Purpose: In this article, the author presents a conceptual framework for intervention at school-age levels reflecting upon a number of aspects raised by Kamhi (2014) in the lead article of this forum. The focus is on the persistence of traditional practices, components of language intervention, and prioritizing goals for students with language learning difficulties. Weaving together learning and generalization challenges, the author considers advanced levels of language that move beyond preschool and early elementary grade goals and objectives with a focus on comprehension and meta-abilities.

Method: Using a 3-tiered macrostructure, the author demonstrates how integrating students’ background knowledge into intervention, helping them develop an awareness of structure and content interactions, and addressing the increasing demands of the curriculum provide a roadmap for improving clinical practices at school-age levels.

Conclusion: Reiterating some of Kamhi’s notions, the author addresses gaps that exist between available and, often, exciting research in language, literacy, and current practices in schools. Professionals are challenged by the persistence of approaches and techniques that defy what they know about children and adolescents with language learning disabilities. Nonetheless, there are reasons to remain optimistic about the future.

Key Words: intervention, language disorders, curriculum-based approaches, school-based services

Consider these excerpts from “speech” sessions in a school-based setting:

**Scenario 1.** A group of second graders are having difficulty producing and comprehending narrative text. The clinician has chosen a series of sequence activity as a prerequisite for higher level narrative activities. One activity includes the sequencing of a series of four cards showing the transition of a can of soup from its place on a counter to its destination in a bowl ready to be eaten. (There is no apparent narrator, agent, problem/conflict, or resolution.) One child takes a turn putting the cards in the correct sequence. The other children share opinions about whether the sequence makes sense. They all take turns telling the story. The clinician prompts the children with connecting words such as first, next, then, and last. (“First the soup is on the counter, next it is opened, then it is cooked on the stove, last it is put in a bowl and ready to eat.”) Several scenarios with cards depicting various sequences of commonly known events are used, followed by the continuation of sequencing activities (e.g., making a peanut butter sandwich, etc.) in this or subsequent sessions.

**Scenario 2.** A group of fourth graders receiving services for language impairment are involved in a listening activity. They are asked to follow the clinician’s directions. The students are rewarded by earning points that are converted into prizes or privileges. The directions start with easier commands (one-step commands that serve as warm-ups) and get more complicated (focused on two- and three-step commands). The instructions include the following and are described in terms of steps:

One-step commands: “Open the door.” “Pick up the ruler.”

Two-step commands: “Go to the shelf and take out the math book.” “After you open the book, turn to page 120.” “Pick up the red triangle before you touch the large, green circle.”

Three-step commands: “Stand up, turn around three times, and then tap Tim lightly on the head.” “Before you pick up the math book, tap Will four times, then write your name on the board.”

**Scenario 3.** A group of middle school students (Grades 6 and 7), who have knowledge of and interest in basketball, are asked to decide what a headline from a current sports’ section of a local newspaper means and how it could help them figure out what might be in the article. The headline reads: “Jazz Helps Lakers Become Mellow in Victory.” The

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students brainstorm about possibilities with a structured outline provided by the clinician. The prompts include “What I Know” and “What I Need to Know.” The clinician writes the words suggested by the students in the different columns. The article is read by the clinician (initially). The two columns are checked for accuracy and completeness and a third column, “What I Learned,” is added after listening to the article. Students are asked to summarize their findings orally, followed by preparing and completing a written rendition with outlines that include overall structure and sentence/word structure support. The same format, with a less predictable script, is followed using a new but somewhat related theme (from a current events activity related to social studies) that reads: “Rodman and Players Visit North Korea.” A coin is then flipped and students take turns reading the Rodman article and then completing an outline for their peers. Outlines with helpful word or phrase choices are compared and a final rendition is created by the group.

The three scenarios, and variations thereof, may be familiar to school-based speech-language pathologists (SLPs) and others who work with students across these grade levels. Each scenario encourages us, as Kamhi (2014) notes in the lead article, to reflect upon the choices we make for our students with language learning disabilities (LLD)1 and the connections and/or disconnections these choices have to current research in language, learning, and literacy. Although they cover different ages, grade levels, and aspects of language learning, the scenarios speak to several overarching considerations: Do the targets make sense? In other words, are the targets relevant to language and academic contexts beyond the “speech room” (i.e., are the choices, curriculum, and classroom relevant)? Are they relevant to language learning in general? Is the intervention’s focus encouraging performance (short-term learning that is context-bound) or long-term and context-independent learning? Maybe the most basic question is, where do these ideas come from? Although each of the intervention sessions may have some merit in the very broadest sense, let us get to the core of what each clinician was trying to do (Wallach, 2011) and ask what we can do to improve these (and other) clinical practices. Echoing several perspectives raised by Kamhi, we will take a closer look at the scenarios. In the following three sections, I explore some answers to these questions and present suggestions that may help us improve clinical practices for school-age children and adolescents. I focus on comprehension (i.e., “meaning making”) and metalinguistic and metacognitive aspects of intervention. I present these suggestions with an understanding that they are from a school-based perspective and represent the beginning of a longer dialogue (a) challenging traditionalism in speech and language intervention, (b) considering a three-tiered approach for school-age students with LLD, and (c) looking to the future as schools and school mandates evolve.

**Challenging Traditionalism in Speech and Language Intervention**

The first issue I must raise briefly is the persistent referral of the work of SLPs in schools as occurring within the “speech room.” When I hear our school-based children and adolescents say that they are “going to speech,” I have to cringe. Suffice it to say that the way we, as SLPs, identify ourselves as well as the targets and service delivery models we choose at different points in time influence what happens to the students we serve. The labeling of both professionals and the students they serve, as reflected in the confusion among specific language impairment, LLD, and specific learning disabilities, among other labels, often creates artificial barriers, inaccurate perceptions, and inappropriate intervention recommendations that exacerbate an already complex situation, that is, meeting the language learning and literacy needs of students across a changing landscape of required knowledge and skills needed to succeed academically. (See Sun & Wallach, 2014, for an in-depth discussion of terminology and eligibility criteria.) Beginning with Scenarios 1 and 2, let us consider some of the ways that the clinicians’ choices inform their theories of language learning and/or their descriptions of language and language hierarchies. We will also consider ways to improve the practices outlined as the discussion unfolds.

**A Case of Inaccurate Skill Choice?**

Scenarios 1 and 2 represent mismatches between the intervention activities chosen and the functional behaviors targeted. The example presented in Scenario 1 speaks to Kamhi’s notion that “improving narrative discourse and comprehension does not require the targeting of sequencing abilities [but, rather requires a] conceptual understanding of the topic and attentional/memory abilities” (p. 8). Although working on narratives is an integral element of language-based literacy assessment and intervention, as noted in Kamhi’s discussion and elsewhere (e.g., Bliss, McCabe, & Miranda, 1998; Boudreau, 2008; Gillam & Pearson, 2004; Hoffman, 2009), the clinician’s focus on sequencing as an underlying skill comes from sources that are unknown. As Kamhi (2014) notes: “no model of cognitive processing includes sequencing as a distinct cognitive process” (p. 8). Yet this scenario is repeated time and time again in school settings. Moreover, the “transfer” to producing and comprehending temporal and causal narratives from the soup scenario is an assumption that research fails to support. Duke and Pearson (2008/2009) mirror these notions when they state that the “transfer [of taught skills and strategies] decreases as a function of distance from the original information domain” (p. 113). Continuing with our analysis of Scenario 1, we note the clinician’s choice

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1The term language learning disabilities (LLD) is used in this article to reflect the heterogeneous population of children and adolescents with language disabilities that are not secondary to cognitive, emotional, hearing, and other disorders. I am using it synonymously with specific language impairment and recognize the difficulties throughout the literature regarding symptomatology, comorbid conditions, and outcomes (Sun & Wallach, 2013). Research strongly suggests that children with specific learning disabilities and those with LLD often represent overlapping rather than separate populations (Sun & Wallach, 2014).
of pictures and the spoken language accompanying them is representative of expository text (i.e., a sequential text) rather than narrative text. Duke and Pearson discuss this misstep by adding that knowledge and skills related to narrative text may not translate directly to the knowledge and skills needed to process and produce expository text. The message to our second graders in Scenario 1 is that they are “telling a story.” Is this message accurate? Will this activity help students learn about narrative structure? Would it be more helpful to teach children about some of the differences between various texts’ structure and function, an issue we will return to a bit later in this discussion (e.g., Connor et al., 2010; Damico, Baildon, Exter, & Guo, 2010; Manak, 2011; Ehren, Lenz, & Deshler, 2014)? The answers to these clinical questions are: No, No, and Yes.

On the positive side, the clinician’s inclusion of expository text knowledge and skill in language intervention goals and objectives, as early as late preschool and early elementary school, is an aspect of clinical practice that is supported and encouraged in the literature; many excellent resources are available that help bridge the gap between narrative and expository genres (e.g., Culatta, Hall-Kenyon, & Black, 2010; K. M. Hall, Markham, & Culatta, 2005; K. M. Hall & Saby, 2009; Hall-Kenyon & Black, 2010; Nippold & Scott, 2010; Ward-Lonergan & Duthie, 2013; Westby, Culatta, Lawrence, & Hall-Kenyon, 2010). In addition, helping children to “talk about” language, a metalinguistic component appropriate at school-age levels and earlier with appropriate scaffolding, is another positive element of clinical practice reflected in Scenario 1. By asking the first graders to make a judgment about whether the stories “make sense,” the SLP is encouraging metalinguistic awareness. But two questions should be raised: (a) Is the developmental level appropriate? and (b) Is the metalinguistic aspect of the activity creating a competing resource situation for the children (i.e., having to learn new connected language forms and having to make decisions about them; Lahey & Bloom, 1994)? A cautionary element for clinicians includes an understanding of the developmental aspects of metalinguistic development and the Appropriateness of various metalinguistic tasks (Miller, Leonard, & Finneran, 2008; van Kleeck, 1994). The inclusion of the comprehension and production of expository text across spoken and written domains should be a strong focus of clinical practice at school-age levels (e.g., Ward-Lonergan & Duthie, 2013). Likewise, facilitating metalinguistic (and metacognitive) awareness activities should be another component of clinical practice.

The Step-Command Meme: Another Tradition to Question

In 2004, Kamhi reminded us that too many memes permeate our field and influence clinical practices. He pointed out that “memes are elements of a culture that are passed down from generation to generation, person to person, or supervisor to student clinician, for example” (Kamhi, 2004, p. 106). Memes stick, says Kamhi, when they are easy to remember and understand. The idea that sequencing is a foundational and unitary skill for narrative development is an example of a meme. Two of the most persistent memes in clinical practice are (a) the central auditory processing meme and (b) the step-command meme. The two are often found together because the central auditory processing disorder label often leads to various auditory/listening activities. A careful reevaluation of these clinical practices is recommended highly (Fey et al., 2011; Kamhi, 2011; Wallach, 2011).

Scenario 2 is a perfect example of one of the most commonly observed intervention scenarios (for this author) whose goals are reflected as step-command improvements on individualized education programs. The students in question usually have difficulty comprehending instructions, attending in class, and interpreting and completing classroom assignments. Similar to Scenario 1, we have to look more closely to move beyond simplistic explanations (e.g., each clause equals a distinct step) for complex behaviors. Contextual, semantic, and linguistic factors influence the processing and comprehending of the commands or instructions noted in Scenario 2. For example, there are more contextual supports and semantic constraints (i.e., the clauses have a logical relationship) in instructions such as, “Go to the shelf and take out the math book.” or “After you open the book, turn to page 120.” By contrast, there is little contextualization and semantic predictability for sentences such as, “Pick up the red triangle before you touch the large, green circle.”

In addition, processing may be affected by whether what is said matches the order of events. When one says, “After you open your book [first event], turn to page 120 [second event],” the spoken order matches the order of events (not to mention the semantic constraint that you must open your book before going to any page; see also Kamhi, 2014). On the other hand, the order of events is the opposite of the spoken events in the sentence, “Before you open your book [second event], go to the shelf [first event].” The placement of the subordinate clause may also influence processing. Thus, beyond a simple “remember the steps” process, comprehending complex sentences is a symphony of semantic and syntactic knowledge that may be helped or hindered by the degree of contextual support and other linguistic factors. (Readers are encouraged to review Bever’s, 1970, classic work; also see Gillam, Hoffman, Marler, & Wynn-Dancy, 2002; Gorrell, 1998; Kidd, 2013; MacDonald & Christiansen, 2002; Magimairaj & Montgomery, 2012.) Helping our students with LLD learn how to read and write complex syntactic forms, recognize and use function words and phrases that change meaning (e.g., except for; before/after, etc.), and ask for repetition when needed are representative of more strategic, broader-based targets for processing and comprehending language and for developing advanced syntactic knowledge and skill. (See Kamhi’s suggestions on pp. 92–103 of this forum and additional suggestions that follow in the next section.) The activities outlined in Scenario 2 reflect Kamhi’s thinking about performance-based activities that are too restricted to the therapy room. The three-step example, “Before you pick up the math book, tap Will four times, then write your name on the board,” teaches what kind of comprehension strategy or linguistic skill to the students? Can they use what they are learning in
“speech” in their classrooms? When spoken instructions are too dense or complex, wouldn’t it be more appropriate to teach students to use various clarification strategies such as, “Could you run that by me again?” and “Did you say before or after?”

Brief Summary: Reflections So Far

Scenario 3 reflects some of the principles that may provide us with improved and improving clinical practices in school-age language intervention. Although the students in Scenario 3 are older than the students in the previous two scenarios, the overriding principles reiterate some of Kamhi’s (2014) suggestions and recommendations that are supported by research in developmental disorders. For example, the clinician is working with the students to help them become actively engaged in language (Bashir & Singer, 2006). She is working from a strong knowledge-building and meaning-focused base. She uses students’ background knowledge (the basketball content) to help them make connections between that knowledge (old information) and new (current events) information. Although the basketball theme is not part of students’ content-area learning, the SLP begins here for a particular reason. That is, she wants the students to practice using new strategies (e.g., using a title to predict what’s coming up in the text) with content they already know something about (again, the basketball content). This practice component reduces competing resources (Lahey & Bloom, 1994). Her intervention is geared toward facilitating skills and strategies that would be useful in the social studies classroom (e.g., use titles in your history textbooks, understand what they may say about the text, make predictions, and then verify those predictions). The SLP alternates the predictability of the session’s activities as the students tackle spoken and written components and move on to content that is curriculum-specific.

Discussions about language, heightening student’s awareness of language (and their thinking), weave their way through the session. Scaffolding with visual maps and outlines facilitates written renditions where macro (overall organization of expository text in this case) and micro (syntactic or word level) components are integrated. Inspired by Ehren’s work in school-age language (e.g., Ehren, 2000, 2005, 2009, 2013), the clinician in Scenario 3 understands that SLPs’ work includes helping students acquire the language knowledge, skills, and strategies needed for school success. Clearly, numerous variables including a student’s language level, the content (of information presented), and the clinician’s choices come into play to form an intervention program’s success (Baumann, 2009; Snow, 2002). We will expand upon these concepts in the next section.

A Three-Pronged Approach to Language Intervention at School-Age Levels: A Beginning

Three areas of consideration for improving clinical practice at school-age levels include (a) creating intervention goals that are knowledge based and help students connect known and new information; (b) balancing content knowledge and awareness of text structure in functional, authentic tasks that optimize long-term retention and transfer across grades and content-area subjects; and (c) matching students’ language goals and objectives to the “outside world” of curricular and classroom contexts. These suggestions are inspired by the many excellent sources that appear in the literature, as discussed by Kamhi (2014) and the authors of this forum, and are part of my ongoing work with colleagues (e.g., Wallach, Charlton, & Christie, 2009, 2010; Wallach, Charlton, & Bartholomew, 2014).

Helping Students Connect Known and New Information

As only one component of language intervention with an eye toward the development of independent learners and proficient language users, research suggests that engaging students in prior knowledge activities increases the comprehension and retention of information (e.g., Duke, Pressley, & Hilden, 2004; Keenan, 2014; Kintsch, 1998; Ogle, 1986; Pressley, 2000). Related to the phenomena of creating stable mental models of language, Lahey’s and Bloom’s (1994) concept of competing resources (already mentioned in relation to Scenario 1) should resonate with clinicians who work with children and adolescents with LLD. Trying to understand a science lesson (complex concepts and dense language) couched in advanced and complicated language forms creates a competing resource situation. For younger children, learning new language forms within the context of learning a new game creates another competing resource situation. In other words, when too much is new, comprehension and retention suffer; something has to “give” or be modified to facilitate learning. For example, in Scenario 3, as mentioned, the SLP uses a familiar topic (something the students have knowledge of and hopefully interest in) to help them learn something new: in this case, to learn to dissect the meaning of the headline and to use an expectation or predictive strategy to comprehend the text. The clinician in Scenario 1 also tries to ease the burden of the new discourse task by using pictures that represent commonly known sequences (if they are, in fact, commonly known).

Clinicians should be aware of the role of background or prior knowledge in the language learning process, although no one is suggesting that SLPs try to fill in all of students’ knowledge gaps (Ehren, 2013). When a student isn’t “getting it” or isn’t “processing it,” however, Keenan (2014) suggests separating (or at least considering) the differences between comprehension problems that are more focused on the language itself and knowledge problems. Comprehension of spoken and written language and the ability to express ideas coherently include drawing on one’s prior knowledge and making inferences (which are affected by prior knowledge of a topic or situation), among linguistic skills such as resolving semantic and structural confusions (Duke, Cartwright, & Hilden, 2014; Keenan, 2014; Kintsch, 1998; Lesaux, Kieffer, Faller, & Kelley, 2010). Engaging students in prior knowledge activities that include questioning and other meaning-based
strategies encourage them to use and express what they do know, talk about what they need to know, and become more actively involved in interacting with spoken and written text (Wallach et al., 2014). There are many resources available to clinicians that include research-driven suggestions that integrate prior knowledge components with language knowledge, skills, and strategies.

Consider the following excerpt from a Grade 9 textbook:

King drew upon the philosophy and techniques of Indian leader, Mohandas Gandhi, who had used non-violent resistance effectively against British rule in India. Like Gandhi, King encouraged his followers to disobey unjust laws. Believing in people’s ability to transform themselves, King was certain that public opinion would eventually force the government to end segregation. (Appleby, Brinkley, Broussard, McPherson, & Ritchie, 2006, p. 745; from Wallach et al., 2014, p. 489)

Snow (2002) reminds us that passages such as the King/Gandhi excerpt put students in a place where they seem “incapable of understanding or remembering [them]” (p. 79). Although clinicians often tell me that their students with LLD “can’t remember what they read,” helping our ninth graders manage (and retain) school-based texts such as the one above go far beyond creating memory activities for them. (I agree with Kamhi’s, 2014, skepticism regarding the addition of isolated memory components in language intervention.) Helping students navigate through the expository text and its complicated content can begin with the use of evidence-based strategies including self-questioning and clinician-led discussions to guide students through the maze of information. Various frameworks appear in the literature including (a) the TWA paradigm (think before reading, think while reading, think after reading; Duke et al., 2004; Mason, Meadan, Hedin, & Corso, 2006; Pressley, 2000; Vaughn & Klingner, 2004); and (b) various renditions of Ogle’s (1986) K-W-L format, noted in Scenario 3 (what I know, what I want to know, what I learned; see Wallach et al., 2010, 2014).

Research suggests that having students engage actively in connected text by asking questions about the text, exploring topics introduced in texts, and summarizing the key ideas from texts in a TWA format facilitates comprehension (e.g., Ehren, Fey, & Gillam, 2005; L. A. Hall, 2012; Westby et al., 2010). The “what I know” section from Ogle’s K-W-L model combines before and during reading activities (McKeown, Beck, & Blake, 2009). The “what I learned” is an after-reading activity. Within a collaborative framework, teachers may be more focused on the content of the passage (e.g., “Who is Dr. King?” “Who is Gandhi?”), whereas SLPs may focus on the text’s structure, for example, “What do you notice about how the paragraph is written?” “What do you need to know in order to write a compare/contrast report?” “What key words did you learn to use for compare or contrast text?” (Wallach et al., 2014; see Ehren et al., 2014; Ward-Lonergan & Duthie, 2013, for additional suggestions).

This activation of background knowledge becomes critical especially as students move through the grades. But it is clearly not enough to help our students become proficient language users (L. A. Hall, 2012; Raphael & Au, 2005). Clinical practice is certainly improved when we focus on helping students make connections (e.g., Applebee, Langer, Nystrand, & Gamoran, 2003; Diakidoy, Mouskounti, & Ioannides, 2011; Knickerbocker & Ryckie, 2006; McKeown, Beck, & Blake, 2009; Ogle, 2010) and develop a metalinguistic and metacognitive repertoire for dealing with new academic challenges (Leland, Ociepka, & Kuonen, 2012; Manak, 2011; Sinatra & Broughton, 2011). I will move to a discussion of specific content and structural considerations next.

Balancing Content and Structure Knowledge in Functional and Authentic Tasks

Consider one of my favorite paragraphs from a Grade 5 social studies textbook.

The colonists knew that their actions would have very serious consequences, or results. After hearing about the Boston Tea Party, Parliament decided to punish the colony of Massachusetts. A law was passed saying that no ship carrying colonial goods could leave Boston Harbor until the colonists had paid for all the tea that was destroyed. To enforce the new law, Parliament ordered the Royal Navy to blockade Boston Harbor. … The Boston Tea Party was the colonists’ response to the unfair tax instituted the prior year by the British Parliament. (Harcourt School Publishers, 2000, p. 280; also quoted in Wallach et al., 2009, pp. 202, 206)

As a bridge between the previous and next section, readers can certainly appreciate the level of both background and linguistic knowledge needed to access the information in this abbreviated excerpt (Ehren, Murza, & Malani, 2012; Faggella-Luby, Graner, Deshler, & Drew, 2012). Our colleagues in disciplinary literacy (next section) would also remind us that history has its own language style (e.g., Fang, Schleppegrell, & Moore, 2014; Shanahan & Shanahan, 2012). No kit or program from the hundreds that appear in ASHA Convention exhibit halls year after year will come to our rescue. It’s about the text itself. The content and structure of the Boston Tea Party text is incomprehensible (and impossible to remember and retain) for many of our students with LLD in fourth and fifth grade classrooms, especially when the content (i.e., the American Revolution) is unfamiliar to them. Some of the metalinguistic and metacognitive strategies referenced in the previous section are applicable here (as are those summarized in Scenario 3).

Balancing specific macro (the overall organization of expository text) and micro (syntactic and morphological) components of language is a part of clinical practice in language intervention across time. Currently, however, we cannot say specifically how that balance should be achieved (e.g., Ukrainetz, 2009). What we do know is that these aspects of language learning are critical for school success. At the macro level, intervention goals could be focused on developing students’ abilities to use various subgenres of expository
text (e.g., compare/contrast, enumerative, descriptive structures and, in this case, a cause/effect structure; Gajiria, Jitendra, Sood, & Sacks, 2007; Westby et al., 2010). Current thinking suggests that clinical practice should include exposing children to expository text as early as preschool so that they are more prepared for the deluge of content-area learning, couched in expository text, when they come to school (e.g., Culatta et al., 2010; K. M. Hall et al., 2005; K. M. Hall & Saby, 2009; Hall-Kenyon & Black, 2010; Wallach et al., 2014).

In addition to macro-level abilities, a review of the Grade 5 Tea Party excerpt above brings to mind Kamhi’s (2014) discussion of the inclusion of complex morphosyntactic goals (i.e., microlevel goals) that go well beyond is … [verb]ing and Brown’s 14 morphemes. Complex language forms such as passives and multiple embedded sentences (e.g., A law was passed saying that no ship carrying colonial goods could leave Boston Harbor until the colonists had paid for all the tea that was destroyed) and literate-style vocabulary (e.g., connecting forms such as by contrast, similarly, in addition to, prior to, until, etc.), are found frequently in school texts (Coxhead, 2000; Lesaux et al., 2010; Nippold & Scott, 2010; Scott & Balthazar, 2010; Scott & Koonce, 2014). Working on complex syntactic forms and cohesive devices mirror Kamhi’s (2014) suggestions about improving clinical practice. Wallach et al. (2009) provided some examples of sentence combining by pulling the main propositions of the sentence apart and using word banks with choices such as before/prior, after/following, and while/meanwhile to unravel the who-did-what-to-whom in sentences such as The Boston Tea Party was the colonists’ response to the unfair tax instituted the prior year by the British (see Schuele, 2013). Likewise, expanding students’ understanding of relationships among words (e.g., consider the words colony, colonists, colonial from the Grade 5 excerpt) are directions clinicians might take in language intervention for both spoken and written language (e.g., Carlisle & Goodwin, 2014). But we are reminded that achieving the balance between macro and micro levels is a difficult task. Thinking about achieving a balance among macro and micro levels in our intervention choices calls to mind Hoffman’s (2009) words: “Discourse intervention is a bidirectional process that is co-constructed between the child and the clinician while interacting with complex, multidimensional content” (p. 339).

Bridging the prior knowledge/linguistic knowledge gap is a fascinating challenge for those of us who work with school-age students with LLD. My colleagues and I have found the work of McKeown and her colleagues (e.g., Beck, McKeown, & Worthy, 1995; McKeown et al., 2009; McKeown, Beck, Sinatra, & Loxterman, 1992) particularly helpful when trying to understand the complex interaction between content and structure knowledge. Their research may help us to develop guidelines in clinical practice. Their work focuses on what good readers do when trying to comprehend written text, but the ideas presented are worth considering when working with students with LLD. For example, they indicate that although good readers use background knowledge to interpret text, they also pay attention to the organization and structure of text, especially when topics are unfamiliar and informationally loaded. McKeown et al. (1992, 2009) and Beck et al. (1995) point out a number of approaches: (a) using key words and phrases is important (for listening as well), (b) structural knowledge is especially important when faced with unfamiliar material, (c) background knowledge is really helpful when a text is well organized, and (d) retention of information is almost impossible when background knowledge and structural knowledge are problematic (Wallach et al., 2014). As we process these research findings, we can see why curricular materials present our students with tremendous challenges. Clinical practices must address these challenges.

Matching Students’ Language Goals and Objectives to the Outside World of Curricular and Classroom Contexts

Improving clinical practices includes an appreciation and understanding of ways that our concepts about literacy have broadened (Moje, 2008; Moje et al., 2004). Clinicians should find a balance between helping students with LLD acquire the language skills and strategies that cut across subject areas (i.e., those that are closer to the foundational literacies of the early elementary grades and those that are considered transitional literacies including prediction and inferencing abilities) and those that are subject specific (i.e., the disciplinary literacies or language styles related to subjects such as social studies, science, etc.). Disciplinary literacy is one of today’s hottest topics. Improving clinical practices includes having knowledge of the language requirements of content-area subjects. SLPs can make an important contribution in this arena as they collaborate with content-area teachers. SLPs can contribute to the conversation by working on the language underpinnings (such as helping students acquire complex syntactic forms, write compare/contrast reports, etc.) of content-area subjects (Ehren, 2013). For example, science involves many technical terms and definitions and requires clear and concise cause and effect thinking (Fang, 2004; Halliday, 1993). “The noun phrases [in science texts] contain a large quantity of information that in more commonsense language of everyday life would require several sentences to express” (Fang, 2012, p. 24). Clinicians are encouraged to review Fang’s (2012) discussion of the syntactic demands in science. Although advanced syntactic proficiency and word knowledge are among the critical linguistic components of science, authorship is not an important element. Alternatively, social studies involves being able to put events into a context, comparing sources, and understanding the biases of the writer. Unlike science, authorship is important in history. Many Tier 2 words, also mentioned by Kamhi (2014) and in the previous section, are relevant intervention targets at school-age levels. They include relational words and phrases and what Lesaux et al. (2010) called a high utility of academic and abstract words in science (e.g., evidence, method, integrate, identify, contribute, etc.) and in history (before, after, moreover, meanwhile, at a previous time; Wallach et al., 2014). We might ask several questions related
to some of the curricular demands facing students with LLD on a daily basis: Can they handle complex syntactic forms that are more common in written language than spoken language? Do they have an understanding of word derivations? Do our students know how to write a compare and contrast expository piece? Are they able to evaluate sources information? Do they use prior knowledge and experience to help them comprehend new information? (See Bain, 2005; Damico et al., 2010; Fisher & Frey, 2008; Loewen, 2010; Shanahan & Shanahan, 2012; VanSledright, 2002, 2004; Villano, 2005; and Wineburg, 2001, for more in-depth discussions.)

Wallach et al. (2014) suggested the following as we strive to find a balance between more generally focused language targets and subject-specific considerations:

1. “Strategies and linguistic skills that are part of a student’s language intervention goals and objectives should be connected to content-area subjects. For example, if intervention included working on expository text, using familiar and high-interest topics (e.g., having students compare and contrast the articles written by two sports writers from different cities), we need to connect the compare/contrast activity from sports to a compare and contrast activity that involves two versions of a historical event (e.g., the American and British renditions of the American Revolution).” (Damico et al., 2010, p. 326).

2. Students’ knowledge and skills must be brought to the surface (i.e., they must talk about skills and strategies used and analyze and evaluate relationships on a conscious level). Students need to articulate the ways that listeners and readers “get to meaning” in different subject areas and understand what is most significant in each area (Moje, 2008). For example, why is inferencing an important strategy for understanding history? Why is science different? As students become “more strategic and self-reliant, they become more aware of their own thinking or metacognition about their own reading [and learning]” (Damico et al., 2010, p. 423; quoted in Wallach et al., 2014, p. 495).

3. Content knowledge and awareness of text structure as they relate to learning social studies, science, and other subjects should be understood as intersecting elements of comprehension [and learning] when making language-intervention choices (Wallach et al., 2010). The balance between content and structure knowledge remains in the forefront of our efforts to help students “infer, co-construct, and analyze what [authors are trying to say]” (Lapp, Fisher, & Johnson, 2010, p. 423; quoted in Wallach et al., 2014, p. 495).

**Final Thoughts on Improving Clinical Practice: Understand the Context in Which Intervention Is Delivered**

When children with LLD enter school, they are faced with a new set of challenges that place them in a different cultural context. It is assumed that children come to school with a reasonable level of background knowledge and language proficiency. As discussed above, the assumption is that children bring some knowledge and skill with them to school; foundational literacies (including conversational and narrative skills and early decoding) are enhanced in the early grades. For our students with language difficulties, the academic challenge is heightened because they may bring less developed or different levels of knowledge and language skill with them to the classrooms they will inhabit and the textbooks they will explore. Thus, as emphasized throughout this article, school-based SLPs must consider ways that students’ language abilities influence and interact with their academic success (Wallach et al., 2014). Our intervention should be seen as developing a set of language initiatives focused toward content-area learning (A. S. Bashir, personal communication, 2012; Wallach et al., 2009). We would aim to think of our language intervention goals as those that emphasize students’ active engagement in their own learning and to help them acquire the knowledge, skills, and strategies needed to access and retain curricular content (e.g., Ehren, 2013; Fang et al., 2014) as well as dealing with the social and emotional pressures that accompany the changing demands across time (Sun & Wallach, 2013).

Indeed, staying focused on the continuum of change across the grades is an important aspect of clinical practice in the school years. Likewise, as suggested by many authors, connecting our preschool endeavors to the horizon of school-age demands underpins our work over time (e.g., Culatta et al., 2010; Fey, Catts, Larrivee, 1995). It is important to remember that by third grade, students become more involved in the refinement of content-area literacies including developing abilities to make predictions and inferences. (They are developing these skills earlier, but the demands of the curriculum change dramatically after third grade). In California, for example, children must read the instructions independently on statewide tests without teacher support in Grade 3. When students enter middle school, they are expected to participate in more in-depth study of content-area subjects, all of which have their own, unique language styles (Fang et al., 2014; Wallach et al., 2014). Evolving through middle and high school levels, students have to take notes from lectures, paraphrase and summarize information, write detailed reports on less familiar and unfamiliar subjects, solve problems, and learn to think critically and abstractly. The world of adolescent literacy is rich with information with the work of Barbara Ehren, Marilyn Nippold, and many others referenced here and in this forum and in journals such as the Journal of Adolescent and Adult Literacy and our own journals in speech and language, offering research and practical suggestions (e.g., see Ehren, 2002, 2009; Ehren et al., 2014; Hoffman, 2013; Nippold & Scott, 2010).

Clinical practices for school-age children with LLD have come a long way, but there is much work to be done in many areas, for example, learning how much intervention is enough (Ukrainetz, 2009) and how to meet the needs of our bilingual and multilingual students with and without LLD (Soltero-González, Klingner, & Cano-Rodriguez, 2014). As we look to changes in service delivery models in schools...
including research that supports response-to-intervention (RtI) models (e.g., Wixson, Lipson, & Valencia, 2014), we can be optimistic that less relevant and nonfunctional practices will die natural deaths. As modifications are made to current school mandates across the country, we may uncover new challenges conducting research that links evidence-based practices to the Common Core State Standards (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010; e.g., Whitmire, Rivers, Mele-McCarthy, & Staskowski, 2014). Indeed, beyond downloading the Common Core State Standards, developing and maintaining communication with content-area teachers remains key to creating an atmosphere of shared responsibilities in literacy and academic success and meeting the specific needs of the children and adolescents we serve (Ehren, 2013).

The resources reflected throughout this forum provide us with innovative, exciting, and meaningful directions. We know much more about what it takes to get our students to the deeper meaning of “Jazz Helps Lakers Become Mellow in Victory.”2 Perhaps we have only scratched the surface in this article, but I have attempted to provide some possibilities about where to begin.

References


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22 “Jazz Helps Lakers Become Mellow in Victory” refers to an article that expresses the sportswriter’s frustration with the Los Angeles Lakers’ less-than-passionate effort in beating the Utah Jazz at a crucial point in the season toward a championship. The author’s intent was derived only after a careful analysis of both the title and the text.


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