ABSTRACT: This study investigated the nature of language intervention through the practices of 5 Wyoming school speech-language pathologists. The study was a multiple case study design. Data were collected through observation, interview, and document review. Results showed that each clinician constructed a selective and coherent approach to language intervention. Three major choices were determined: phonological processing, basic concepts, and discourse-based intervention. Subtypes, service delivery, and treatment methods are discussed. The approaches resulted in diverse ways of teaching language that, despite the diversity, all fell within current scope of practice and evidence-based practices.

KEY WORDS: school speech-language pathology, child language intervention, service delivery

Language is a huge domain, divisible in many ways and overlapping with other domains such as speech, perception, cognition, and literacy. Language intervention is the intentional act of accelerating or changing the development of language that is below or different from that expected for chronological age (Fey, 1986). Like language, intervention can occur in many ways. Understanding of what language involves and what speech-language pathologists (SLPs) are responsible for has expanded continuously for several decades (Rees, 1983). The explosion of knowledge in the 1960s for morphology, syntax, and semantics, combined with the emergence of age and stage descriptions, led to a period that Rees described as “exciting for the language professional but still simple” (p. 310), with clear goals for language intervention and structured ways of teaching language. The situation becomes much more complicated, however, with the addition of topics such as pragmatics, reading, learning, and cognition. Rees stated that the problem facing the SLP in 1983 was to make sense out of all of this information and apply it to principles and procedures of language intervention. Twenty years later, this continues to be a challenge. The field of school language intervention has become diverse and encompassing, ranging from traditional topics of vocabulary and grammar to newer domains of reading, executive functions, social–emotional functioning, and limited English proficiency (American Speech-Language-Hearing Association [ASHA], 1999).

Treatment method possibilities have also increased with the use of more natural, communicative contexts. Discrete skill instruction continues to be an option for speech and language skills that can be taught within tightly controlled, hierarchically structured tasks and generalized to daily life activities. At the same time, for other language objectives, SLPs must know how to systematically scaffold learning within whole, purposeful, complicated activities (Nelson, 1995; Ukrainetz, 1998). SLPs may favor one approach over another but need to be competent in both in order to manage the diverse needs of a caseload.

In addition to myriad intervention targets and varying treatment approaches, service has extended into the secondary grades, and service delivery options have expanded. SLPs must know how to work with the very different learning needs of first-grade and eleventh-grade students. SLPs may provide intervention in pullout individual or small groups, in a variety of in-class arrangements, or on a consulting or curriculum modification basis (Meyer, 1997). Various degrees of collaboration with regular and other special education teachers can occur
(Dohan & Schulz, 1998). With a focus on reading and curriculum-based instruction, SLPs may provide services much like resource teachers (Ukrainetz & Fresquez, 2003).

Ukrainetz and Fresquez (2003) qualitatively examined the practices of 5 school SLPs and 15 teachers from the SLPs’ schools to determine how language operated as a domain of specialization and how SLPs operated relative to other remedial educators. Although the speech component of the practice of speech-language pathology clearly belonged to the SLPs, language specialization was not apparent. Instead, all of the educators recognized the pervasiveness of language across the curriculum and saw language instruction as their primary responsibility. Language targets, methods, and activities were similar for resource teachers and SLPs in their support of the language-learning needs of low-achieving students. Interestingly, the SLPs were distinctive in their relative independence from mandated curricula, content mastery, and grades; allowing more freedom, but also less guidance, for intervention approaches, methods, and targets.

The result of this evolution in language and SLP practices is a knowledge base for language intervention that is “so broad and deep that literally hundreds of texts across several disciplines that address language development and disorders are published annually” (Butler, 1999, p. 24). School-age language intervention textbooks published within the past decade indicate the breadth and diversity of focus, such as Catts and Khami’s (1999) reading and writing focus; Tibbits’ (1995) collection of oral language and thinking skills chapters; Merritt and Culatta’s (1998) oral and written narrative and expository comprehension; and Naremore, Densmore, and Harman’s (1995) oral conversation and narrative production. The service delivery chapters within each also emphasize the wide range of possibilities, with more than 100 pages on collaborative possibilities alone in each of Tibbits, and Merritt and Culatta.

There is little in the literature guiding SLPs through this maze of intervention possibilities. The conventional wisdom is that choices should be made based on the needs of the child. Systematic, detailed assessments of a child’s communication system and learning style should reveal the treatment path. However, even an in-depth understanding of the child’s oral and written communication performance across contexts likely will not lead to a single specific intervention route. It is not known what the most critical skills are to teach to which children at which times or how skills should best be taught (Butler, 1999; Rees, 1983). Although there is often a particular language target, service delivery model, or therapy method receiving primary attention in the literature at any point in time, significant treatment effects can be found for a broad and diverse range of intervention approaches (Johnston, 1983).

A language impairment will have many points of access and many reasonable ways of treatment. For example, Gillam, McFadden, and van Kleek (1995) demonstrated significant language changes for two contrastive treatment approaches for two groups of 9-12-year-old children who were similar in language profiles at therapy outset. The discrete skill approach resulted in changes in form measures on narrative samples and the holistic approach resulted in changes in content and overall quality of the narratives. Although neither approach improved all areas of language function, both resulted in desirable improvements in aspects of language.

SLPs must make intervention choices that they feel effectively contribute to children’s communicative competence and academic success within the dynamics and resources of their schools. There is no single response to this situation, and the range and specific nature of the responses is largely undocumented. Current discussions about evidence-based practice and research-practice connections would benefit from a better understanding of what SLPs are actually doing in the schools. Damico (1988, 1990) sought to understand what motivates SLP practice and what inhibits effective clinical decisions. Ukrainetz and Trujillo (1999) investigated how SLPs use children’s literature in language intervention. Such descriptions provide information on how speech-language pathology occurs in practice as well as on paper. These understandings are not considered to be representative in the conventional sense of a hypothetical “average SLP” like that of a survey. Instead, descriptions of a small number of SLPs within their particular work settings are intended to illustrate the types of interventions that are occurring in the schools. Individual readers will consider whether these situations make sense to them and whether these explanations apply to their own situations. Specific aspects of the findings can then be used to construct informed a priori hypotheses to be tested on large samples to determine range and representativeness.

The purpose of this study was to provide empirical data on how individual SLPs are responding to the enlarging views of language intervention. The author sought to understand how SLPs teach form, content, and use; how they teach phonemic awareness; and how they consider they address literacy. The study is a multiple case study design triangulating observation, interview, and document review. These results are part of a broader project. The project resulted in two distinct understandings: how SLPs and other remedial educators compared and contrasted in their language and literacy roles (Ukrainetz & Fresquez, 2003) and the current article on how each SLP conducted her language intervention practice.

**METHOD**

**Participants**

The participants were 5 SLPs with 10 or more years of experience from across Wyoming (Table 1). All of their full-time experience was in the schools. They had each worked at their respective schools for 6 or more years. Self-selected pseudonyms are used: Marla, Kathryn, Lulu, Dana, and Chris.

Purposeful sampling was used to select the SLPs. The SLPs were selected to provide a contrastive picture of respected practitioners. The recommendations came from two or more sources (e.g., practicum students, other SLPs, and administrators). For example, Lulu recommended Marla...
because she considered Marla’s phonological processing approach very different from her thematic unit approach. A practicum student confirmed the nature of Marla’s work and contact was made. The SLPs’ language intervention were not considered exemplary practices, but practices of at least community standards. All of the SLPs were selected from Wyoming to provide a common interpretive base for the participants and researchers.

Data Sources

The data were collected by the author. Visit length varied from 1 hr to 1 day, over periods of 5 days to 4 weeks. The author spent 1 week at a site 400 miles away from the university. Multiple partial-day visits were made over several weeks to the local sites, and once-weekly visits over several weeks to the sites that were 50 and 100 miles away. Data collection lasted at each site until the author considered that she had a good understanding of that site. Data sources consisted of the following:

- Audiotaped open-ended interviews with each SLP, transcribed by research assistants, and a few clarifying questions by e-mail. Topics included education and work history; degree to which programs and practices were mandated; caseload, service structure, and assessment methods; intervention practices; explaining the terms “language” and “phonemic awareness”; role in reading and writing instruction; and roles and interconnections of the remedial educators.
- Several observations of each SLP carrying out therapy. The SLP observations took place wherever therapy was occurring: speech room, resource room, or classroom. The author transcribed the field notes, expanding and clarifying from the handwritten work within 2 days of taking the notes.
- With parent permission, file examination for 3 children receiving speech-language services at each school. SLP treatment logs and materials were also examined.

Analysis

The observations, interviews, and document review transcripts were organized by SLP site. Essays were developed on each SLP. Determination of intervention approaches was based on SLP self-description, repeated observation, and evidence in the SLP files. For example, all of the SLPs taught vocabulary, but it was considered fundamental to one SLP’s approach. This SLP, Kathryn, was observed repeatedly to teach basic concepts and semantic knowledge. She had specific methods for facilitating comprehension. She described her work as involving vocabulary and concepts.

Drafts of the essays were shared with the 5 participating SLPs. Their comments were integrated into the final interpretations.

A qualitative researcher in child development who was not connected to the project served as inquiry auditor on the full project. She had published peer-reviewed qualitative research, had served as an auditor on qualitative dissertations, and had taught qualitative research methods. The auditor checked for consents, preservation of anonymity, and record keeping. She compared randomly selected audiotapes and field notes to transcriptions and essays. She examined pages of transcripts and drafted her own interpretations, which were compared to the report findings. The auditor report concluded that the study procedures and findings were sound.

RESULTS

The practices of the 5 participating SLPs will be described. Language targets, framework, activities, physical context, collaboration, and role in phonemic awareness and reading instruction are detailed to determine patterns of practice.

Marla: Phonological Processing and “Word-a-Day”

Marla’s intervention was built around the underlying abilities involved in phonological processing. Marla’s

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Table 1. Description of speech-language pathologist (SLP) participants and their schools.

<table>
<thead>
<tr>
<th></th>
<th>Marla</th>
<th>Kathryn</th>
<th>Lulu</th>
<th>Dana</th>
<th>Chris</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>MS</td>
<td>BS</td>
<td>MS</td>
<td>MS</td>
<td>MS</td>
</tr>
<tr>
<td>Certification</td>
<td>CCC</td>
<td>CCC</td>
<td>CCC</td>
<td>CCC</td>
<td>CCC</td>
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<tr>
<td>Federal type</td>
<td>Teacher</td>
<td>Teacher</td>
<td>Teacher</td>
<td>Teacher</td>
<td>Teacher</td>
</tr>
<tr>
<td>School population</td>
<td>250</td>
<td>350</td>
<td>250</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>Town population</td>
<td>27,000</td>
<td>60,000</td>
<td>27,000</td>
<td>1,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Total schools</td>
<td>Elementary with multihandicapped</td>
<td>Elementary with language class</td>
<td>Two elementary</td>
<td>Elementary &amp; high</td>
<td>Elementary, middle, &amp; high</td>
</tr>
<tr>
<td>Caseload</td>
<td>50</td>
<td>22</td>
<td>50</td>
<td>25</td>
<td>45</td>
</tr>
</tbody>
</table>

*a A federal reading program for schools serving low-income families. *b This portion of Marla’s caseload was not examined. *c The language class was a daily afternoon primary class for students who were considered in need of intensive intervention from across the district. *d Dana’s caseload had been declining. A middle school was added to her caseload the next fall.
targets typically dealt with phonological processing, vocabulary, and connector words. She worked with the resource teachers. Typical language objectives and a comment on approach are presented in Table 2. Marla estimated that articulation cases made up only 10% of her non-multihandicapped caseload.

Marla described her approach as “modified Lindamood” (Lindamood & Lindamood, 1998). Marla recognized that her phonological processing intervention went beyond phonemic awareness. The training included auditory memory, phoneme and letter retrieval and manipulation, letter-sound correspondence, and phonetic spelling. Marla used the terms “auditory processing” and “auditory-perceptual,” but she attended specifically to speech sounds.

Children learned a vocabulary to describe phonemes (e.g., lip poppers, tip tappers), various sound-symbol representations, a vowel placement and symbol song, and a set of tasks to improve phonological processing. Phonemes were represented in nonsense words by colors, non-conventional graphemes, and phonetic spelling. Marla used careful data collection and systematic shaping, adding task complexity as mastery was gained at each level. Students worked on phonological processing with Marla for several years. The students observed appeared accustomed to and interested in the tasks.

Marla’s small therapy room had school-wide behavioral expectation posters and administrative procedure postings. The walls did not reveal her therapy activities. She did most of her instruction in the resource rooms.

Marla collaborated with the resource teachers, planning and carrying out units or individual activities outside the phonological processing therapy. Marla preferred to work with the resource rooms over the regular classroom, she said, because that is where the children received most of their academic instruction. The teachers’ thematic units allowed Marla to address a range of language goals: “They incorporate reading, writing, oral language, sequencing, everything.” The resource teacher was more specific, with “analogies, oral reports, organizing, learning to use connector words, that sort of thing.” A major part of the instruction was the “word-a-day” program. Using the school-wide high-frequency word list, Marla and the intermediate resource teacher required the students to bring in a written definition, a created item, or an object that represented the word. The words were read aloud, spelled, used with connector words in sentence construction worksheets, put in vocabulary books, and quizzed every 10 words.

Part of a unit was observed in the primary resource room. It was based on a trip that Marla was making to Guatemala. Marla showed the children photos, clothing, food, and toys. She asked them questions and answered theirs. In the next session, Marla read aloud a book on Guatemala, made some comparisons to the United States, and periodically asked the children questions. She and the primary resource teacher had a same/different activity planned for the third session. The primary resource teacher had worked with the children on an interactive writing letter to send with Marla on her visit to the Guatemalan children. Observation and file review indicated that data were not kept on the unit activities.

Marla considered herself centrally involved in reading and writing instruction, to the degree that she reported that all her language cases also qualified for resource services. When asked about children who might have significant oral language deficiencies without severe academic difficulties or without qualifying for resource services, Marla said that she did not come across these children.

### Kathryn: Basic Concepts and Semantic Knowledge

Kathryn taught an afternoon primary language class and a pullout morning caseload. She focused on basic concepts and semantic knowledge in both, with additional non-language activities occurring for the language class (Table 3). Kathryn placed a high priority on articulation and oral-motor intervention, at approximately 75% of her caseload.

Children qualified for the language class based on district-wide SLP recommendations (standards for determining this were not clear). Class size ranged as high as 12 but was 4 at the time of the study. The students either moved to that school or traveled each afternoon to the school for the class. They could be in a regular or a resource classroom in the mornings. The classroom aide had no special preparation in speech-language pathology but had worked with Kathryn for several years. She carried out some of the planning, instruction, and data collection. Her presence allowed Kathryn to see children individually in another room for oral–motor and articulation work while the class was in session.

Kathryn conducted the class like a regular classroom. The students had desks, recess, snack, show and tell, writing, arithmetic, and art. She planned her class activities around multiple intelligences (Gardner, 1985) and themes. Kathryn worked within a zoo theme. She had the students come up with animal characteristics, graph attributes, put up animal pictures, and discuss a favorite animal. Brochures, objects, and books were brought into the classroom to support the theme. Wall decorations also showed the zoo theme, with commercial materials and child

<table>
<thead>
<tr>
<th>Marla</th>
<th>Objectives</th>
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<tbody>
<tr>
<td><strong>I have made a judgment, over the years, that children who have difficulty in academic settings also have difficulty rapidly processing information. This includes not only retaining information presented in the classroom and following directions, but also the more finite skill of processing letter sounds and blends of sounds rapidly. This lack of skill, of course, interferes with spelling, reading, and writing.</strong></td>
<td></td>
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<tr>
<td>• Demonstrate “chunking” multisyllabic words to help her spell and read them.</td>
<td></td>
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<tr>
<td>• Given CVC multiple change combos, will perceive and spell changes.</td>
<td></td>
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<tr>
<td>• In structured language activities, will use &gt;45% complex/compound sentences.</td>
<td></td>
</tr>
<tr>
<td>• Use new vocabulary word in a (complete) sentence that indicates understanding.</td>
<td></td>
</tr>
</tbody>
</table>

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**Table 2.** Phonological processing and “word-a-day” program.
work samples. Reading activities included matching word cards to pictures and phonics computer activities. Writing consisted of one 30-min session each week, which the aide generally conducted. It involved drawing a picture and dictating or writing a sentence with minimal instruction:

JL doesn’t always remember periods, he doesn’t always remember capitalization. And so then we’ll talk to him about those sort of conventions. The others are just too young. KW is also an OT kid, and so we talk to him about spacing and holding his pencil.

For the language part of Kathryn’s instruction, targets involved following directions, basic concepts, semantic knowledge, sentence comprehension, and written sentence construction. She worked on labeling, categorizing, antonyms, and object functions. She started with comprehension and moved to expression as mastery was gained. In the class, the instruction was observed as individual seatwork or group responses to questions or instructions. Data were collected on these language activities, not on language work or group responses to questions or instructions. Data collection was limited across children but modified her prompting, pacing, and expectations for each child. Data collection was limited to listing the task and items as correct or incorrect. Kathryn’s language intervention outside the language class had similar language targets to her class. She did not use the theme units because she said she did not find them an efficient use of time for pullout children. Kathryn was observed to teach these children individually through picture cards, verbal cueing, multisensory channels, and physical movement.

Kathryn did not work directly on phonemic awareness but recognized that it occurred incidentally as part of her articulation and oral–motor work. Her articulation approach emphasized sound awareness: Kathryn organized her articulation therapy along the Lindamood phoneme sequencing program (LiPS; Lindamood & Lindamood, 1998) lines, starting with sounds that the children could already articulate. Besides building success and rapport, she said, “I believe that this tunes them into their own speech, gives them practice, and builds motoric and sound awareness and what’s going on inside their mouth for the point at which you get to a sound they can’t say.” Kathryn ran her class and pullout sessions with little collaboration with other teachers. Kathryn went into kindergarten classrooms on occasion and taught whole-group lessons on listening postures and strategies. She said that she had a whole program of 20-min lessons with cooperative learning activities.

Although reading and writing occurred in the language class, Kathryn did not consider that she provided direct instruction in those domains. She considered that she was laying the oral language foundation necessary for literacy success: “I do not teach reading, I do activities that support the reading process. I think those are, for those kids who need it, the articulation therapy, sequencing activities, patterning, the sound symbol relationship activities.” She said that she felt qualified to teach reading and that she would use the LiPS program if she were asked to teach it.

Kathryn was asked about the high proportion of articulation cases as compared to language cases. She said that she had wondered about this because she knew the proportions were the opposite in many schools. She said that she just did not get many language referrals and was sufficiently busy with the articulation cases.

### Lulu: Vocabulary and Grammar Within Thematic Units

Lulu organized her intervention around repeated opportunities in thematic units drawn from curriculum materials. Lulu’s objectives dealt mainly with language at the sentence level and below: vocabulary, semantic knowledge, and sentence structure (Table 4). Student relevance was a major concern for Lulu. Lulu’s articulation cases made up 40% of her caseload.

Lulu embedded all of her language and articulation objectives into the units. Lulu’s thematic units arose out of classroom materials but were not linked to specific classrooms. They were based on story topics such as Snow White and the seven dwarves for younger students and social studies topics such as colonial times for older students. There were a variety of activities within each unit, such as cooperative story writing, crossword puzzles, board games with semantic and sentence construction questions, answering questions after listening to literature, and writing a story retell. The units were fairly similar and the children showed familiarity with the activities and expectations, allowing for repeated opportunities and scaffolded learning. Lulu took care to transition between units, showing the relevance and links between the U.S. Constitution and colonial times. Lulu asked similar questions across children but modified her prompting, pacing, and expectations for each child. Data collection was limited to listing the task and items as correct or incorrect.

Lulu related therapy to topics and activities in the classroom. The students showed bridging with spontaneous comments such as one child saying that he knew the word “blacksmith” because he was one in a recent class play. Lulu took her students’ accomplishments to the classroom: They prepared speeches on units and presented them in several classrooms. Lulu emphasized student relevance repeatedly. She described how she had stopped working on

<table>
<thead>
<tr>
<th>Table 3. Basic concepts and semantic knowledge.</th>
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<tbody>
<tr>
<td><strong>Kathryn</strong></td>
</tr>
<tr>
<td>I often will start with listening comprehension kinds of things, I like to use picture cards, build up labeling skills first both receptively and expressively. From there I usually go through to categories and then within categories, do comparisons, descriptions, and associations. And just kind of move along a continuum that way in my mind.</td>
</tr>
</tbody>
</table>

- When presented with pictures or objects, will point to one named.
- When presented with pictures or objects, will describe using at least three critical elements (function, size, parts etc.).
- Identify categories of objects and/or pictures.
- Demonstrate understanding and use of concepts: starting, other, alike, always, center, medium-sized, half, left, right, third, pair.
articulation for one boy who was resistant because it was more important to work on language and “to keep him in school, passing his subjects.”

I really feel that what we’re doing with kids should be very relevant... I want them to be able to go back to the classroom and say, “That was worth it, I learned something.” And, you know, I see evidence of that. They’ll come back to me and say, “I heard the word constitution.”

Lulu did not target phonemic awareness. She recognized that it was a current clinical topic but she did not see how she could work on phonemic awareness in a way that showed the children the immediate application of it.

Lulu provided services in a pullout arrangement, with self-contained units. She worked in a small speech room that had minimal postings revealing her activities. Lulu considered herself collaborative and curriculum-based through informal communications with teachers (“I’d say we do a lot of informal working together”), awareness of the curriculum and district standards, and use of classroom materials.

Lulu did not believe that she should be working on reading and writing directly (Do you teach children to read? “No. I wouldn’t want to do that.”). Lulu frequently used print materials. She read aloud or wrote for the children fairly often, but the children’s products were primarily oral. She viewed oral language instruction as valuable in itself and expected improvement to generalize to the children’s written work.

Dana: Discourse Through Literature Units

Dana provided her instruction through units based on children’s literature. Dana focused on expression and comprehension of oral narrative and expository discourse (Table 5). She also frequently provided curriculum assistance. Dana’s articulation caseload was approximately 20%.

The literature-based units were where Dana did most of her work. “I have always been a huge fan of literature units. I believe literature units help me address the [district] standards for the language arts very easily.” She went on to describe the many language and speech goals she could address and emphasized how she varied the unit activities depending on the situation. She said, “It is not cut and dried and it forces me to be the therapist to explore and develop lessons that meet the needs of my kids,” and, “By the time you’re done, you can look back and you’ve covered a lot of skills.”

Dana embedded vocabulary, text comprehension, critical thinking, word generation, semantic knowledge, and story structure into her units. In book discussions, she addressed author voice and word choice. She said that she used word generation and chunking activities as strategies to organize thinking. A unit that Dana developed based on a chapter book, Stone Fox (Gardiner & Sewall, 1980), came out of an intermediate grade curriculum on the Iditarod and sled dogs.

For a book of that size, I would read a chapter, we would talk about the summary…. I would choose vocabulary from the story based on what I thought that student might not understand.... Sometimes I have them write with the vocabulary, sometimes I just have them talk about the vocabulary.... We make predictions…. I will try and do a Bloom’s taxonomy [Bloom, 1993] where I’m looking at if they just comprehend, but they can’t elaborate on any information.

Dana used a lot of visuals such as story maps, semantic webs, and charts. She described how she would center a word like “click beetle” and place verbs around it to provide the structure for a sentence. She was observed mapping out story grammar structure with students. Dana incorporated computer visual support into her thematic units. Dana described students composing individual slide shows starting with a handwritten storyboard that was illustrated and typed or recorded on the computer and then shared with their classmates.

The therapy room showed evidence of Dana’s activities, with story grammar charts, writing composition and punctuation reminders, thematic decorations, and a white board with the most recent session’s visual supports. Dana also did separate “auditory work” using workbooks with
exercises on paragraph comprehension and following directions: “I’m not ever gonna be called a workbook ditto queen or anything like that, but I’m certainly not afraid to use a workbook that I think is valid.”

Dana addressed phonemic awareness incidentally. She recognized that “my little artic’ers probably have some better phonemic awareness skills than your good average kids just because of the drill and practice.” She used parts from the LiPS materials but freely adapted and embedded within other activities. She described how she might take a word like “top” from a story and ask how many sounds could be heard, break it up, then represent it with colored objects and add a sound. She said, “I would change my approach on phonemic awareness depending on the student. You know, it’s never the same.” Dana described it as a sponge activity that occupies a few minutes of transition time.

Dana coached students on oral presentations and attended the class when the students presented them. She occasionally provided in-class assistance. For a fifth grader in science, Dana said that she sat next to the student in the lecture, whispering in his ear, assisting, and keeping him organized. Dana also moved from her target student to other students or worked with the entire group in a group activity. Dana also assisted in classroom projects in the pullout setting. She worked with the resource teachers on projects. The primary focus was completing the task rather than teaching skills. She said that she had difficulty working on both objectives and classroom work.

Sometimes it does take three adults to get one child through a research report and presentation…. Many times I am helping the resource room teacher or the regular classroom teacher or all of us helping a student research, take notes, develop an outline, get it on paper, and then sometimes even type the final project.

Dana characterized her practice as working primarily on oral language—speaking and listening: “[Writing] is more of a vehicle to address language and give the kids an auditory break.” She also said that she did not work directly on reading, but she did a lot that supports reading instruction. Dana said that she considered her place to be “anywhere there is language, whether it’s oral or written” and that she would use any mode of expression.

**Chris: Organization and Comprehension Strategies Through Classroom Texts**

Chris emphasized strategy instruction and working through oral language to impact written performance. Chris focused on narrative sequencing and comprehension strategies in activities that were close to or part of the curriculum, as well as phonemic awareness (Table 6). Chris estimated that articulation cases occupied approximately 40% of her caseload and she considered it a critical and unique contribution for SLPs.

Despite its priority, Chris spent considerably less than 40% of her time on articulation. Chris saw the students in groups of 8 to 12 on a particular sound. She maximized productions through pairs and activity centers, with the students trained on data collection. She roamed among the students, monitoring behavior, eliciting productions, and collecting data. For her master’s thesis, Chris had done a comparison of individual and group intervention and had established that the two approaches took the same length of time to achieve conversational level success, so she felt confident in her approach.

In her language intervention, Chris worked a lot on text comprehension. Students listened to or read narrative and expository materials. The students typically brought their classroom texts to the sessions. Chris taught the students to self-question on summarizing, predicting, questioning, and clarifying following procedures from the research of Palincsar and Brown (1984). Chris took data on the correctness of the response and often had notes on the prompting required. Chris was emphatic that her role was strategies, not academic content.

My regular LD kids, we work more on comprehension because they just don’t understand what they read and they don’t understand when the teacher’s giving a lecture, or when the teacher’s giving an explanation. They just miss it all. They miss the vocabulary, they miss the content, they just miss everything.

Chris also worked on expression, with sequenced and elaborated narrative and expository retellings. She said that she did not do much story creation because of time limits. She said that she worked more on narrative with the younger children and moved into exposition with the older ones. Chris’ vocabulary instruction reflected her focus on the use of language:

I hardly ever write a goal just for vocabulary anymore…. But I do write goals that say something about using more descriptive words or using descriptors while…the student is orally rehearsing narration or something that he’s going to write or that he just wrote or that he just read. So I feel like the vocabulary is kind of embedded in that reading and writing process.

Chris’ room was decorated thematically and with articulation activities (e.g., rockets with children’s names traveling upward from “say my sound by itself” to “in conversation.”). She said that her March “speech beach” theme made the room more appealing for her and the

| Table 6. Organization and comprehension strategies through classroom texts. |
|-----------------------------|-----------------------------|
| **Chris**                   | **Objectives**              |
| They just don’t understand what they read or when the teacher is giving a lecture or an explanation……. I use reciprocal teaching and the study strategies from Palincsar…. I use the classroom textbooks. |
| I hardly ever write a goal just for vocabulary anymore…. But I do write goals that say something about using more descriptive words while the student is orally rehearsing narration or something that he’s going to write or just read. |
| • Orally summarize a textbook paragraph. |
| • Sequence elements of a personal event retell. |
| • Use nouns and adjectives, and reduce vague vocabulary, while orally narrating story read prior. |
| • Identify and label first, middle, and last sounds of CVC words. |
students. She sometimes used the room theme as a topic for constructing descriptive sentences.

Chris taught phonemic awareness in a loosely structured shaping approach, moving from rhymes through first and last sounds to segmentation, deletion, and substitution. Chris said that she had a sequence she went through with every child and that she wasn’t comfortable working on just one task. She also embedded phonemic awareness in reading activities: “We’ll often look at books and literature and poems and we’ll talk about parts...let’s take this word and take it apart and make up a new word.”

Chris visited classrooms to observe or help a child complete an assignment. She also spoke informally to the classroom teachers about the caseload children, curriculum content, expectations, activities, and materials. Chris said that teachers knew exactly what the student needed, “such as being able to write a story with a beginning, a middle, and an end, and having characters, punctuation and at least four sentences.”

Chris sometimes helped complete class projects, although she didn’t consider it part of her objectives work and did not take data on it. She was observed helping on a shark report over several sessions. Chris watched the class, talked to the teachers, sat with the targeted student, and then worked with the student over the next two sessions. Chris talked the student through her note facts, seeing whether it made sense, grouping the answers, and previewing what the student needed to do next. In the session, she worked with the student on creating a coherent multiple paragraph report from her collected and grouped note facts.

Chris also provided in-class and pullout noncaseload services. She taught a weekly kindergarten lesson on a variety of topics. She was addressing phonemic awareness at the time of the study. Chris also had low-average first graders working independently on the Earobics (Cognitive Concepts, 1999) program and took data on their phonemic awareness progress. These children were seen simultaneously with her regular caseload.

Chris considered that her role was to develop reading and writing skills through the oral modality, focusing on underlying strategies. She worked with print materials but instruction occurred through oral exchanges. She expected generalization of skills such as oral discourse organization to similarly structured written discourse.

**DISCUSSION**

**Therapy Targets**

Language can be broken down into many parts in many ways. The 5 SLPs addressed some aspect of form, content, and use. Form was addressed in terms of sentence or discourse structure. Content occurred as vocabulary, sentence, and discourse meaning. Academic–cognitive uses of language predominated over social–conversational uses. Table 7 summarizes how each SLP addressed six areas of language: vocabulary, morphosyntax, comprehension, discourse structure, phonemic awareness, and spelling and decoding.

Aspects of language were conceived and addressed in quite different ways. For example, vocabulary was a common instructional objective that took different forms for each SLP (Table 7). Vocabulary for Kathryn meant primarily “basic concepts” such as spatial, directional, and time words and semantic knowledge tasks such as same/different, categories, and functions. Marla taught from a school-wide list of high-frequency vocabulary. The vocabulary items were unrelated to each other or any larger context. They were learned through definitions, sentence use, and illustration. Vocabulary for Dana were the technical words needed to explain story structure such as episode or complication, and the words arising from the chapter book discussions. They were understood and used in analyzing stories, comprehending stories, and constructing reports.

Morphosyntax was one area that was fairly similar across the SLPs. Few structures were taught specifically. Instruction consisted mainly of eliciting and correcting sentences that were produced when demonstrating vocabulary use. Marla was the only one to list a structure objective, which was compound or complex conjuncted sentences, in worksheet drills.

Only 2 of the SLPs directly targeted phonemic awareness. However, Kathryn and Dana recognized that they taught it incidentally through articulation and Dana taught it informally in the language sessions. Kathryn’s high proportion of articulation cases meant that a good number of her students would receive incidental phonemic awareness instruction.

Language has long been recognized as being integrally involved in literacy, but explicit instruction in print decoding and encoding (spelling) is a more recent concern. Only Marla formally addressed word decoding, nonsense and real (e.g., “What word does BAT say if I change it to MAT?”); and spelling, phonetic and conventional (e.g., “Let’s look at words with a silent E.”). However, all 5 SLPs addressed literacy as a broad concept enveloping the multiplicity of skills involved in reading and writing. They emphasized the necessity of a strong oral language foundation for successful reading. They worked on content and form within the oral modality with the expectation of transfer to written work. Chris’ text comprehension strategies were drawn directly from reading research. All of the SLPs used print materials to some degree in their instruction, with print varying from nonsense words to discourse units. Written materials were used as tools to develop oral language (e.g., “Let’s read this story together and talk about it,” or, “Tell me what to write for your story.”). Incidental correction of spelling and punctuation occurred for the SLPs assisting in written projects.

**Service Delivery**

The SLPs provided primarily individual and small-group pullout intervention. Dana provided some in-class assistance. She and Chris assisted in classroom projects as needed. Both Dana and Chris visited classrooms frequently. Marla often co-taught with the resource teachers. Lulu’s and Kathryn’s practices were both self-contained, but Lulu’s units were drawn from curricular materials and
Kathryn’s curriculum was somewhat modeled on classroom practice. Inclusive service delivery has been recommended in the literature for some time now. However, SLPs struggle with how to make it effective (Beck & Dennis, 1997; Ehren, 2000), and evidence is still lacking that it provides greater language benefits than pullout instruction (Lindsay & Dockrell, 2002). These SLPs chose to teach what they considered to be educationally relevant intervention in settings where they could provide focus and repeated opportunity. Their practice was consistent with the large majority (90%) of school SLP practices reported in Sanger, Hux, and Griess (1995).

Therapy Methods

Two teaching methods were discernible: discrete and contextualized skill intervention (Nelson, 1995; Ukrainetz, 1998, 2006). Discrete skill intervention is the traditional structured approach where a skill is taught initially in a very simple, controlled context. As mastery is achieved, contextual complexity is gradually increased. In contrast, in contextualized skill intervention, learning begins and remains in a complex, purposeful task with considerable support from the SLP. As competence is achieved, support is gradually withdrawn.

Marla and Kathryn primarily taught discrete skills in simple, structured contexts. They used increasing task complexity to develop skills in their main focus areas. In her instruction with color and letter blocks, Marla demonstrated a systematic shaping procedure in which she carefully increased task complexity based on student responses. Kathryn taught shape names, asking the student to identify exemplars from throughout the room and discussing how they were or were not representative. She taught one shape at a time to mastery, in comprehension, then in production. Data collection for both SLPs indicated task difficulty as well as number correct.

Lulu, Dana, and Chris primarily used contextualized instruction, where multiple skills were addressed in repeated opportunities during complex, purposeful activities. Lulu used structure and routine to support her instruction. Her social studies and story units had a typical structure and array of activities. She previewed and reviewed activities and learning objectives. She embedded questions and expected forms of response (e.g., “Tell me that again in a full sentence.”) into the activities. She provided prompting and expectations appropriate to each student in a group. Dana’s work was less structured, embedding skills in literature discussion. Dana taught story grammar analysis with chapter books. The students also had to summarize, ask questions, and predict from the materials. Chris taught comprehension strategies through classroom texts and story structure through children’s literature. She modeled the questions, had students ask the questions with her support, and gradually reduced the support. Chris also noted the nature of the support provided in addition to the correctness of the response.

The contrast between discrete skill shaping and embedded skill scaffolding was evident in SLP reactions to prompting. Marla provided approximately six prompts to one third grader in the 20-min lesson. Dana provided more than a dozen prompts in her story grammar lesson to a fifth grader in the same time. Marla commented that she had provided too much help and that she would use an easier task in the next session. This contrasted with Dana, who commented that she had provided a lot of help, but this was the student’s first time and performance would get

**Table 7. Summary of SLP approaches to teaching aspects of language.**

<table>
<thead>
<tr>
<th></th>
<th>Marla</th>
<th>Kathryn</th>
<th>Lulu</th>
<th>Dana</th>
<th>Chris</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary</td>
<td>high frequency</td>
<td>basic concepts &amp; semantic</td>
<td>thematic unit words</td>
<td>story grammar &amp; words from</td>
<td>descriptive &amp; specific words</td>
</tr>
<tr>
<td></td>
<td>word definitions &amp; sentences</td>
<td>knowledge</td>
<td></td>
<td>literature</td>
<td>in narratives &amp; explanations</td>
</tr>
<tr>
<td>Morphosyntax</td>
<td>vocabulary &amp; conjunctions</td>
<td>incidental oral correction</td>
<td>vocabulary used in oral</td>
<td>vocabulary used in oral</td>
<td>noun phrases in oral</td>
</tr>
<tr>
<td></td>
<td>in sentences</td>
<td></td>
<td>sentences</td>
<td>sentences</td>
<td>sentences</td>
</tr>
<tr>
<td>Comprehension</td>
<td>word definitions &amp; sentences</td>
<td>answer wh- qns &amp; follow</td>
<td>answer wh- qns on exposition</td>
<td>answer taxonomy qns on</td>
<td>oral summaries &amp; ask/answer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>directions on vocabulary</td>
<td>&amp; narration</td>
<td>exposition &amp; narration</td>
<td>questions on exposition</td>
</tr>
<tr>
<td>Discourse</td>
<td>oral presentation</td>
<td>show &amp; tell</td>
<td>oral presentation</td>
<td>story grammar; oral</td>
<td>story sequence; oral</td>
</tr>
<tr>
<td>structure</td>
<td></td>
<td></td>
<td></td>
<td>presentation</td>
<td>presentation</td>
</tr>
<tr>
<td>Phonemic</td>
<td>LiPs</td>
<td>incidental in articulation</td>
<td>—</td>
<td>incidental in articulation &amp;</td>
<td>sequenced set of tasks</td>
</tr>
<tr>
<td>awareness</td>
<td></td>
<td></td>
<td></td>
<td>language</td>
<td></td>
</tr>
<tr>
<td>Spelling &amp;</td>
<td>nonsense &amp; real words</td>
<td></td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>decoding</td>
<td></td>
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</tr>
</tbody>
</table>

*Note. LiPs = Lindamood phoneme sequencing program (Lindamood & Lindamood, 1998).*
better with increased familiarity in subsequent lessons. The two SLPs structured their supports consistent with their intervention approach: Discrete skills teaching involves structuring the task to allow near mastery at each level, whereas the embedded approach involves social support to accomplish a complex task.

SLP Choices

The 5 SLPs had distinctly different emphases and organization to their language instructional practices. Three main approaches were apparent: phonological processing and word decoding, basic concepts and semantic knowledge, and discourse-based instruction. Marla and Kathryn were very different in their emphases: phonological processing versus vocabulary knowledge, but similar in their structured discrete skill instruction. Lulu, Dana, and Chris could be considered to teach skills with discourse materials, but they had different materials and emphases within that broad approach.

The SLPs were similar in their explanations of “language.” They described it either as form, content, and use or as syntax, pragmatics, and semantics. They listed purposes of language such as understanding information, asking for further information, and elaborating on answers, and saw it as being involved in all aspects of schooling. Despite this similarity, they made different choices about parts of language and how to address those parts.

The SLPs were asked why they used the approaches they did. All of the responses involved “starting with the needs of the child” and doing what mattered most for academic success. Comments also addressed time constraints, such as having insufficient time to address narrative creation (Chris) or use themes in pullout (Kathryn). After the SLPs had read a draft of this article, they were asked to critically consider the other approaches (“Why don’t you do X instead of Y?”). They did not respond with reasons why they didn’t like the other approaches, instead reiterating what they liked about their own approaches. In the course of the observations, there were incidental comments such as Lulu saying that she did not see the immediate relevance of phonological awareness, Chris saying that she did not want to work on vocabulary out of context and purpose, and Chris saying that she had tried LiPs in the past but considered that it took too long and had too little generalization. However, the emphasis was much more on why each liked to do what she did.

Were the SLPs justified in their intervention choices? All of the targets fell within SLP scope of practice (ASHA, 1999, 2001). “Child need” does not guide choice of approach well—multiple needs are typically present and can be addressed in a diversity of ways. There is research evidence or current textbook support for significant portions of all of the therapy approaches presented. For example, Ellis, Schlaudecker, and Regimbald (1995) showed significant basic concept progress in a multisensory teaching approach, supporting that aspect of Kathryn’s program. Phonemic awareness, phonics, and LiPs all have treatment efficacy evidence (Catts & Kamhi, 1999), supporting Marla’s program. There is evidence that the comprehension strategies used by good readers can be taught to poor readers, and the approach of Palincsar and Brown (1984) has particularly impressive results. Current language intervention texts recommend embedded skill interventions using themes, literature, and classroom texts (e.g., Merritt & Culatta, 1998), supporting the discourse-based approaches of Lulu, Dana, and Chris.

The approaches definitely reflected differing theoretical orientations (c.f. Fey, 1986; Lahey, 1988). Those who adhere to a communication–language orientation toward language disorders would disagree with the utility of LiPs instruction. Those who support teaching language in context would disagree with teaching vocabulary and grammar through worksheets. Those who favor discrete skills in highly controlled contexts would be uncomfortable with literature or classroom texts. However, the best theoretical approach has not yet been established.

Gillam, Crofford, Gale, and Hoffman (2001) suggested that there is much unknown about the effectiveness of different types of intervention and the factors that contribute most to success. Gillam et al. suggested that the specific approach may not be as critical to an outcome as factors such as treatment intensity, repeated presence of stimuli across language levels, combinations of vertical and horizontal goal attack strategies, and means of maintaining engagement and accuracy.

Each SLP provided many of the factors described by Gillam et al. (2001). Each also missed opportunities. The most common “miss” was when students were engaged in interesting activities without a clear therapeutic purpose. For example, Marla engaged her students in a discussion about Guatemala, sharing photos and objects from the country. There were questions and answers about the materials but no provision of explicit instruction, repeated opportunities, strategic support, or data collection for a particular skill. Kathryn had the opportunity for several hours of daily language intervention. However, she limited her therapy to discrete skill instruction during a brief “language time” rather than embedding language instruction in the many other activities occurring in her classroom.

The SLPs who favored contextualized skill approaches still showed a lack of skill focus when assisting students to complete the more complicated teacher-assigned reports. Dana and Chris both assisted students throughout the writing process, from rough draft to finished presentation. However, they did not teach particular skills within those activities. Dana commented on the difficulty of addressing therapy objectives when the focus was on task completion. This is an ongoing challenge in language intervention: how to be therapeutic while maintaining naturalness (Ukrainetz, 1998, 2006).

SLPs can make many reasonable choices concerning therapy targets, procedures, and contexts. Because most choices can be justified, the focus should be more on the quality of the therapy. Does the SLP present a theoretically coherent approach or a random eclectic mix? Does the SLP analyze how to teach a skill within a task? Is skill learning highlighted and supported? Does she start where the child is and carefully scaffold or shape the child into competence? Is time on task maximized? Are the sessions...
frequent and focused enough for learning to occur? These are the types of questions that should guide reflection and research on language intervention. Controlled investigations of the factors that best predict intervention effectiveness, and qualitative investigations of how language intervention is enacted, will both contribute to improving the effectiveness of language intervention with school-age children.

CONCLUSION

This study examined the language intervention practices of 5 school SLPs in Wyoming. Three major profiles were manifested: phonological processing and word decoding, basic concepts and semantic knowledge, and discourse-based intervention. Three subtypes of discourse-based intervention, varying on the size of the language unit and the activities used, were present. Literacy was addressed broadly, aiming for improvement in reading and writing through oral language instruction and the use of print materials. One SLP taught word decoding and spelling directly.

The SLPs delivered primarily pullout individual and small-group intervention. Two of the SLPs taught language in structured, discrete skill tasks, with gradually increasing complexity. They tended to lack therapeutic elements when they engaged the children in more naturalistic activities. Three of the SLPs taught primarily by embedding language skills in complex, purposeful activities, with gradually reduced scaffolding. They had difficulty being therapeutic when assisting students with curriculum assignments.

Across these 5 practitioners, many school SLP practice possibilities were covered. However, no 1 SLP did it all. Even within one aspect of language, such as vocabulary, instruction given by 1 SLP was different from that provided by another. Each SLP presented a fairly constrained and coherent treatment approach. The therapy choices generally fell within recommended and evidence-based practices, but each SLP made different choices of what to work on and how to do it.

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Contact author: Teresa Ukrainetz, Division of Communication Disorders, Department 3311, 100 East University Avenue, University of Wyoming, Laramie, WY 82071. E-mail: tukraine@uwyo.edu