit tests</p> <p>Free and Very Low Cost Assessment list</p> <p><i>Illustrated by the lesson checks in the Portrait.</i></p>	<p>Content validity with overall reading achievement</p>	<p>Primary user: Teachers and coaches making day-to-day instructional decisions about what students learned from the instruction.</p> <p>Other users: Students, Parents</p>

Decision/Question	Assessment Type	Required Level of Technical Adequacy	Assessment Users
<p>Determine risk status for meeting end-of-year expectations</p> <p>Which students do and do not need additional support to meet end-of-year expectations?</p> <p>Which students need increased intensity of intervention (Tier 2, Tier 3, special education services)?</p>	<p>Interim or benchmark assessment (also referred to as screening or initial assessment) that provide a “risk score” that is standardized, norm-referenced at national, state, or local level and predicts reading comprehension (Figure III.4.2 level 1)</p> <p><i>Illustrated in the Portraits by the computer adaptive benchmark assessment.</i></p>	<p>Reliability > .80</p> <p>Predictive validity > .60</p>	<p>Primary user: Administrators – for resource allocation</p> <p>School leadership team & teachers – determining placement in standard protocol interventions</p>

Tier 2 decisions (assessment used with students scoring below a cut-point on an initial assessment)			
<p>Determine primary areas for instruction for students who need more support</p> <p>What primary components of literacy do the students who need support to meet end-of-year expectations need to be taught?</p>	<p>Assessments that provide information about students’ strengths and weaknesses in their knowledge relative to the sub-components of literacy (Level 2 content in Figure III.4.2).</p> <p>Some interim assessment tools provide this extensive information alongside the initial information.</p> <p><i>Illustrated in the Portraits by the early reading, word reading, and language comprehension results, as well as the assessment conducted by the literacy specialist.</i></p>	<p>Reliability > .60</p> <p>Concurrent Validity > .60</p>	<p>Primary users: School leadership team and teachers to determine placement in standard protocol interventions</p> <p>Teachers to make instructional grouping decisions.</p>
<p>Determine learning progress</p> <p>Are students in supplemental (Tier 2) intervention making progress toward meeting expectations?</p>	<p>Interim or benchmark assessment occurring in winter and spring. Either initial information (risk score indicating Level 1 in Figure III.4.2) or extensive information (Level 2 content in Figure III.4.2) can be used.</p> <p><i>Illustrated in the Portraits by the computer adaptive benchmark assessment administered in January and May.</i></p>	<p>Reliability > .60</p> <p>Concurrent Validity > .60</p>	<p>Primary users: School leadership team & teachers – are interventions generally effective & which students need more intensive instruction?</p>

Decision/Question	Assessment Type	Required Level of Technical Adequacy	Assessment Users
Tier 3 decision (assessment for students receiving intensive instruction)			
<p>Determine learning progress of students who need more support</p> <p>Are students in intensive (Tier 3) intervention and special education making progress toward their individualized learning goals?</p> <p>Does a student have learning disabilities in areas related to literacy?</p>	<p>Summative assessment and progress monitoring assessment with equivalent, alternate assessment forms. These types of assessment provide information regarding students' progress toward mastering the component skills in level 3 or 4 in Figure III.4.2.</p> <p><i>Illustrated in the assessment that Ms. Robins administers to Ayesha during What I Need time.</i></p> <p>Assessment tools used to identify students for a learning disability need to be standardized and norm-referenced.</p> <p>Should occur at least monthly.</p> <p>For special education eligibility decisions, more frequent brief assessment may need to occur to reach the requisite minimum of 12 data points.</p>	<p>Alternate-form Reliability > .70 Slope reliability > .40 Slope predictive validity > .40</p>	<p>Primary users: School leadership team, reading specialists, school psychologists, and special education teachers – are interventions generally effective & which students need more intensive instruction?</p>

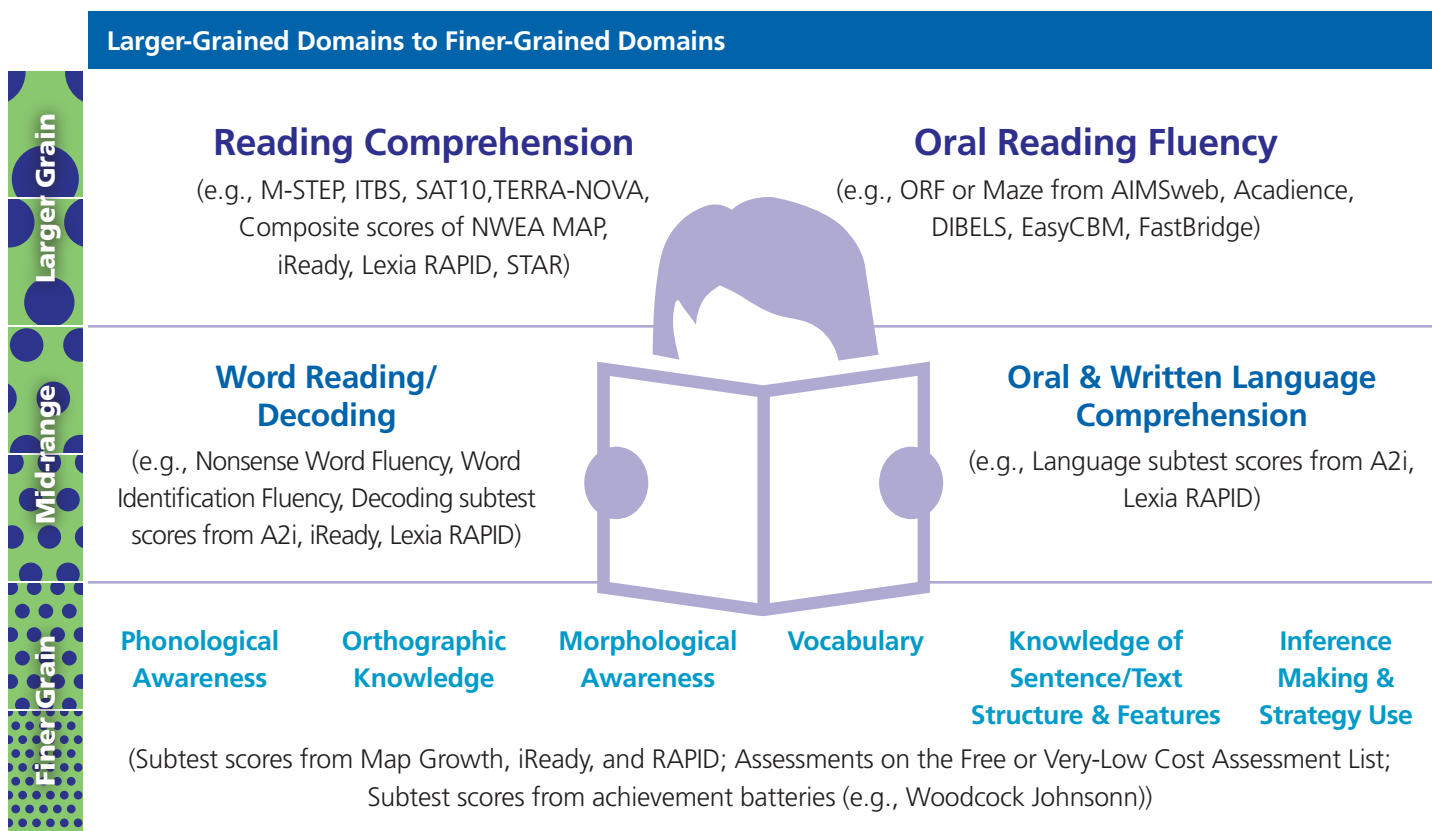
Content

When designing an assessment system, users need a depth of knowledge about the development of literacy and which components of literacy need to be measured at specific times in order to maximize the impact of instruction. Reliable and valid assessment of all components of literacy is not feasible due to time and resource constraints. Therefore, assessments must reflect a small sample of the target literacy domain. As a result, the interpretation of why students perform the way they do on an assessment can be dangerous, either by leading the teachers to concentrate on the inevitably limited definition of the domain reflected in the test, or by leading to misattributions based on insufficient information. Therefore, users should understand which content domains an assessment does and does not measure.

Assessment tools must be designed to measure the domains that predict success on later literacy outcomes *and* are malleable (can be changed by instruction occurring in schools). As demonstrated earlier, reading is a complex process, and having a deep

understanding of the components of reading is needed to promote students' learning. The domains of reading included in assessment depend completely on the decisions that will be made based on the assessment. Some decisions require more specific information than do others. For example, when a grade 2 teacher needs to make decisions about grouping students and determining day-to-day instruction for teaching vowel teams, she needs more detailed information about the vowel teams that her students have mastered. This specific information about vowel teams may or may not represent how students are achieving in their overall reading. Therefore, an assessment of a larger grain size that is an indicator of overall reading achievement in grade 2 (for example, oral reading fluency) would be needed to answer that particular question.

In **Figure III.4.2** we demonstrate how each of these domains of reading fit together and list some example measures of those domains. This is not a comprehensive list of constructs that impact reading. Note that the domains in this figure are all domains that (a) can be assessed, (b) have been shown to predict important outcomes in K through grade 3, and (c) are malleable in K through grade 3 (Connor, Spencer, Day, Giuliani, Ingebrand, McLean, & Morrison, 2014; Foorman, Herrera, Petscher, Mitchell, & Trukenmiller, 2015; Foorman, Petscher, Stanley, & Trukenmiller, 2017).



● **FIGURE III.4.2**

Example content & measures for the decisions described in Table III.4.1

Note: This graphic represents only a partial list of all constructs that impact reading. The assessment tools listed are examples; they do not represent the full range of options districts have available.

In **Table III.4.2**, we demonstrate how each specific reading domain content is aligned with specific decisions/questions and provide example assessments of those domains.

■ **TABLE III.4.2**
How different grain sizes of reading domain information are needed to meet different purposes

Reading domains (larger to smaller grain sizes)	Decision/questions	Example assessments
General reading achievement	Question: Were students supported enough to achieve expectations? Decision: Where to devote more school resources.	M-STEP (or standards-based assessment) For grades K-2: ITBS, TERRA-NOVA, SAT10 Each example test is a standardized, nationally normed test of reading achievement with internal reliability > .90
General reading achievement	Question: Which students do and do not need additional support to meet end-of-year expectations? Decision: To whom to provide Tier 2 instruction	The composite score of some computer adaptive screening assessments are standardized, nationally normed assessments that have internal reliability > .80 and predict one of the assessments listed in the row above > .60. They also have slope reliability > .40 for measuring growth across 3 times per year or monthly. Examples include NWEA MAP, iReady, Lexia RAPID, STAR The fluency rate of some Curriculum-Based Measurement screening assessments in standardized, nationally normed assessments that have parallel form reliability > .80 and predict one of the assessments listed in the row above > .60 and most have slope reliability > .40 for measuring growth weekly. Examples include AIMSweb, DIBELS Next, EasyCBM, FastBridge

Reading domains (larger to smaller grain sizes)	Decision/questions	Example assessments
Decoding and language comprehension	<p>Question: In which main area do students need supplemental instructional time?</p> <p>Decision: selecting Tier 2 interventions for groups of students.</p>	<p>Many computer adaptive assessments measure decoding and language comprehension. A2i, iReady & Lexia RAPID provide subtest scores for decoding and language comprehension.</p> <p>Curriculum-Based Measurement assessment systems measure decoding and need supplemental assessment to determine language comprehension.</p>
Phonological awareness, orthographic knowledge, fluency, vocabulary, sentence structure, text structure, comprehension	<p>Question: Why is a student struggling with reading?</p> <p>Decision: selecting Tier 3 intervention or individualized education plan (IEP) goals for individual students.</p>	<p>The subtest scores on computer-adaptive assessments like MAP Growth, iReady, and RAPID provide information about several, but not all of the domains.</p> <p>Assessments on the Free or Very-Low Cost Assessment list</p> <p>Subtest scores from various academic achievement batteries (e.g., Clinical Evaluation of Language Fundamentals, Woodcock Johnson Test of Achievement)</p>
Each of the reading domain areas listed in the section above	<p>Question: Where are the specific opportunities for learning progress day to day for individuals?</p> <p>Decision: content to re-teach and provide more practice; grouping students for instruction</p>	<p>Quizzes, unit tests, curriculum-embedded assessment, spelling inventories, informal reading inventories, assessments on the Free or Very-Low Cost Assessment list</p>



Tools/Resources for PHASE II, Principle #4:

Human resource recommendation

The science on literacy development is vast and rapidly expanding. Districts need someone in their district or consulting with their district (e.g., ISD) who has time devoted to continuing education specifically in the area of reading, and/or writing.

Formative Assessment for Michigan Educators (FAME)

FAME is a professional learning initiative sponsored by the Michigan Department of Education (MDE) that promotes teacher collaboration and planning for effective formative assessment practice. A cadre of Michigan educators serves as coaches for site-based learning teams of teachers and administrators in Michigan schools.

Learn more at www.FAMEMichigan.org.

National Center on Intensive Intervention (NCII)

The NCII provides an independent evaluation of the reliability, validity, and fairness (i.e., bias) for many commercial screening (initial) and progress monitoring assessment tools. Their six [Tools Charts](#) assist educators and families in becoming informed consumers who can select academic and behavioral assessment tools and interventions that meet standards for technical rigor and address their specific needs.

Learn more and explore the resources at <https://intensiveintervention.org>.

The Standards for Educational and Psychological Testing (AERA/APA/NCME)

This complete set of professional standards for assessment should be met in the design, development, implementation, use, reporting, and analyses of assessments used for all purposes. They are a product of the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education. They have been published collaboratively since 1966 and represent the gold standard in guidance on testing in the United States and in many other countries.

Available for purchase online at <https://www.apa.org/science/programs/testing/standards>.

Understanding Screening: What Do the Technical Standards Mean? (NCII, 2019)

The National Center for Intensive Intervention (NCII) offers five one-page documents that provide a brief overview of each standard (validity, reliability, classification accuracy, statistical bias, and sample representativeness) used on the [NCII Screening Tools Charts](#). The one-pagers include a definition, examples, and information on why each particular standard is important for understanding the quality of screening tools.

Available at <https://intensiveintervention.org/resource/screening-standards-overviews>.

Using Student Achievement Data to Support Instructional Decision Making (IES Practice Guide/What Works Clearinghouse, 2009)

This resource is designed to help schools understand the role of assessment in instructional improvement.

Available at https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/dddm_pg_092909.pdf.

Find all Tools and Resources at www.MichiganAssessmentConsortium.org/ELAS.

[illegible]

Formative Assessment Process: Assessment for Learning

The Michigan Department of Education has noted the importance of the formative assessment process in teaching and learning and has adopted the following definition developed by the Council of Chief State School Officers (CCSSO).

“Formative assessment is a planned, ongoing process used by all students and teachers during learning and teaching to elicit and use evidence of student learning to improve student understanding of intended disciplinary learning outcomes and support students to become more self-directed learners.”

(CCSSO FAST SCASS, 2017)

Effective use of the formative assessment process requires students and teachers to integrate and embed the following practices in a collaborative and respectful classroom environment:

- Clarifying learning goals and success criteria within a broader progression of learning;
- Eliciting and analyzing evidence of student thinking;
- Engaging students in self-assessment and peer feedback;
- Providing actionable feedback to students; and
- Using evidence and feedback to move learning forward by adjusting learning strategies, goals or next instructional steps.

Table III.4.3 shows Sadler’s three questions as well as the components and elements of formative assessment used in Michigan’s Formative Assessment for Michigan Educators (FAME) professional learning program which helps educators learn about, learn to use, and reflect and improve their use of the formative assessment process (Sadler, 1989).

The formative assessment process, often referred to as assessment for learning, is “...embedded in the ongoing flow of activity and interactions in the classroom”

(Heritage, 2019)

■ TABLE III.4.3

Michigan Formative Assessment for Michigan Educators (FAME)
Components and Elements

Guiding Questions	FAME Components and Elements
<i>Where are we (teacher and students) going?</i>	<p>Planning</p> <p>1.1—Instructional Planning: planning based on knowledge of the content, standards, pedagogy, formative assessment process, and students.</p> <p>Learning Target Use</p> <p>2.1—Designing Learning Targets: the use and communication of daily instructional aims with the students</p> <p>2.2—Learning Progressions: connection of the learning target to past and future learning</p> <p>2.3—Models of Proficient Achievement: examples of successful work for students to use as a guide.</p>
<i>What does the student understand now?</i>	<p>Eliciting Evidence of Student Understanding</p> <p>3.1—Activating Prior Knowledge: the opportunity for students to self-assess or connect new ideas to their prior knowledge</p> <p>3.2—Gathering Evidence of Student Understanding: use of a variety of tools and strategies to gather information about student thinking and understanding regarding the learning targets from <i>all</i> students</p> <p>3.3—Teacher Questioning Strategies: the intentional use of questions for students to explain their thinking or to connect their idea to another student's response</p> <p>3.4—Skillful Use of Questions: a focus on the purpose, timing, and audience for questions to deliver content and to check students' understanding</p>
<i>How do we (teacher and students) get to the learning target?</i>	<p>Formative Feedback</p> <p>4.1—Feedback from the Teacher: verbal or written feedback to a student to improve his or her achievement of the learning target</p> <p>4.2—Feedback from Peers: feedback from one student to another student about his or her learning in relation to a learning target</p> <p>4.3—Student Self-Assessment: the process in which students gather information and reflect on their own learning in relation to the learning goal.</p> <p>Instructional and Learning Decisions</p> <p>5.1—Adjustments to Teaching: teachers' daily decisions about changes to instruction</p> <p>5.2—Adjustments to Learning: students' use of feedback for improvement.</p>

Attachments

Attachments A and B illustrate the application of the formative assessment process by the teacher with the students in the second-grade classroom depicted in the **Portraits**.

Attachment A is the planning template that the teacher completed before teaching the lesson. It provides information on how the teacher planned the lesson, when the formative assessment process elements would be applied, and how the teacher planned to collect information on student understanding during the lesson so as to move instruction and student learning forward.

Attachment B shows how the formative assessment process was implemented in the lesson. It indicates when both the FAME components and elements and the *Essential Instructional Practices in Early Literacy: Grades K to 3* (MAISA/GELN/ELTF, 2016) were used during the lesson illustrated in the vignette.



Attachment A: Formative Assessment Planning Template



Feedback Planning

DATE

What am I teaching? [State Standard(s)]

RL.2.3. Describe how characters in a story respond to major events and challenges.
 SL.2.1b. Build on others' talk in conversations by linking their comments to the remarks of others.
 SL.2.1c. Ask for clarification and further explanation as needed about the topics and texts under discussion.

How can I make this clear to students? [Student-Friendly Learning Target(s)]

RL.2.3

Use evidence from the text to prove what I know about my character.

Provide a brief description of how students know that they've met the learning targets.

Using evidence from the text, students will list on three sticky notes what they already know about their character. The first sticky note will be labeled Always (3 or more items), the second Sometimes 2 or more items) and the third OMG (1-2 items). I will model this for students

How will I know if they understand the learning target? (Mode of Assessment & Student Evidence)

- ☒ Product
 - ☒ Conference
 - ☒ Observation
- (Check all that apply.)

What strategies will be used to gather evidence of student understanding?

I will use self- assessment and goal setting through the use of conferring and student reading bookmarks. I'll use activating prior knowledge through strategic questioning and student turn and talks.

How will I teach students? (Instruction)

I will start with activating prior knowledge of common text. I'll model the new learning target with lots of student input.

What curricular resources will I need?

Common text for whole class model; sticky notes for my model to display on doc camera; reading goal bookmarks; book club books

How will they practice before the assessment?

During my whole class model, students will turn and talk with a partner and add ideas to our sticky notes. They will also check in with their book club partners and share two things they all know about their character that will go on their own sticky notes

How much time should I plan for instruction and practice?

Whole class with embedded practice: 15 min
 Individual work time: 20 minutes
 Small group book clubs: 15 minutes

Attachment A (side 2)



Feedback Planning

How will I involve my students in the process of assessment? (Formative Strategy)

☒ Self-Assessment
 ☒ Activate Prior Knowledge
 ☒ Goal Setting
 ☐ Peer Assessment

What tool(s) will I use?

Student book marks, sticky notes, observation

What feedback will I give as students are learning and being assessed?

☒ Verbal
 ☐ Written

When will students have the opportunity to use the feedback?

They will use the feedback right after the conferring time. Also, they can use feedback from their book club peers right in the moment.

Possible Misconceptions:

Students might describe their character's physical appearance rather than their actions.
Students might summarize the whole story instead of focusing on specific character actions.

How might I begin thinking about instructional revisions?

Idea #1

After my first whole group demonstration, I will invite "confused" students to stay and work with me until they are ready to work independently.

Idea #2

I will point out and model in my demonstration model that it is about focusing on specific character actions. Then, during individual and small group time, I'll invite students with correct models to share their work and thinking with students needing more assistance.

Idea #3

I'll use the bookmark tool at the conclusion of the lesson along with the sticky note to gather evidence of student understanding. Then, I'll use that to inform and adjust my teaching.

Attachment B: FAME Formative Assessment Process Applied in the Grade 2 Portrait

What follows is a sample vignette showing the formative assessment process in a second-grade classroom. The left column addresses the Formative Assessment for Michigan Educators (FAME) Components and Elements of the lesson, and the right column addresses the relevant “essential instructional practice” developed by the Michigan Association of Intermediate School Administrators (MAISA) General Education Leadership Network (GELN) Early Literacy Task Force (ELTF). Michigan K-3 educators are charged with using these *Essential Instructional Practices in Early Literacy: Grades K to 3* (MAISA/GELN/ELTF, 2016) and are supported in their use by a program of professional learning.

In the vignette, the teacher engages in instruction that aligns with the formative assessment process as well as the *Essential Instructional Practices in Early Literacy: Grades K to 3* (MAISA/GELN/ELTF, 2016). In particular, during this lesson, the teacher engages in ongoing assessment and observation of children’s literacy development that informs their education (Essential 9). The teacher is attentive to goal setting and other approaches to foster children’s literacy motivation and engagement (Essential 1). In addition, during this lesson, the teacher engages students in a read-aloud (Essential 2), and the teacher provides small-group and individual literacy instruction (Essential 3). It is also clear that there are abundant reading opportunities for children in the classroom (Essential 8).

KEY

E= Essential

B= bullet list item

Grade 2 Formative Assessment Process Vignette

Fame Components & Elements	Narrative	Literacy Essentials Practices
	It is mid-January and the second-grade team in Mr. Ahmed’s school is teaching a reading unit that makes use of book clubs.	
1.1 3.2 4.1	<p>Planning</p> <p>Along with the posted learning target from the lesson, Mr. Ahmed also considers the foundational reading skills his second-grade students are acquiring and how he can support these on a minute-to-minute instructional basis. While these skills may not live in the posted learning target, Mr. Ahmed is constantly observing and eliciting evidence of these skills in his data binder and in the students’ reading-goal bookmarks. Additionally, Mr. Ahmed offers in-the-minute actionable feedback for his students in the teaching and learning cycle</p>	E3; B2 E9; B4

Fame Components & Elements	Narrative	Literacy Essentials Practices									
1.1	<p>As Mr. Ahmed plans his upcoming lesson and considers his students' needs, he makes decisions for both his direct instruction and small-group book clubs. The main comprehension focus in this lesson is for all students to use their growing knowledge of how characters act and how these actions influence the plot of the story. A common text has served as the model for his direct instruction time.</p> <p>This lesson has three main segments:</p> <ul style="list-style-type: none"> • Whole group instruction with a common class text • Independent reading and work time using book club books matched to students' reading skill and interest • Small-group time with book club peers 										
1.1 3.1 3.2 3.3 3.4	<p>Whole Group Instruction: The students are gathered and are seated close to their book club group members. Each student has their book club text and a pencil.</p> <p>Using the whole group common text, visible to all students, Mr. Ahmed activates prior knowledge by reviewing what students already know about the main character. This allows him to briefly revisit and assess former learning targets. Following his read-aloud of the text, Mr. Ahmed uses questioning strategies to encourage students to explain their thinking and to reinforce student-self directedness. As Mr. Ahmed listens in on partner conversations, he is able to gather evidence of students' understanding of the previous learning progressions.</p>	E2; B1									
2.1 2.2	<p>Learning Progressions</p> <table border="1" data-bbox="256 1178 1179 1917"> <thead> <tr> <th data-bbox="256 1178 509 1234">Building Block</th><th data-bbox="509 1178 764 1234">Learning Target</th><th data-bbox="764 1178 1179 1234">Success Criteria</th></tr> </thead> <tbody> <tr> <td data-bbox="256 1234 509 1524"> Last Week Readers think about how a series flows; seeing patterns and predicting what will happen. </td><td data-bbox="509 1234 764 1524"> By reading and studying patterns, I can explain how these books fit together in a series. </td><td data-bbox="764 1234 1179 1524"> With my book club, I can share at least 3 ideas from my jot notes to help explain how these books are similar. </td></tr> <tr> <td data-bbox="256 1524 509 1917"> Today's Lesson Readers expand their ideas and understanding of their main character in a series. </td><td data-bbox="509 1524 764 1917"> Use evidence from the text to prove what I know about my character. Then, share and learn more about this with my book club group. </td><td data-bbox="764 1524 1179 1917"> I can use sticky notes labeled "Always," "Sometimes," and "Oh my goodness! (OMG)" to show my understanding of my character 3 or more items for Always 2 or more items for Sometimes 1 or more item for OMG </td></tr> </tbody> </table>	Building Block	Learning Target	Success Criteria	Last Week Readers think about how a series flows; seeing patterns and predicting what will happen.	By reading and studying patterns, I can explain how these books fit together in a series.	With my book club, I can share at least 3 ideas from my jot notes to help explain how these books are similar.	Today's Lesson Readers expand their ideas and understanding of their main character in a series.	Use evidence from the text to prove what I know about my character. Then, share and learn more about this with my book club group.	I can use sticky notes labeled "Always," "Sometimes," and "Oh my goodness! (OMG)" to show my understanding of my character 3 or more items for Always 2 or more items for Sometimes 1 or more item for OMG	
Building Block	Learning Target	Success Criteria									
Last Week Readers think about how a series flows; seeing patterns and predicting what will happen.	By reading and studying patterns, I can explain how these books fit together in a series.	With my book club, I can share at least 3 ideas from my jot notes to help explain how these books are similar.									
Today's Lesson Readers expand their ideas and understanding of their main character in a series.	Use evidence from the text to prove what I know about my character. Then, share and learn more about this with my book club group.	I can use sticky notes labeled "Always," "Sometimes," and "Oh my goodness! (OMG)" to show my understanding of my character 3 or more items for Always 2 or more items for Sometimes 1 or more item for OMG									

Fame Components & Elements	Narrative	Literacy Essentials Practices
3.3 3.4	<p>“What are three things you know about the main character, and what is your evidence from our text?” Mr. Ahmed listens in to partner responses and then shares a few themes with the whole group.</p> <p>“Sara and Cassie realized...”</p> <p>“Emma and Sam thought about...”</p> <p>“A question I heard a few of you asking...”</p>	E9; B1 E2; B4
2.1	<p>Mr. Ahmed then introduces today’s learning target. “Today, in your individual reading and then later in your book clubs, the focus will be on what you already know about your characters, and on showing your evidence from the text for that knowing.”</p> <p>The target is posted on the screen. Mr. Ahmed reads the target out loud to the students.</p> <p>“Target: Use evidence from the text to prove what I know about my character. Then, share and learn more about this with my book club group.</p> <p>Success Criteria: I can use sticky notes labeled “Always,” “Sometimes,” and “Oh my goodness! (OMG)” to show my understanding of my character</p> <p>3 or more items for Always</p> <p>2 or more items for Sometimes</p> <p>1 or more item for OMG</p>	E1; B5

Fame Components & Elements	Narrative	Literacy Essentials Practices
<p>2.3</p> <p>2.1</p> <p>3.3</p> <p>4.1</p> <p>4.2</p>	<p>Mr. Ahmed uses the class common text to model a “think-aloud” of what this looks like. He ensures all students can see and read his sticky notes by placing them on the document camera.</p> <p>Included in his think-aloud is the “why”: “Why is it important for readers to know about characters?” Mr. Ahmed also reinforces what proficient achievement looks like by listing three items on the Always sticky note, two items on the Sometimes sticky note, and one item on the OMG sticky note. To engage participation and practice during this model, he has students turn and talk about items that might go on the sticky notes. He uses some of their ideas for his own models.</p> <p>“Please think to yourself about your own character. What do you already know that you want to add to the Always sticky note?” 30-second pause. “Now, please turn to your book club friends and each share just one item you’ll add to your Always sticky note.”</p> <p>Mr. Ahmed again shares the whole group target and checks for clarity.</p> <p>“Please turn and talk to your partner about what you understand about the target and also what questions you or your partner might have about the target.”</p> <p>Mr. Ahmed listens in to the student talk and jots a few notes to address with the whole class. He then briefly offers feedback to clarify the target. Mr. Ahmed also takes a few notes about which students he’ll want to check in with first, based on their confusion/understanding.</p> <p>Example: “Emma and her partner want to review what ‘evidence from the text’ means, while a few other partnerships are curious about what they will do with their three sticky notes.”</p>	<p>E2; B2</p> <p>E2; B5</p>
<p>5.1</p> <p>2.1</p> <p>4.2</p>	<p>Mr. Ahmed adjusts his teaching to provide support about the sticky notes.</p> <p>With the whole class, he reviews the success criteria regarding how the sticky notes will be composed and organized while addressing the needs of students needing a bit more support.</p> <p>Again, communication and interaction with the learning target continues.</p> <p>“Please check in with your book club group and answer this question: ‘How will we know we have met the learning target?’”</p>	

Fame Components & Elements	Narrative	Literacy Essentials Practices										
3.2 4.3	<p>“As you add today’s target to your bookmark, I’ll check in with each group.”</p> <p>The students then take their reading-goal bookmarks out of their book club text and add today’s learning target to their book club goals as Mr. Ahmed visits each group. These bookmarks help students to self-assess while providing evidence of their understanding. (Mr. Ahmed differentiates his assistance by pre-filling some elements of the bookmark for specific students.)</p> <p>Ayesha’s Reading-Goal Bookmark</p> <table><tr><th>Date</th><th>My Reading Goal</th><th>Self-Assessment Reflection</th><th>Book Club Target</th><th>Self-Assessment Reflection</th></tr><tr><td>1-15-19</td><td>Notice linking words and add them to my word list</td><td>Copied the words also and together and used them in my story</td><td>Use evidence from the text to prove what I know about my character. Then, share and learn more about this with my book club group</td><td></td></tr></table>	Date	My Reading Goal	Self-Assessment Reflection	Book Club Target	Self-Assessment Reflection	1-15-19	Notice linking words and add them to my word list	Copied the words also and together and used them in my story	Use evidence from the text to prove what I know about my character. Then, share and learn more about this with my book club group		E3; B4
Date	My Reading Goal	Self-Assessment Reflection	Book Club Target	Self-Assessment Reflection								
1-15-19	Notice linking words and add them to my word list	Copied the words also and together and used them in my story	Use evidence from the text to prove what I know about my character. Then, share and learn more about this with my book club group									
5.1 3.2	<p>Mr. Ahmed continues to adjust his teaching by including additional support and gathering evidence of what students already understand. “For those of you wanting to review what ‘evidence from the text’ is all about, please remain here for a few minutes.” He directs a student to get the group started. “Ayesha, will you please record on this chart what this group already knows about using evidence from the text? I’ll check back with you in a few minutes.” Once the rest of the class has begun their reading, Mr. Ahmed returns to work with this group.</p>	E3; B4										

Fame Components & Elements	Narrative	Literacy Essentials Practices
3.2 4.1 5.2	<p>Individual Learning Time</p> <p>Students read for fifteen minutes and then work on the learning target as they jot on their sticky notes. Students are grouped near their book clubs during this time.</p> <p>Mr. Ahmed confers with students on both book club and individual reading goals. He names what he notices the students doing, asks questions, and gives actionable feedback. He ensures students use the feedback to adjust their own learning. He also encourages collaboration amongst students:</p> <ul style="list-style-type: none"> • How did you know to do that? • Look, you've used a word-wall word. Where might you look to make sure it's spelled correctly? • Oh, please check in with Brian. He had the same question. • So, next time, you can try... • How will you know you've...? 	E1; B2 E1; B3 E2; B4 E3; B2 E9; B2
4.2 4.1	<p>Small-Group Book Clubs</p> <p>Mr. Ahmed invites students to meet with book clubs and share what they are learning. The sticky notes are used to help focus their conversations. Students know they are to "read their evidence from the text" out loud during their book club time. This helps to practice reading fluency. In previous lessons, students have learned how to have substantive conversations and offer peer feedback. Sentence and question stems and samples are posted in all the book club meeting areas.</p> <ul style="list-style-type: none"> • How did you figure...? • Thank you for sharing... • Could you please say more? • As you think about today's target... • Here is another idea... <p>Mr. Ahmed visits the small groups, listening in and offering instruction and feedback as needed.</p>	E1; B3 E3, B2 E3; B3 E3; B4 E9; B2
1.1	<p>During the initial planning for this unit, Mr. Ahmed organized the small-group book clubs based on students' interest and instructional needs.</p> <p>Malcolm's group of four includes more advanced readers. Each student is reading a different book from the same, advanced series.</p> <p>Emma's three group members have copies of the same book. It is from the same series as the common class text. The students in this group have a specific goal of noticing and recording linking words.</p> <p>Cassie's three group members have copies of the same book. It is also from the same series as the common class text. Two of the group members are Spanish speakers.</p>	E1; B1 E1; B2 E8; B2

Fame Components & Elements	Narrative	Literacy Essentials Practices										
3.2 4.3 4.2	<p>Mr. Ahmed concludes this lesson by having the students stand in an inside-outside circle and, with a partner, share their answers to these three questions.</p> <p>1. What do I know now about today's learning target?</p> <p>2. What question do I still have about the learning target?</p> <p>3. What feedback can you offer your partner?</p> <p>Again, this serves as a time for the teacher to gather evidence of student understanding while allowing the students to self-assess their learning and offer peer feedback.</p>	E1; B3 E9; B4										
3.2	<p>Mr. Ahmed collects the bookmarks from the students. Because he has been listening in and conferring throughout the independent and small-group time, he has offered feedback to many students and already has solid knowledge of what students know and what may be confusing them. He will continue to use the evidenced gathered on the bookmarks to record evidence of understanding.</p>	E9; B1										
	<p>Emma's Reading-Goal Bookmark</p> <table><tr><th>Date</th><th>My Reading Goal</th><th>Self-Assessment Reflection</th><th>Book Club Target</th><th>Self-Assessment Reflection</th></tr><tr><td>1-15-19</td><td>Notice linking words and add them to my word list</td><td>Copied the words also and together and used them in my story</td><td>Use evidence from the text to prove what I know about my character. Then, share and learn more about this with my book club group.</td><td>I know that Clara was sad, and I read page 5 where she sits on the ground and cries. I used all my stickies.</td></tr></table>	Date	My Reading Goal	Self-Assessment Reflection	Book Club Target	Self-Assessment Reflection	1-15-19	Notice linking words and add them to my word list	Copied the words also and together and used them in my story	Use evidence from the text to prove what I know about my character. Then, share and learn more about this with my book club group.	I know that Clara was sad, and I read page 5 where she sits on the ground and cries. I used all my stickies.	
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5.1 1.1	<p>As Mr. Ahmed plans for tomorrow's lesson, the bookmarks will be used as a tool to adjust his teaching decisions for tomorrow.</p> <p>In this daily, minute-to-minute formative assessment process, Mr. Ahmed is continually making changes to instruction in order to support his students' needs.</p>											

Notes

SECTION III-5

PROFESSIONAL LEARNING PROGRAMS: Features that support stakeholder groups in implementing and using an ELAS

*This chapter includes the research and science that supports Principle #5 and related recommendations. It also offers a sampling of resources that schools and districts might find helpful as they support those who will be implementing and using the early literacy assessment system (ELAS), including district administrators, principals, teachers, policymakers, and students and their families. The content provides some of the relevant explanation and backing for **Principle #5** and associated **Phase III Supporting and Monitoring Recommendations**.*

Phase III RECOMMENDATIONS (Principle #5)

Principle #5: The ELAS must be supported and monitored by a sustained program of collaborative, inquiry-based PROFESSIONAL LEARNING and FEEDBACK.

3.1: The **ELAS LEADERSHIP TEAM** should use the logic model and theory of action to develop plans for professional learning and formative evaluation of the ELAS.

To accomplish Recommendation 3.1, the **ELAS LEADERSHIP TEAM**, in collaboration with **PRINCIPALS AND TEACHERS**, should:

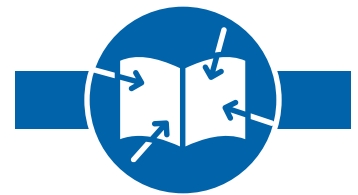
3.2: Gather information about the current level of knowledge and capacity related to literacy, assessment, and professional learning (strengths and gaps) among staff (teachers, administrators, coaches), students and their families, and local policymakers, and use these data to guide the implementation and support of an ELAS.

3.3: Create a cohesive master professional learning plan (aligned to Michigan's *Professional Learning Policy* and associated *Standards for Professional Learning*) to support all stakeholders responsible for early literacy development and assessment. The plan should address early literacy development and assessment and meet the learning needs of children and instructional needs of teachers based on evidence of need as well as research.

3.4: Budget for and plan to provide substantive resources and support for content-focused professional learning about early literacy development and assessment that is collaborative, intensive, sustained, and job-embedded.

3.5: Participate in statewide efforts to prepare, support, and generate teacher leaders and instructional coaches to promote effective early literacy development and assessment practices, with an emphasis on the use of classroom formative assessment practices.

3.6: Develop a plan for formative evaluation of the ELAS that includes ongoing monitoring and feedback from the field about the quality, utility, and effectiveness of the assessment system as it is implemented and becomes operational.



Introduction

A primary and powerful lever for bolstering educators' successful implementation of the recommended early literacy assessment system (ELAS) is a sustained program of collaborative, inquiry-based professional learning that is adequately supported and monitored. Collaborative inquiry provides educators with the necessary structure and processes to refine and adapt their professional knowledge and practices to effectively use assessment information to inform decisions about student literacy needs and to achieve measurable student results (Colton, Langer, & Goff, 2015; Jensen Sonnemann, Roberts-Hull & Hunter, 2016; Timperley, & Halbert, 2014). Engagement in inquiry builds educators' capacity to diagnose, adapt, and solve daily challenges they face in their work. When such professional learning is planned, implemented, and evaluated effectively, it also is an essential strategy for advancing equity. Educators engaged in inquiry not only deepen their content knowledge and pedagogy, but also increase their understanding of students' culture, language, and background—and their impact on assessment—and how to use assessment information to guide their future actions.

Educators, however, are not the only stakeholder group who could benefit from a thoughtful approach to professional learning. Students and their families also play an active role in assessment and can benefit from the information (data) that derives from assessment. Policymakers at the local, regional, and state levels also influence assessment policies and resource allocation, and they use assessment data to inform their decisions. Consequently, it's important to include them in any review of the district's current knowledge and capacity regarding assessment tools and practices and the appropriate use of assessment data.

This review of the district's human capacity regarding literacy development and assessment tools and practices is not meant to be exhaustive, nor should it resemble either an evaluation or a simple checklist. Rather it is about developing shared understanding about where the district has assets and where growth will be needed in order to accomplish the goal of implementing and supporting an effective ELAS.

District leaders need to know where various groups of people are starting on the ELAS journey. Through surveys, anecdotes, and dialogue, they can discover what foundational knowledge, skills, and dispositions the learning community brings to this effort and where it will need additional guidance.

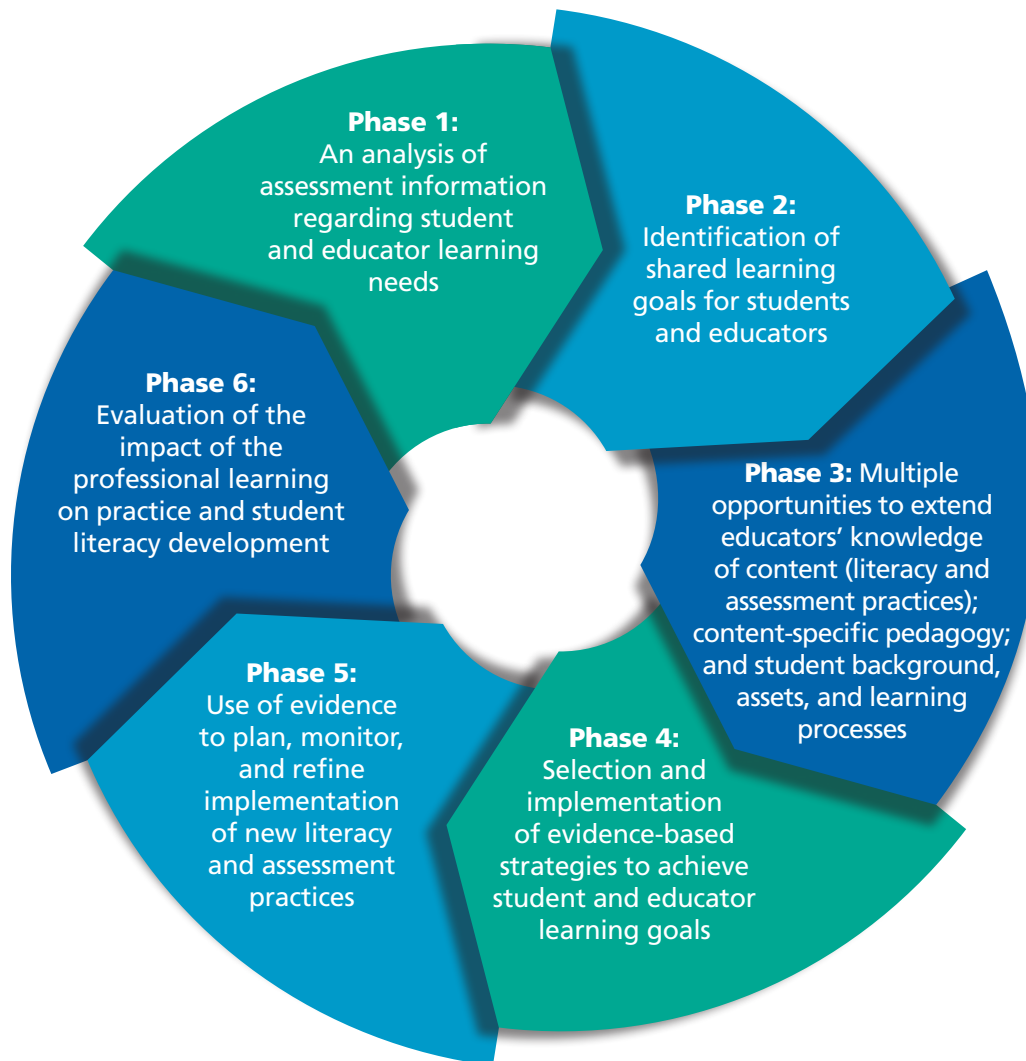
Six phases of collaborative inquiry

The collaborative inquiry cycle is a systematic and recursive process for educators, as learners, to explore issues or wonderings about their practice and the literacy learning of those they teach or lead (principle/teacher, teacher/student, etc.). The process enables learners to determine evidence-based resolutions through dialogue, analysis of assessment, new learning, experimentation and reflection. Their inquiry is driven by the system's vision of assessment and literacy practice. The inquiry process aligns with assessment literacies—the knowledge, skills, and dispositions needed by educators to effectively use assessment tools and practices and create assessment systems that support their students' literacy development.

This continuous improvement approach to professional learning meets educators' learning needs while simultaneously cultivating a culture of collective responsibility for student success. The continuous application of collaborative inquiry cycles aligns educators' learning with student needs and expected literacy learning outcomes and standards.

Collaborative inquiry consists of six phases, each of which informs the next phase or raises questions that require going back to an earlier phase.

"Collaborative inquiry consists of six phases, each of which informs the next phase or raises questions that require going back to an earlier phase."



● **FIGURE III.5.1**
Collaborative inquiry consists of six phases.



An online learning module from the Michigan Assessment Consortium (MAC) entitled "Collaborative Inquiry" provides an overview of the collaborative inquiry process and how it ties to the Michigan Assessment Literacy Standards (see *Resources & Tools* at the end of this chapter).

Six driving assumptions of collaborative inquiry

Collaborative inquiry as a powerful approach to professional learning for addressing early literacy development and assessment rests on **six driving assumptions**:

1. Professional learning is an active process.
2. Professional learning allows for educator agency.
3. Professional learning is relevant and content specific.
4. Professional learning is best situated in cultures of collaboration.
5. Professional learning is sustained.
6. Professional learning requires organizational systems and structures of support.

Each assumption is described in detail in the following text.

“Transformative learning is particularly critical in contexts where educators are supporting literacy learning of students whose cultural backgrounds, language, or gender identity are different from those of the educators. Since this kind of dissonance rarely occurs in the normal course of an educator’s day, educators need to engage in learning designs that intentionally interrupt their current ways of viewing their practice and student learning. Collaborative inquiry is such an intervention.”

Assumption 1: Professional learning is an active process

Learning is the process through which experience causes a permanent change in knowledge and behavior (Woolfolk, Winne, & Perry, 2012). *“Learning is constructed through a process of engagement, analysis and reflection...”* (Killion, 2019, p. 5). *“For lasting changes in behavior to occur, beliefs and assumptions must be brought to consciousness and the deep structures supporting behaviors must be addressed”* (Guerra & Nelson, 2009). Such transformative learning only happens when individuals experience dissonance between the beliefs they hold and what they are experiencing (Mezirow, 1995). Transformative learning is particularly critical in contexts where educators are supporting literacy learning of students whose cultural backgrounds, language, or gender identity are different from those of the educators. Since this kind of dissonance rarely occurs in the normal course of an educator’s day, educators need to engage in learning designs that intentionally interrupt their current ways of viewing their practice and student learning. Collaborative inquiry is such an intervention.

Collaborative inquiry integrates multiple active learning designs that assist the adult learner in *“moving beyond comprehension of the surface features of a new idea or [literacy or assessment] practice to developing a more complete understanding of its purposes, critical attributes, meaning, and connection to other approaches”* (Learning Forward, 2011). Darling-Hammond, Hyler, & Gardner (2017, p. 7) consider active learning an *“umbrella element that often incorporates the elements of collaboration, coaching, feedback, and reflection, and the use of models and modeling.”* Providing time for practice is also key to the implementation of new practices.

Assumption 2: Professional learning allows for educator agency

Agency, or ownership, enables educators to drive the focus of their learning, the ways in which learning occurs, and how they evaluate the impact of their learning (Learning Forward, 2011). Agency requires clarity of purpose about expectations and a method for measuring progress toward those expectations. This is why it is important to monitor and assess the success of teachers and administrators in acquiring and applying literacy assessment practices. Agency empowers and intrinsically motivates educators to pursue continuous improvement and support colleagues. Educators are in the driver’s seat when engaged in collaborative inquiry around literacy and assessment knowledge and practice.

Assumption 3: Professional learning is relevant and content-specific

When educators engage in professional learning that is guided by specific student learning needs, is content-specific, and involves cycles of inquiry into educators’ problems of practice, substantial positive influences on teachers’ practice and student achievement result. (Desimone, Porter, Garet, Yoon, & Birman, 2002; Garet, Porter, Desimone, Birman & Yoon, 2001; Jensen et al., 2016; Yoon, Duncan, Lee, Scarloss & Shapley, 2007). The most effective professional learning for educators occurs when the focus is on the concrete, everyday challenges involved in the teaching and learning of *specific* curriculum content (e.g., literacy development, pedagogy, and assessment literacy). This makes the learning relevant to the learner. Halbert & Kaser (2016) write *“rather than relying on generalized solutions, [inquiry] places contextual evidence*

and analysis at the center of focused change efforts” (p. 11). Scanlon, Gelzheiser, Vellutino, Schatschneider, & Sweeny, (2008) found that teachers who received professional learning focused on specific literacy content, tools, and instructional strategies significantly increased their effectiveness and improved performance levels of students’ literacy. This approach to professional learning is in stark contrast to a focus on general principles of teaching or generic teaching practices that are taken out of context (Aspen Institute, 2018; Darling-Hammond & McLaughlin, 1995; Darling-Hammond et al., 2017; Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009; Learning Forward, 2019). Timperley et al., (2014) describes the centrality of collaborative inquiry in the lives of educators:

“Motivation and energy build, as educators together find compelling reasons to change what they are doing, and as they take joint responsibility for doing so. As they engage in deeper forms of inquiry, the process becomes central to their professional lives. They will not, in fact they cannot, go back to earlier, unquestioning ways of doing things” (p. 6).

Assumption 4: Professional learning is best situated in cultures of collaboration

According to DuFour & Matton (2013) and Darling-Hammond et.al. (2009), “the most productive environments seem to be those in which [educators] regularly interact and engage in positive and productive collegial conversations around meaningful and relevant issues (as cited in Colton et al., 2015, p. 49). Love, Stiles, Mundry, & DiRanna, (2008) add that “dialogue is a central process of the [inquiry cycle] because it invites multiple interpretations, helps teachers examine limiting assumptions, and unleashes teachers’ creativity and expertise” (as cited in Colton et al., 2015). Effective communication becomes possible through intentional facilitation. Collaboration, however, does not happen automatically. It involves developing working agreements and communication skills. Teacher leaders often serve in this role. They ensure that working agreements are followed and that teachers develop the communication and analytical skills they need to stay focused while studying their practice and student learning.

As educators work together to solve problems of practice around literacy, they draw on the diverse understanding and expertise of group members and others within and outside of the district. Collaborative learning holds everyone accountable and builds collective responsibility for the literacy success of every student and educator within and across schools. This is especially possible when leaders learn side by side with their staff. The distribution of knowledge and skills also results in collective efficacy. Collective efficacy is defined as “shared belief in [the group’s] conjoint capabilities to organize and execute courses of action required to produce given levels of attainment” (Bandura, 1977). Rachel Eells’ (2011) meta-analysis of studies related to collective efficacy and achievement in education demonstrate that the beliefs teachers hold about the ability of the school as a whole are positively associated with student achievement across subject areas. On the basis of Eells’ research, John Hattie (2016) positioned collective efficacy at the top of the list of factors that influence student achievement.

“As educators work together to solve problems of practice around literacy, they draw on the diverse understanding and expertise of group members and others within and outside of the district. Collaborative learning holds everyone accountable and builds collective responsibility for the literacy success of every student and educator within and across schools.”

“It could take upwards of 50 hours of intensive professional learning to realize results for students (Learning Forward, 2011). This is why it is important to engage educators in continuous cycles of inquiry.”



Joellen Killion's workbook, *Establishing Time for Professional Learning* (2013), “guides districts and schools as they develop, vet, and implement recommendations for increasing collaborative learning time for educators, and then evaluate the effectiveness of the change” (p. 10). A second workbook, *Professional Learning Policy Review: A Workbook for States and Districts* (Killion, 2013), provides states and districts with guidance to conduct a review of existing policies related to professional learning. Killion & Hirsh (2012) discuss how districts can analyze their investments in professional learning.

Assumption 5: Professional learning is sustained

Just as it takes time for students to learn complex curriculum, educators need time to acquire new knowledge, skills, dispositions, and behavior to effectively use assessment tools and practices that support their students' literacy development. Educators need time to learn, practice, be coached, analyze, and reflect on the results; have someone help them to understand the ideas more deeply; and then try it again, repeating as necessary. Research indicates that the intensity and duration of professional learning is related to the degree of teacher change (Desimone et al., 2002). The exact length of time to support teacher and student achievement has not been defined. It could take upwards of 50 hours of intensive professional learning to realize results for students (Learning Forward, 2011). This is why it is important to engage educators in continuous cycles of inquiry. It should be noted that *“the effectiveness and importance of duration is dependent upon the quality, design and focus of the content and activities that comprise the professional learning effort”* (Swayer & Stuke, 2019). Collaborative inquiry provides the necessary structures and processes for sustaining educators' learning around assessment use and literacy development.

Assumption 6: Professional learning requires organizational systems and structures of support

It is impossible to reap the full benefit of collaborative inquiry without organizational systems and structures to support effective professional learning for continuous improvement. Leaders across the school district need to operate as a team to plan, implement, and manage a professional learning system with measures for success. Thus, the team needs to clarify expectations and goals regarding literacy and assessment knowledge, skills and practices and professional learning. In so doing, they communicate that there is an important link between professional and student learning.

Professional learning requires substantive support and resources to achieve its goals as stated in **Recommendation 3.4:** *Budget for and plan to provide substantive resources and support for content-focused professional learning about early literacy development and assessment that is collaborative, intensive, sustained, and job-embedded.*

A district's leadership team needs to increase the staff's capacity to engage collaboratively; provide adequate time for collaborative team learning; and establish ongoing support for implementation of new practice in the classroom (Jensen, 2016; Learning Forward, 2011). A major challenge to collaborative inquiry identified by educators is time. The district's school board needs to adopt policies related to district calendars and school schedules that support collaborative learning during the workday.

The notable change in language from professional development to professional learning used in this Guide is intentional. It represents a shift from learning that is done **to** educators, to learning that actually *transforms* how educators think and act. *“By making learning the focus, those who are responsible for professional learning will concentrate their efforts on assuring that learning for educators leads to learning for students”* (Learning Forward, 2011, p. 13).

The vision provided of sustained, collaborative inquiry-based professional learning is captured in various forms in the following documents:

- Michigan's definition and standards for professional learning
- The Every Student Succeeds Act (ESSA) definition of professional development
- The *Essential Coaching Practices in Elementary Literacy; Essential School-Wide and Center-Wide Practices in Literacy; and Essential Instructional Practices in Early Literacy: Grades K-3* (MAISA/GELN/ELTF, 2016)

Portrait connection

The **Portraits** in Section II of this Guide depict three teachers' intentional and effective application of shared knowledge about literacy assessment, curriculum, and instruction to effectively respond to the unique cultural and linguistic backgrounds, assets, and literacy needs of their students. Although the Portraits don't explicitly describe the professional learning the teachers experienced, it is worthwhile to pause and consider the scenario described in the sidebar below of how the teachers might have developed their literacy and assessment expertise through collaborative inquiry.

A detailed account of Ms. Jones' first-grade team as they engage in each phase of the inquiry cycle to increase their skills in assessing and developing students' reading fluency is provided in the illustrative section **Collaborative Inquiry in Action** that begins on page 121. In that illustration, you'll notice that each phase of the cycle presents a guiding question that drives the continuous learning process. Questions stimulate teachers' curiosity, which is a powerful motivator for learning.

The primary goals for professional learning are changes in educator practice and increases in student learning. This is a process that occurs over time with substantive support for implementation, so educators consistently embed their new learning into practice. Full and effective implementation of new practices is possible when those responsible for professional learning follow **Recommendation 3.3:** *Create a cohesive master professional learning plan (aligned to Michigan's Professional Learning Policy and associated Standards for Professional Learning) to support all stakeholders responsible for early literacy development and assessment. The plan should address early literacy development and assessment and meet the learning needs of children and instructional needs of teachers based on evidence of need as well as research.*

ILLUSTRATIVE SCENARIO OF COLLABORATIVE INQUIRY EXPERIENCES OF PORTRAIT TEACHERS

The district leaders and community members, including families, establish early literacy as an improvement goal, clearly communicate the goal to all district educators and the community, implement essential professional learning conditions, and establish a procedure for monitoring and supporting application of assessment literacy practices. An altered calendar and school schedule are approved by the school board to provide every educator in the district time during the workday to engage in high-quality professional learning.

During the teachers' designated daily planning time they engage in facilitated and systematic cycles of inquiry into the effectiveness of practice for student engagement for literacy learning. Teacher leaders, including instructional coaches build team members' collaborative skills and support individual and team learning and the implementation of new practices in the teachers' classrooms. District leaders support, monitor, and evaluate implementation of professional learning to ensure changes in educator practices.

Conclusion

Professional learning is a strategy that *“is available to almost every educator, and—when planned and implemented [and evaluated] correctly—ensures that educators acquire the knowledge and skills necessary to help more students meet standards”* (Hirsh, 2018). Collaborative inquiry enables educators to drive the focus of their learning, the ways in which learning occurs, and how they evaluate the impact of their learning (Learning Forward, 2011). As educators engage in cycles of collaborative inquiry, they develop an inquiry stance—continuously wondering how they can make a difference for their learners’ literacy development using assessment and literacy practices.

As described by Anderson (1984), Berliner (1986), and Colton & Sparks-Langer (1993):

“Maintaining an inquiry stance allows [educators] to make judgments based on thoughtful analysis, problem solving, experimentation, and assessment. Through the inquiry process, [educators] continually transform their beliefs, improve their analytical thinking skills, and develop a rich and well-organized knowledge base that allows them to think through situations and make difficult decisions in the heat of the moment” (as cited in Colton et al., 2015, p. 33). Collaborative inquiry provides a professional learning approach with the power and a track record for permanently changing the literacy and assessment practices of teachers and leaders so they can create new solutions to complex problems to support literacy development of all students.



Professional Learning Plans: A Workbook for States, Districts, and Schools (Killion, 2013) provides educators with a step-by-step guide for completing a professional learning plan. The plan should be integrated into the logic model and the formative evaluation of the ELAS as indicated in **Recommendation 3.1:** *The ELAS LEADERSHIP TEAM should use the logic model and theory of action to develop plans for professional learning and formative evaluation of the ELAS.*

COLLABORATIVE INQUIRY IN ACTION

INTRODUCTION

This illustrative scenario of collaborative inquiry in action highlights **a team of first-grade teachers** studying their problems of practice around fluency; however, it's important to note that school and district leaders can experience equal levels of impact from such cycles of inquiry. Although leaders may not need to know as much about literacy as their teachers, the principal in the scenario chooses to learn beside the team. The principal also meets with her learning team to deepen her understanding of how to manage change so she can provide the necessary conditions to support the teachers' learning. Just as teachers have a class of students, education leaders have a class of teachers or others with whom they work.

As you read the scenario, note that each phase of the collaborative inquiry cycle involves evidence, learning, and action.

Phase 1: Analysis of assessment information to identify student and educator learning needs

What's going on for learners?

During phase 1 of the collaborative inquiry cycle, team members, with the principal, analyze data about students, educators, and systems to identify student learning needs and goals. A comprehensive analysis of data helps the team avoid exerting large amounts of energy in solving the wrong problem. *"Focusing on students' learning needs also reinforces for teachers that the primary purpose for participating in professional learning is to enhance those student outcomes that are valued by the community within which the students live and learn...Outcomes for students become the reason for teachers to engage in professional learning"* (Timperley, 2011).

It is mid-November and Ms. Jones' first-grade team meets to talk about a handful of students in each of their classrooms that has demonstrated little progress in reading fluency. Teachers have come to value the power of collective learning for addressing problems of practice. A teacher leader from the school leads the team in a comprehensive analysis of an array of student data to increase the team's comfort, competence, and confidence in analyzing the data brought to the meeting.

The teachers analyze the students' running records, noting rate data, as well as the expression with which the students have read. The teachers also share anecdotal notes taken during the students' guided reading. Members use probing questions to identify potential root causes for the students' struggles, while also making note of the students' strengths. They have learned to draw on students' assets to build additional literacy skills. As the teachers analyze the wealth of evidence in front of them, they consider whether the students are struggling with accuracy, automaticity, or prosody—all different aspects of fluency. Ultimately, the team decides their students are struggling most with prosody.