

# An Introduction to ELMS

---

# 1

*Although teachers teach children,  
materials do matter.*

We teach in an age of accountability. As educators seek ways to improve reading instruction for all children, they strive to implement evidence-based programs and techniques at all levels of instruction, recently referred to as tiers. (See, for example, [www.rti4success.org/](http://www.rti4success.org/)). In the search to implement the best practices for students who struggle (Tier 2, Tier 3), educators are rediscovering the power of everyday classroom instruction or Tier 1 as a strong antidote for reading failure. In districts, schools, and classrooms, educators are seeking answers to such questions as: What does Tier I instruction look like? What materials are used and in what way? Are the materials that teachers use guiding them *toward* or *away from* high-quality instructional practices? What many find in their search for answers is that:

1. The type and amount of materials currently being used by educators varies considerably from classroom to classroom and school to school.
2. Classroom instructional materials can range from teacher-made to professionally produced.
3. Publishing companies have labeled just about every product “research based.”
4. With limited budgets, many schools want to ensure that they are getting their money’s worth as they contemplate the purchase of new instructional materials.

## 2 • Early Literacy Materials Selector (ELMS)

Although there are probably few people who believe that materials *teach* students, many would agree that materials certainly *affect* teaching practices. Simply consider the following scenarios, and envision how instruction *might* be impacted by the quality and quantity of materials that a teacher uses:

- An urban Head Start preschool site provides each teacher with the newest comprehensive core program, which consists of a plethora of student books, big books, and high-quality literature;
- A suburban private preschool uses materials that teachers who started the school 30 years prior have created over the last couple of decades, simply passing these materials down like cherished family recipes;
- A small church-based preschool program has few resources except a handful of passed-down books, toys, and educational games;
- A rural preschool program purchased some commercially produced materials five years ago that were being promoted as “based on the latest research” and guaranteed to “promote optimum growth in all children”; however, most of the materials have been left to gather dust on the storage room shelves as teachers each pick and choose what they like the most.

Due to the lack of evidence about actual student outcomes within each of the scenarios above, we cannot judge how students might fare in each situation. Yet these examples serve to illustrate the fact that materials vary, and as a result it is likely that teaching and learning will vary. This realization about the variance in teaching material combined with the need to ensure that teachers are provided with materials and guidance that do indeed contribute to high-quality instruction has prompted the development of ELMS.

ELMS is a tool designed to assist early childhood educators and administrators in evaluating the quality and instructional guidance provided by early literacy curriculum materials and commercial programs. The ELMS tool offers a systematic approach to the review of early literacy curriculum materials based on evidence-based criteria of product quality. Its primary function is to check and critique the quality features of curriculum materials for product excellence as defined by the early literacy field. Developing an awareness of material quality is a good starting point as programs begin the process of critically analyzing tiered instruction within classrooms.

## **EARLY LITERACY MATERIALS: AREN'T THEY ALL THE SAME?**

Materials are instructional resources that support instruction in an educational setting (Corcoran & Goetz, 1995). They are the durable goods of instruction, and include such items as teacher guides, student books, picture/word cards, posters, scope and sequence charts, among others tangible resources. Like all material things, instructional materials vary in quality, with some of higher caliber than others. In the pursuit of world-class early literacy instruction for all young children, the quality of curriculum materials matters. Access to high-quality curriculum materials affords teachers rich opportunities to develop supportive learning environments for young children and to plan and implement effective early literacy instruction. Moreover, in an era when strong Tier 1—or core—instruction in reading is the foundation of an effective early intervention system, the quality of materials takes on a new sense of urgency. The skilled carpenter knows that the quality of building tools and supplies makes a difference. So it is in early literacy teaching—the quality of curriculum materials matters, helping teachers deliver high-quality instruction.

The recent explosion in the number of commercially produced and prepackaged early literacy curriculum materials coincides with the growing recognition that learning to read and write begins early in life, and that preschool literacy experiences are influential in future literacy achievement (Dickinson & Neuman, 2006; Mol & Bus, 2011; Snow et al., 1998). Children's alphabet letter knowledge (letter names and sounds) at kindergarten entry, for example, is a significant predictor of success in the learn-to-read process in the primary grades (National Early Literacy Panel [NELP], 2009).

A variety of early literacy commercial programs and prepackaged curriculum materials offer preschool teachers ready-to-use sets of materials for helping young children learn early literacy skills. Still the convenience comes with a responsibility to make the best choices about the materials to be used with emerging readers and writers. Preschool educators need to consider how the materials function, as well as the guidance provided within the curricular materials, which directs teachers in how to use the materials most effectively.

## **WHO CAN USE ELMS AND WHY**

Few tools are available today to assist early childhood educators in judging the quality of early literacy instructional materials. The ELMS tool

#### **4 • Early Literacy Materials Selector (ELMS)**

(Resource A) addresses this need. It is an easy-to-use tool that walks the reader through multiple evaluation steps and procedures designed to assist various stakeholders in completing a systematic review of core program materials and teacher guidance found within these materials.

ELMS is intended for those who design and implement early literacy programs, as well as those who are in decision-making roles about curriculum materials that are recommended for early literacy initiatives and projects, such as state education personnel, program proposal review panels, program administrators, project coordinators, and early literacy curriculum review teams. Teachers will also find the tool useful for reviewing their existing early literacy materials and in choosing new instructional resources for instruction.

#### **WHAT DOES ELMS SERVE TO ACCOMPLISH?**

ELMS is a practical tool. Its purpose, or function, is to check and critique the quality features of curriculum materials intended for use in early literacy instruction. We use the words *check* and *critique* deliberately here to indicate a process of (a) reviewing the internal qualities of a product and (b) observing its strong and weak features based on external criteria and standards grounded in a professional knowledge base.

To review the internal qualities of a program or set of curriculum materials, the ELMS tool checks the quality features of the materials contained in major categories of curricular resources, such as student materials. Users of ELMS are provided with all the tools and knowledge necessary to gather evidence of high-quality instruction in order to arrive at well-supported conclusions about the strengths and weaknesses of the early literacy materials under review.

#### **WHAT DETERMINES HIGH QUALITY?**

The goal of instructional design is to create high-quality, functional curriculum materials for purposes of instruction (Mommel, Ras, Jantke, & Yacci, 2007). The professional literature provides several sources of design criteria and standards for producing quality preschool literacy curriculum materials. Early childhood professional organizations (International Reading Association [IRA], 1998; NAEYC & NAECS/SDE, 2004), for example, regularly make recommendations related to appropriate early childhood literacy materials. The 1998 joint position statement of the International Reading Association and the National Association for the Education of Young Children set the criterion of sufficient instructional resources across several categories, including high-quality mixed-genre

children's books, writing supplies, computer software, and multimedia resources at various levels of difficulty and reflecting various cultural and family backgrounds (IRA, 1998, p. 18).

Professional books also offer guidelines for the organization and content of preschool literacy materials. The National Research Council publication, *Starting Out Right: A Guide to Promoting Children's Reading Success* (Burns, Griffin, & Snow, 1999), for instance, listed general age-related recommendations about language and literacy materials and activities birth through Grade 3, including songs, rhymes and chants, games, play center materials, theme-based activities, books for shared reading, and multimedia. Other professional textbooks offer a combination of research-based findings and practical knowledge about creating, evaluating, and choosing curricular materials (e.g., Glover, 2009; McGee, 2007; Morrow, 2005; Neuman, Roskos, Wright, & Lenhart, 2007; Roskos, Tabors, & Lenhart, 2009; Schickedanz, 1999; Vukelich & Christie, 2009). See Resource B for a glossary of terms related to early literacy curriculum.

## **WHAT ESSENTIAL AREAS OF INSTRUCTION SHOULD INSTRUCTIONAL MATERIALS INCLUDE?**

Theory and empirical research provide the foundations for identifying high-performing instructional practices found within early literacy curriculum materials. In the early literacy field, there is a growing consensus as to the body of knowledge and skills that form the basis of reading and writing ability (Dickinson & Neuman, 2006; Mol & Bus, 2011; National Reading Panel, 2000; NELP, 2009; Snow et al., 1998). To become a skilled reader, children need a rich oral language and conceptual knowledge base, a broad and deep vocabulary, and verbal reasoning abilities to understand messages that are conveyed through print.

Children also must develop code-related skills, an understanding that spoken words are composed of smaller elements of speech (phonological awareness); the idea that letters represent these sounds (the alphabetic principle), the many systematic correspondences between sounds and spellings, and a repertoire of highly familiar words that can be easily and automatically recognized (McCardle, Scarborough, & Catts, 2001). To attain a high level of skill, young children need opportunities to develop these strands, not in isolation, but interactively (IRA, 1998). Research syntheses describe early literacy content in several major skill categories that provide a foundational core for instruction (Bowman et al., 2001; Dickinson & Neuman, 2006; NELP, 2009; Rowe, 2008; Snow et al., 1998). These categories are briefly summarized in Figure 1.1.

**Figure 1.1** The Content of Early Literacy

### **Alphabet Letter Knowledge**

*Alphabet letter knowledge* includes letter name and sound knowledge, and the ability to retrieve this information quickly and accurately. Letter-name knowledge is one of the best predictors of future reading and spelling achievement not only in the primary grades, but also throughout elementary school, even into adulthood (Mol & Bus, 2011). It indicates early literacy exposure, helps children connect speech and print, and facilitates the acquisition of phonemic awareness. Children use their letter-name knowledge to learn letter sounds, and when fluent at letter naming they can pay more attention to decoding and storing words in memory, thus laying the foundation for single-word reading (Both-deVries & Bus, 2008). At the start of the learn-to-read process in pre-school, children need rich exposure to alphabet letter names and sounds as tools for acquiring phonemic awareness and understanding the alphabetic principle (Neuman, Roskos, Wright, & Lenhart, 2007).

### **Phonological Awareness**

*Phonological awareness* involves developing sensitivity to sounds in words and the ability to manipulate them. It demands a conscious attention to the sound structure of speech as opposed to its meaning, which is difficult for young children who are highly focused on meaning making in their environment. Research demonstrates the causal role of phonological awareness in reading acquisition since it permits children to understand the alphabetic principle—that sounds (phonemes) can be represented by letters (graphemes) (McBride-Chang, 1999). Rapid automatic naming—the ability to rapidly name a sequence of objects, letters, or digits—and phonological memory—the ability to remember spoken information for a short period of time—are also implicated in phonological awareness since these abilities can support or constrain focused attention to sounds in language (Torgensen, 2002; Wolf, Bally, & Morris, 1986). Phonological awareness is distinguished from phoneme awareness in that the former refers to a general awareness of the sound structure of oral language and the latter to the understanding that spoken words consist of individual sounds that can be analyzed and manipulated. At a prereading stage of reading development, the instructional focus is on phonological awareness, and in particular the abilities to distinguish sounds in the environment, recognize and produce rhyming words, segment words in sentences and syllables in words, and recognize repetitions of an initial consonant (Adams, Foorman, Lundberg & Beeler, 1998).

### **Print Knowledge**

*Print knowledge* combines elements of alphabet letter knowledge, concepts about print, and early spelling. Broadly it includes conceptual knowledge of the purposes and conventions of print: concept of word; print awareness; and knowledge of reading terms, rules, and procedures. Print knowledge is moderately correlated with reading success, suggesting that it may be a proxy for print exposure and/or other early reading skill domains (e.g., alphabet letter

knowledge) (Lonigan, Burgess, & Anthony, 2000). Given the scope of print knowledge in terms of specific abilities and skills related to learning to read, it is necessarily a large part of early literacy instruction embedded in shared reading and read-aloud activities that introduce and expose children to the nature and function of written language—stories, texts, sentences, and words (Justice & Vukelich, 2008).

### Oral Language

*Oral language* constitutes a large domain of abilities significantly predictive of later reading achievement, including phonology, semantics, morphology, syntax, and pragmatics. As Perfetti (1987) argued, in the early phases of the learn-to-read process, “print is more similar to speech than speech is to print” (p. 356), thus abilities and skills of the more-familiar domain (oral language) are the most useful for problem solving in the less familiar domain (written language). In brief, children rely on their oral language knowledge to make sense of print, although their command of linguistic forms is tentative. Use of their oral language knowledge in print contexts is confronted by two challenges: the symbol-speech code and de-contextualized messages *in* print. Much preschool literacy instruction is focused on increasing the child’s familiarity with print (the coding factor) and supporting meaning making with printed messages in stories, texts, and words (the contextual factor). Sharing quality books with children and developing listening comprehension skills are key instructional approaches that focus the child’s attention on the code *and* the meaning embedded in print and picture.

### Vocabulary

*Vocabulary* is a high priority in the early years because of its profound influence on both oral and reading comprehension over the life span (Hart & Risley, 1995; Marulis & Neuman, 2010). It refers to the words an individual knows and can use in speaking (expressive vocabulary) and/or recognized in listening (receptive vocabulary). The NELP (2009) synthesis of early literacy research argues that “building vocabulary alone” is likely insufficient for improving outcomes in early literacy skills, although it certainly is the “foundation for grammatical knowledge, definitional vocabulary and listening comprehension” (p. 75). Obviously if children have a poor vocabulary (store of words) they will encounter difficulties in both the oral and written conduits of communication. Research evidence shows that children’s vocabulary store at age 3 predicts reading comprehension at Grade 3 (Biemiller, 2003; Hart & Risley, 2003). The preschool language and literacy curriculum, therefore, needs to be rich in vocabulary learning experiences that help children learn and understand many, many different kinds of words—basic concept words, root words, and disciplinary content words (Hirsch, 2006). Instruction should focus on helping children (1) acquire vocabulary through listening, speaking, shared reading, and writing; (2) develop their vocabulary consciousness—an awareness that words may have different meanings based on their context; and (3) cultivate a personal desire to learn new words (Biemiller & Boote, 2005; Silverman, 2007).

(Continued)

(Continued)

## Writing

Early literacy researchers have developed an extensive research base describing 3- to 5-year-olds' hypotheses about writing, establishing that early writing behaviors mark the beginning of a learning trajectory that leads to more conventional writing and reading behaviors in the elementary school years (e.g., Clay, 1975; Ferreiro & Teberosky, 1982; Teale & Sulzby, 1986). Writing begins with scribbles that are largely undifferentiated and over time move in a general trajectory toward forms that have more writing-like characteristics, including linearity, appropriate directional patterns, and individual units (Levin & Bus, 2003). Preschoolers construct texts that reflect syntactic and semantic features of a variety of genres such as stories, lists, labels, signs, letters, and e-mails; they naturally combine writing, drawing, and other symbol systems, and their texts reflect flexible interweaving of semiotic systems (Rowe, 2008). The body of research on early writing establishes the importance of encouraging and assessing 3- to 5-year-olds' attempts at writing even before they begin to form conventional letters or spellings for words. Preschool writing instruction emphasizes language experience, shared writing, name-writing, and exploratory spelling attempts as the foundation of writing conventions and processes, as well as plenty of opportunities for children to compose texts that they dictate and/or write themselves as authors (Gentry, 2005; Glover, 2009; Rowe, 2008).

## WHAT TEACHING PRACTICES SHOULD BE FOUND WITHIN INSTRUCTIONAL MATERIALS?

Instructional materials should promote strong pedagogy by incorporating effective teaching practices into the use of materials. Research supports systematic, sequential instruction in early literacy concepts and skills (Bowman et al., 2001; Frede, 1998; Pianta, Cox, & Snow, 2007), including all areas mentioned in Figure 1.2.

**Figure 1.2** Early Literacy Teaching Practices

## Environment

The systematic development of early literacy skills flourishes in a print-rich environment where there is an emphasis on oral-language development coupled with an emphasis on the foundational skills critical for grasping the alphabetic principle. Mixed-genre read-aloud books coordinated with content-rich units offer additional opportunities for developing children's vocabulary, phonology, syntax, and pragmatics that constitute strong language comprehension skills (Bowman et al., 2001; Snow et al., 1998). Opportunities for play, especially socio-dramatic play, provide meaningful contexts for practicing writing



and reading skills, for exercising self-regulation abilities (Diamond, Barnett, Thomas, & Munro, 2007), and for using oral language in collaborative ways (Bodrova & Leong, 2007; Roskos & Christie, 2007). Intervention techniques that support children at risk and with special needs are also an integral part of effective early literacy instruction (Barnett, VanDerHeyden, & Witt, 2007).

### Scope and Sequence

Additionally, the early literacy knowledge base supports a fairly well articulated scope and sequence for 4-year-olds in the development of phonological awareness, alphabet letter knowledge, vocabulary, print awareness, oral language abilities and skills, and writing (Burns et al., 1999; McBride-Chang, 1999; McGee, 2004; Treiman, 2000). While evidence is insufficient to determine an appropriate skill sequence for 3-year-olds, developmentally appropriate accomplishments have been identified, such as pretending to read, actively listening to stories, purposeful scribbling, and the like (Burns et al., 1999).

### Lesson Framework

Effective teaching practice in early childhood pedagogy recommends a lesson framework that includes several key elements of instruction: (a) an explanation of the purpose of instruction, (b) direct teacher modeling, (c) interactive teacher-student practice, (d) instructional checkpoints, (e) application and practice of new information, and (f) periodic or cumulative review (Bohn, Roehrig, & Pressley, 2004; Strickland, 1989). To this purpose, early literacy instruction is generally organized around three instructional formats: Circle Time, Story Time, and Activity Time. An optimal amount of time for early literacy instruction has not been determined from research, but a 75- to 90-minute block of engaging language and literacy activities, including play time, appears productive (NELP, 2009).

### Guidance

Teacher materials should provide planning guides for pacing daily instruction and notes for providing additional instruction as needed. Informal assessments should be used to make instructional adjustments in pacing, use of materials, and differentiating of instruction. In general, research shows the value of well-paced instruction that is supported by ongoing progress monitoring for making adjustments suited to student needs (Foorman & Torgeson, 2001; Wiggins & McTighe, 2007).

### Differentiated Instruction

Differentiated instruction is a teaching theory based on the premise that instructional approaches should vary and be adapted in relation to individual and diverse students in classrooms (Tomlinson, 2001). The purpose of differentiating instruction is to maximize each student's growth and individual success by meeting each student where he or she is and assisting in the learning

*(Continued)*

## 10 • Early Literacy Materials Selector (ELMS)

(Continued)

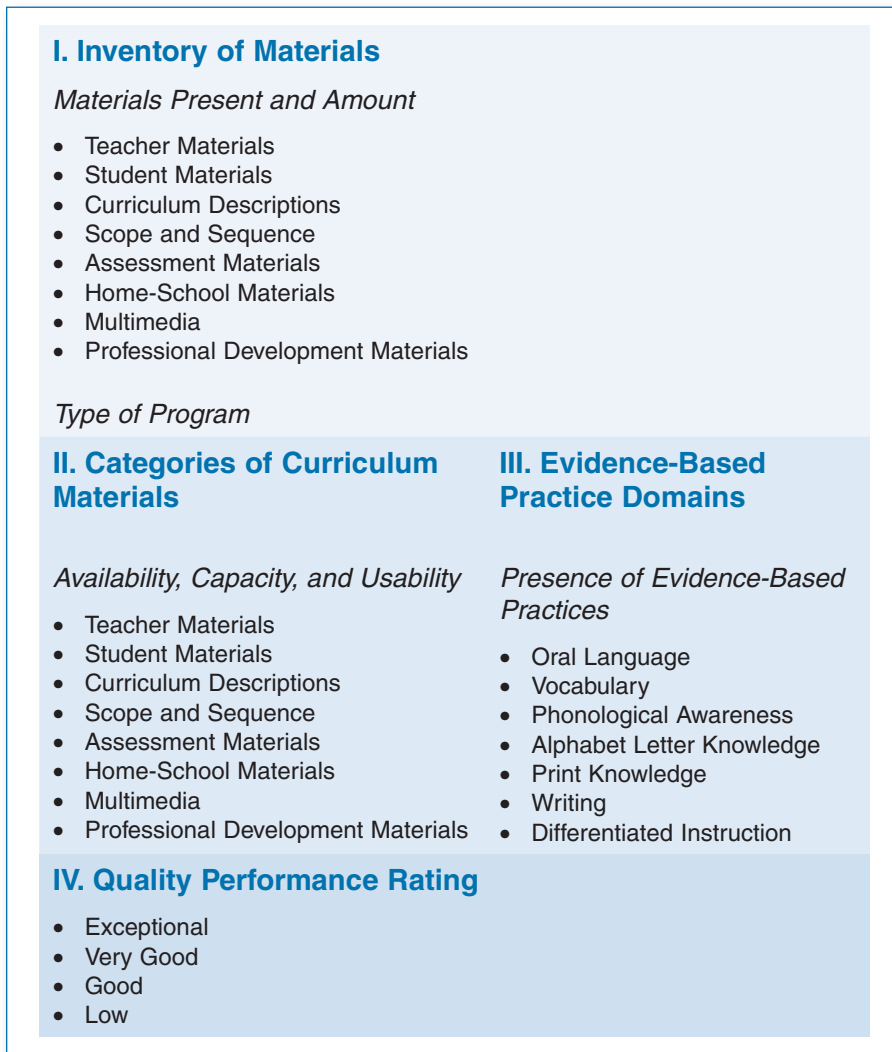
process; it means tailoring instruction to meet individual needs. Differentiated instruction is grounded in the work of Vygotsky's (1978) zone of proximal development (ZPD), which is the range at which learning takes place. Some of the first classroom research to support the concept of ZPD was done by Fisher et al. (1980) (cited in Hall, Strangman, & Meyer, 2011). Other practices have been noted as central to differentiation and have been validated in the effective teaching research (Ellis & Worthington, 1994). Based on this knowledge, the goal of differentiated instruction is to give students multiple options for taking in information and making sense of ideas. The model of differentiated instruction requires teachers to be flexible in their approach to teaching, and adjust the curriculum and presentation of information to learners rather than expecting students to modify themselves for the curriculum. For the preschool curriculum, this means that materials need to be inclusive to enough to meet the needs of all students yet flexible enough for teachers to make informed decisions for individuals. Additionally, the curriculum needs to offer a variety of media, such as books, manipulatives, and online resources to meet students' various learning styles.

### HOW IS THE ELMS TOOL ORGANIZED?

The design of the ELMS tool is grounded in the knowledge bases of early literacy learning and teaching. The tool includes an inventory for itemizing the materials contained in a program, eight categories of curriculum materials that reflect the material contents of a program, and seven domains of evidence-based practice that identify the early literacy skill instructional content of a program. The basic design of the tool is outlined in Figure 1.3.

ELMS is organized into four parts. Part I consists of an *Inventory of Materials* that identifies primary items and how many are available for instruction, as well as the type of program under review. Items are organized into eight categories of primary items commonly found in sets of curriculum materials and programs. These categories include Teacher Materials, Student Materials, Curriculum Descriptions, Scope and Sequence, Assessment Materials, Home-School Materials, Multimedia, and Professional Development Materials. Completing this section of the tool is an important first step in unpacking a set of curriculum materials and helps reviewers to become familiar with the material contents of a program. Commercial and prepackaged programs vary considerably in the types and amounts of materials that are provided for early literacy instruction.

Part II provides criteria for rating the *quality of materials* contained in a program or curriculum set within the eight categories. The reviewer

**Figure 1.3** Design of the ELMS Tool

rates the primary material items in each category on three criteria: (1) availability of items, that is, what items a category contains; (2) capacity, that is, that the primary items are available in a sufficient amount to accomplish effective instruction; and (3) usability, which describes the practical characteristics of the primary items available in terms of construction, appropriateness, and appeal. Each criterion uses a 0–3 scale to qualitatively rate the primary items in a category.

Part III, referred to as *Analysis of Guidance*, provides a method for systematically examining the set of directions or guidance provided to inform

## 12 • Early Literacy Materials Selector (ELMS)

instruction in seven early literacy skill domains that are the focus of evidence-based practice, including Oral Language Comprehension, Vocabulary, Phonological Awareness, Alphabet Letter Knowledge, Print Knowledge, Writing, and Differentiated Instruction. To conduct an analysis of guidance, the reviewer chooses a sample of lessons or activities from the set of materials/program. Most often, lessons or activities are described in the teacher guide or manual. For each lesson or activity, the reviewer searches for and locates the presence of key instructional items (best practices) in the seven early literacy skill domains. A total of 20 items are identified across seven evidence-based early literacy domains. The reviewer determines if the items are present in a sample lesson and computes the average for each skill domain in a set of sample lessons.

Part IV of the tool provides an overall rating of product quality, referred to as *Quality Performance Rating*. In this final application of the tool, the reviewer computes the average of percentages scores from Parts II and III. The total percentage score total is then placed on a continuum to indicate “exceptional,” “very good,” “good,” or “low” overall product quality performance. The reviewer can immediately see the potential of a set of materials/program as a resource that supports teachers in achieving the goal of excellent preschool literacy instruction for young children.

## CHAPTER 1 REVIEW

More than ever, educators need tools to help them examine and review the material resources they use for instruction. Quality materials in capable hands can make a difference in creating a nurturing and enriching literacy learning environment. The ELMS tool is designed to inventory the materials in a program in eight commonly used categories and to rate their quality in terms of availability, capacity, and usability. It provides a framework for reviewing the quality of the instructional guidance according to evidence-based domains of early literacy skill and practice. Based on these analyses, the reviewer can assess the overall quality performance of a product and its potential for use in a local setting. The first step is considering who will take part in the review and then determining what will be reviewed. Chapter 2 will help guide you in making these important decisions.