Teaching Expository Comprehension Skills in Early Childhood Classrooms

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Abstract

PURPOSE: This pilot project implemented and evaluated a theme-based unit designed to teach expository comprehension skills to young children in four preschool classrooms.

METHOD: The program and the unit were collaborative efforts of speech-language pathologists and early childhood educators. Within topically related units, 71 children ages 4;1 to 5;0 engaged in first-hand experiences related to narrative texts, adapted expository texts, and mapping tasks within large group, small group, and class routine contexts. Data sources consisted of expository compare/contrast and problem/solution tasks, classroom observations, teacher and parent interviews, and parent surveys.

RESULTS: During instruction most of the 71 participating children made gains in mapping compare/contrast texts and retelling problem/solution texts. They spontaneously applied problem/solution strategies in non-instructional settings. Teachers and parents reported that children were motivated by and engaged in the playful but systematic instruction.

DISCUSSION: While there were limitations in the study, results suggest that preschool children are able to benefit from expository instruction that is explicit, purposeful and focused on topics of natural interest to young children. The study should be replicated with refined measures and a more diverse population.

Key words:
Collaborative service delivery, early literacy, engagement, explicit instruction, expository instruction, expository comprehension, expository concepts, integrated instruction, mapping of expository texts, theme-based instruction, preschool instruction.
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Comprehension of informational texts and content learning are vital to children’s eventual academic success. If activities are relevant, interesting, and engaging, young children are capable of beginning to develop some of the mental processes and thinking patterns that will influence future comprehension and learning. The results of studies have led researchers to conclude that young children are capable of comprehending expository texts and can benefit from exposure to and instruction using them (Caswell & Duke, 1998; Duke, 2000; Duke & Kays, 1998; Moss, 1997; Pappas, 1993). If they do not feel hurried or pressured and if they receive individualized scaffolding and support, children with language deficits and disabilities can also participate and benefit from the early intervention. Thus expository text instruction should have an important presence in early childhood education programs (Duke, 2006). However, speech-language pathologists (SLPs) and teachers working in early childhood settings have not traditionally collaborated to provide such learning experiences.

To explore implementation of expository comprehension instruction with young children, we piloted an instructional program consisting of developmentally appropriate activities targeted to develop early literacy skills in four early childhood classrooms. This article presents relevant literature and gives methods, results, and discussion of the pilot study.

REVIEW OF LITERATURE

As background for understanding the program, this review of literature will delineate the importance of providing early expository instruction, discuss the current role of expository instruction in early childhood classrooms, review effective practices in dealing with expository texts with young children, and explain some of the issues and advantages involved with teacher-SLP collaboration.
Importance of Providing Early Expository Instruction

Researchers and educators are aware of the importance of early instruction preparing young children for expository texts (Duke, 2006). Good comprehension skills for expository texts are vital to learning and contribute to success in school (Pearson & Duke, 2002; Seidenberg, 1989). But preparation does not need to wait until expository text comprehension becomes critical. Current studies indicate that young children are capable of learning from expository texts (Duke, 2000; Pearson & Duke, 2002; Williams, Hall, & Lauer, 2004) and that they benefit from the direct teaching of expository text organization (compare/contrast, problem/solution, sequence, description) (Hall, Sabey, & McClellan, 2005; Williams et al., 2005; Williams et al., 2004; Williams, Stafford, Lauer, Hall, & Pollini, 2009).

Preschool children who do not obtain adequate pre-literacy skills, including text comprehension skills, are at risk for future literacy problems (Justice, Invernizzi, & Meier, 2002; Snow, Burns, & Griffin, 1998). Support for preparing children in preschool classrooms with some skills and dispositions for comprehending expository texts has a solid rationale: to capitalize on student interests, to develop language skills and capabilities, and to build further cognitive strengths and abilities.

Interest and motivation. Some research has shown that expository texts can facilitate learning because they capitalize on children’s interests and background knowledge (Caswell & Duke, 1998; Pappas, 1991; Pappas, 1993), giving children a way into literacy that they may not find in narratives (Caswell & Duke, 1998). Studies of children’s responses to informational book reading have indicated that young children have an interest in expository texts, the ability to apply information to other contexts, and the capacity to acquire literacy skills from informational writings (e.g., books, lists, science experiments, and letter writing) (Maduran, 2000; Caswell, & Duke, 1998).
**Language development.** Several researchers have found that early exposure to or instruction using expository texts can increase comprehension, memory, and recall of important text information in young children (Duke & Kays, 1998; Moss, 1997; Pappas, 1993). This is evidence that early instruction can impact children’s capacity to use language to acquire knowledge and comprehend connected texts. When working with expository texts, children are using language to acquire more language and to gain information--processes that support additional language learning.

During book reading, language exposure and practice are influenced by the type of text that is being read. Price, van Kleeck, and Huberty (2009) showed that parents who used expository book sharing activities with their children used higher level feedback utterances, along with differential language (including longer extratextual utterances and significantly greater vocabulary diversity) than the language they used with storybooks. Equally important were the findings from the children, who used increased rates of feedback utterances and more utterances with higher levels of cognitive demand (see van Kleeck, 2003; Blank, Rose, & Berlin, 1978). Price et al. (2009) summarized that the text genre can thus alter the content, vocabulary diversity, and sentence length of both children and parents involved in book sharing opportunities.

If preschool children at risk for comprehension difficulties are not provided with early intervention affecting language development, they may struggle when they encounter comprehension tasks later in school (Catts, 1997), particularly when the emphasis shifts from learning to read to reading to learn, as expository texts become an important aspect of the curricula (Alvermann & Moore, 1991; Chall, Jacobs, & Baldwin, 1990; Otto & White, 1982; Westby, 1985).

**Cognitive skills and abilities.** Recent studies have shown that young children are more capable with expository texts than was previously thought. Children as young as kindergarteners are able to understand informational texts presented orally, identify important ideas, and imitate
the language and structure of expository texts (Duke & Kays, 1998; Moss, 1997; Pappas, 1991; Pappas, 1993). Explicitly teaching students expository skills, such as how to identify text structure, improves their comprehension of expository texts, even in the early grades (Hall, Sabey, & McClellan, 2005; Weaver & Kintch, 1991; Williams et al., 2004; Williams et al., 2005; Williams et al., 2009).

Empirical research supports the idea that kindergarten children can comprehend and imitate expository text structures. Studies that examined kindergarteners’ repeated retellings of narrative and expository texts indicated that these children were very successful in retelling informational texts and were just as successful in talking about the discourse properties of informational books as of stories (Pappas 1993; Pappas, 1991). They were able to sustain category classifications in informational books and able to acquire lexical knowledge through both kinds of texts. In a study by Duke and Kays (1998), kindergarteners were exposed to informational books for three months and were then evaluated on their pretend readings, which were found to include more frequent repetitions of the topical theme, more organizational patterns and language similar to the informational texts, more compare/contrast and classification structures, and more lexical terms associated with compare/contrast structures.

Work with first grade students has shown that expansion of skills related to expository texts continues. Moss (1997) conducted a study in which an informational text was read to first graders, followed by three response tasks: a retelling, a summary, and opinion questions—including a question designed to identify important information. The results indicated that young children were able to summarize text information, identify information they considered important, and provide opinions and rationales for those opinions. Moss hypothesized that early exposure would result in greater skill in understanding and learning from these expository texts.

Results of further studies have led not only to the conclusion that young children can comprehend expository texts but also to the recommendation that they be given exposure to and
instruction in using them (Caswell & Duke, 1998; Duke, 2000; Duke & Kays, 1998; Moss, 1997; Pappas, 1993). To maintain this awareness and competence, children need early and continual exposure and instruction (Pappas, 1991; Pentimonti, Zucker, & Kaderavek, 2010). Early instruction in expository text comprehension will prepare young children to successfully handle the more complex expository tasks they will encounter in the later grades. Skills must be firmly established so that children can recognize and use different types of expository texts (Alvermann & Moore, 1991; Pearson & Duke, 2002).

**Preschool Expository Instruction**

Although research supports children’s capability for comprehending and learning from expository texts (Duke, 2000; Hall, Sabey, & McClellan, 2005; Pearson & Duke, 2002; Teale, 2003; Williams et al., 2004; Williams et al., 2005; Williams et al., 2009) and of developing enhanced abilities through using these texts, only a few studies have addressed expository comprehension in the preschool population. A case study by Maduram (2000) worked with a child from age 3:9 to age 6:2 using multiple expository texts of gradually increasing difficulty. During the preschool phase of the study, the child responded to the books by asking questions, engaging in conversations, seeking to understand facts, and using informational book themes during play and conversation.

Although expository texts focused on informational content are not often introduced in preschool classrooms, they are informally encountered (Pentimonti et al., 2010). Preschool children are exposed often to simple expository texts in the form of classroom environmental print: e.g. job charts, labels for locating or putting away materials, and signs with class rules or procedures like hand washing.

More formal encounters with expository texts in many forms also occur in early childhood classrooms. Oral expository instruction takes place as teachers diverge from narrative stories to expand and elaborate background knowledge. Expository information is also common
as part of thematic units: Topics such as community workers, animals, and life in the sea are centered in informational content. Picture books about animals are often found in the classroom bookrack or “library” corner. Accounts of personal experiences are often used to convey some type of factual information: experience with a policeman or postman, responsibility for taking care of an animal. Teachers give oral explanations to convey a variety of information (e.g., why the children must walk to the bus with an adult, where milk comes from, etc.) Other informational or expository texts that young children encounter take the form of simple directions or procedures: a recipe, instructions for a game or craft.

However, early childhood educators are beginning to suspect that children are not encountering written expository texts frequently enough. In examining books used in classrooms, Moss and Newton (1998, as cited in Pentimonti et al., 2010) found that in preschool 82% of the texts read aloud to children were narratives, 13% were mixed narrative and expository, and only 4% were expository (Pentimonti et al., 2010). In a nationwide survey Moss (1997) found that none of the most frequently read books on any grade level were nonfiction. Going to the teachers themselves for clarification, Davinroy and Hiebert (1994) learned that teachers of young children seldom used expository books with their students. Teachers claimed that they did not know how to alter these texts or how to support young children’s comprehension of them. Accumulating evidence now suggests that this is a misconception.

Even preschool children can benefit from learning basic structural patterns such as compare/contrast (Dreher & Gray, 2009). Learning expository comprehension skills, such as the ability to recognize and reason with text structures, improves their comprehension of factual materials (Weaver & Kintch, 1991). Expository skills, like other literacy skills and capabilities, develop as a result of guided encounters with relevant texts. Substantial experience with a genre is necessary if knowledge of that genre is to develop (Duke, 2000; Dreher & Gray, 2009), including opportunities for reading, writing, and discussion (Duke & Pearson, 2002).
Thus deliberate exposure and explicit instruction are necessary; they should begin in preschool and be integrated into kindergarten classrooms.

Because there is a recognized need for expository preschool instruction, researchers and educators are suggesting ideas, strategies, and programs for how to provide this instruction (e.g., Moss, Leone, & Dipillo, 1997). These instructional strategies rely on or are similar to those that have been shown to be effective with intermediate grade children; however adaptations have been made to make tasks age appropriate, and the interventions need to be evaluated for their efficacy. Further research is needed to determine how preschoolers can be carefully, systematically, and effectively exposed to expository texts.

**Collaboration Between Speech-Language Pathologists and Classroom Teachers**

With the emphasis on education for all students generated by the No Child Left Behind legislation (2001), more children with language impairment and other disabilities are spending more time in inclusive classrooms and less time in pull-out programs; and more speech-language pathologists are going into those classrooms to assist them during class (Ritzman, Sanger, & Coufal, 2006). Thus increased collaboration—including positive communication and sharing—between teachers and SLPs is critical (Sanger, Hux, & Griess, 1995). In a policy document, the American Speech-Language-Hearing Association (ASHA; 2001) states that for literacy the responsibilities and roles of SLPs and classroom teachers are “essentially collaborative in nature.”

One of the central features of the current study was collaboration. The program studied was designed collaboratively by an experienced SLP and an early childhood teacher educator. Then it was implemented into a university laboratory preschool jointly by advanced candidates preparing for careers as preschool teachers or SLPs. In this way, a strong collaborative relationship was developed by the SLP and early childhood teacher educator and then modeled for the preservice teacher candidates and SLPs.
METHOD

Purpose

This article describes implementation and results of a 16-week pilot project designed to explicitly but playfully teach expository skills to young children in preschool classrooms. A pre-post design without controls was used to explore the feasibility of the intervention. We acknowledge that this non-experimental design has limitations in its ability to show efficacy of the intervention approach, but the work was designed primarily to illustrate ways in which SLPs and early childhood educators can work together in planning and carrying out instruction. The two purposes of the project were (a) to evaluate effectiveness of instructional practices involved in the theme-based unit and (b) to increase teachers’ awareness of how systematic and explicit instruction can be made engaging and relevant for young children. The second aim was chosen because systematic literacy-focused instruction had not been used previously in this preschool setting, and the work was viewed as a collaborative interdisciplinary personnel preparation activity.

Setting and Participants

The theme-based instructional unit was implemented as supplemental teaching in four preschool classes with two teachers, each of whom was teaching both morning and afternoon classes. The classes were part of a laboratory preschool program affiliated with a private university.

Teachers and students. Both of the classroom teachers held a bachelor’s degree and had more than 10 years of teaching experience. Both were well trained and experienced in developmentally appropriate practice. Their approach to literacy instruction had consisted of stimulating letter knowledge and concepts of print skills within language- and print-rich environments, but neither had followed a specific literacy program or had targeted language comprehension, particularly with expository text.
There were a total of 80 children in the four classrooms (approximately 20 in each), and 71 of those children participated in our pilot study. The children were between the ages of 4;1 and 5;0 years, with a mean age of 4;7. All were from middle class families and spoke English as their primary language. According to information provided by the classroom teachers and observations of an experienced SLP, one child was being monitored for a developmental delay, and eight children had noticeable phonological production errors. All children who progress slowly in early language and literacy development are not considered to have a disorder, and prevention practices can sometimes avert or lessen the severity of a disability (Justice 2006). Thus further testing was done to determine individual problems and possible interventions more accurately. Early literacy and language comprehension tasks were used to further discern students’ entering language/literacy performance levels and needs: 4 children performed poorly on the PALS (Phonological Awareness Literacy Screening; Invernizzi, Sullivan, & Meier, 2001), earning scores less than 5 on the rhyming and beginning sound assessments. These four children also performed poorly (scoring less than 5) on the two story comprehension tasks (question answering and retelling).

**Classroom setting.** The instructional unit was conducted at the laboratory preschool over a 16-week period, with 2 weeks spent on each of eight subunits. Each week consisted of four days of instruction (M-Th), with the teachers allocating certain times within the week for implementation of the supplemental unit by university student instructors (i.e., preservice SLPs and early childhood teacher candidates). The project directors considered the use of multiple classroom contexts to be important to implementation of a wide variety of activities (Culatta & Hall, 2006), so the teachers gave permission to the project instructors to access large and small group instruction time, as well as classroom routines (transitions and snack). During each week, class times available for the unit included (a) two 15-minute large
group sessions, (b) daily small group centers, (c) two transitions from large group to centers per week, (d) one small group literacy rotation, and (e) twice weekly snack and transition times.

Unit of Instruction

A 16-week unit entitled *People and Animals Living Together* dealt with various relationships between people and animals. Within the broad unit theme were eight 2-week subunits dealing with some ways in which people and animals impact each other. The subunit themes consisted of such topics as animals helping people, people helping animals, animals living in the right places, people giving animals what they need, animals and people fulfilling their needs to sleep and eat, and people knowing which animals make good pets.

Expository texts and structures were included throughout the topics and subtopics. For example, the unit on the right places to live contrasted places that are good for animals and/or people to live and addressed how a person’s or animal’s living situation has to meet particular needs. Texts and lessons dealt with problem solving (e.g., finding appropriate living situations for some animals) and comparisons (e.g., discerning similarities and differences in animals’ and people’s needs).

Unit planning and implementation. As the unit was to be conducted as supplemental instruction in university laboratory preschool classrooms by pre-service SLPs and early childhood teacher candidates, planning and implementation were collaborative across disciplines and professions (see Ritzman, Sanger, & Coufal, 2006; Sanger, Hux, & Griess, 1995; ASHA, 2001; Bauer, Iyer, Boon, & Fore, 2010). The unit was initially co-planned by two university professors/researchers, one in speech-language pathology and one in early childhood education (the first two authors).

After the unit was planned, it was approved by the classroom teachers and later refined with input from the university student instructors. The student instructors and university faculty met periodically to further plan the unit and refine the lessons. The classroom teachers set up
mechanisms for the classroom delivery and shared in supervision of the student instructors. Additionally, the teachers participated in evaluating the program and in planning a parent literacy night during which the program was shared with the children’s parents. The teachers were present during all unit instructional activities and provided feedback when requested.

**Instructional activities.** The unit on people and animals living together drew upon several different types of instructional activities. These activities were implemented to support children’s understanding of expository content; they included relating text to children’s prior knowledge and experience, dramatizing texts, telling personal accounts, teaching key concepts and vocabulary explicitly, presenting expository texts aloud, mapping conceptual relationships, and providing concrete hands-on experiences.

**Relating to prior knowledge and experience.** An important aspect of the early expository unit was the introduction to new content. The pre-service teachers and SLPs introduced the topics within the subunits in ways that related content to the children’s prior knowledge and experience and added emotional appeal. As Barnes (2008) has stressed,

> [The child] will make sense of the lessons only by using the new ideas, experiences or ways of thinking in order to reorganize his or her existing pictures of the world and how it can be acted upon. This is partly a matter of relating the new ideas to what a learner already knows. It is only the learner who can bring the new information, procedures, or ways of understanding to bear upon existing ideas, expectations and ways of thinking and acting. (pp. 2-3)

When those connections and applications are not made, learning is not meaningful for the child, and knowledge temporarily gained is soon forgotten. In the pilot study, teachers and SLPs were careful to bring out students’ prior knowledge and experiences and to facilitate this process. Teachers could do this for large or small groups of students in the general pedagogical setting.
For example, the instructor might relate new content from the unit to children’s prior knowledge and experiences by any of the following:

- Relating targeted information to feelings and experiences: e.g., being frightened by the unexpected appearance of a raccoon, skunk, or mouse
- Bringing in a prop or contriving an experience to build shared knowledge: e.g., showing the children a nest that an animal made in a person’s home or an object chewed by a mouse that crept into a person’s home
- Asking the children questions to bring out prior knowledge or experiences: e.g. “Have you ever been in a place where there were animals you hadn’t seen before (national park, camp site, etc.)?” “Has anyone had an animal make a home in your garage or attic?”

Through such experiences children were able to relate more personally to the unit content, and the instructor could help make the new content more relevant and meaningful.

**Dramatizing texts.** Since preschool children have had varying amounts of experience listening to texts read aloud, and young children with language difficulties have deficits in attention and listening skills (Brinton & Fujiki, 1999; Finneran, Francis, & Leonard, 2009; Ross, Neely, & Baggs, 2007), the teachers and SLPs involved in the study would often use dramatic storytelling and audience participation techniques with both expository and content-relevant narratives to get children involved in unit topics (Culatta & Hall, 2006).

While the children were being exposed to relevant expository texts, they also encountered and enacted narratives that fit the theme and provided opportunities to discuss and map expository content. For example, in the subunit titled “Finding the Right Place to Live,” the teacher told the story from the book *Mouse Mess* (Riley, 1997), a story about a mouse that lives under the stairs in a family’s house and comes into the kitchen during the night and makes a mess with the food. The narrative was told with periodic explanations, comments, and dramatizations. The instructor used gestures, actions, intonation, facial expressions and props to
Illustrate the story. He also gave children active participatory roles to play during the dramatic telling (e.g., stretching and yawning when the mouse wakes up) and opportunities to act on simple props (e.g., a toy mouse, various food containers or pretend foods) (see McGee & Richgels, 2003).

To prepare the children to work with compare/contrast structures, the teacher would occasionally make comments or ask questions: “Can a real mouse actually live in a hidden place in your house?” “Does a real mouse have pictures and signs on his wall?” “Does a real mouse sleep in a fancy box?” “Can a real mouse get into food?” “Does a real mouse play with food like this?”

**Telling personal experiences.** As part of the unit, instructors gave personal accounts that fit within the targeted theme. These were real experiences with animals that had happened to people the instructors and/or the children knew. Such stories not only catch students’ attention, but also help them learn to “listen, concentrate, and follow event-structured material” (Jalongo, 2000, p. 200) in a nonfiction context. For example, in discussing *Mouse Mess* and describing what real mice need in order to live, the teacher related an experience in which a real mouse had made a nest in a person’s house. Another personal story told of a pet hamster that was always trying to get out of its cage and how it escaped and got lost. This story also related to animals needing places to live that would fit their needs and wants. In this case, the hamster could not meet its needs to exercise and burrow because the cage was too small. The children participated in these personal experience narratives by retelling, answering questions, and filling in Cloze or sentence completion prompts—enhancing their ability to extract information from experience.

**Teaching key concepts and vocabulary explicitly.** Developing “literate” vocabulary is vital in children’s preparation to deal with expository texts; although a few picture books may be written in the everyday language of the home and playground, informational materials usually are not. Children need to begin encountering “book language” early so they are ready to handle
it as it gradually becomes the medium in which they are expected to learn and communicate as they progress through school. An examination of children’s books showed 50% more unusual words than either prime-time television or most conversation of adults (Wallach & Butler, 1994). Words that are not high frequency in children’s lives must be explicitly taught.

In the project on people and animals living together, activities were created to explicitly teach words relating to the compare/contrast and problem/solution expository structures (compare, alike, similar, different, etc.) and to the content being conveyed (e.g., pet vs. wild animal, or wild vs. tame animal) in the subunits.

To teach vocabulary explicitly, teachers and SLPs provided children with multiple clear examples of each target word and included child-friendly oral definitions and explanations (Beck, McKeowen, & Kucan, 2002), sometimes pairing a word with common synonyms and providing verbal and physical examples (Beck, et al., 2002). The instructor would relate the target word to the children’s experiences in order to contextualize the word meanings (Beck et al., 2002). Often the instructor would give examples that involved role play or demonstration (e.g., spilled water, ripped paper). For example, an instructor taught the word alike by bringing in common things for the children to compare during a role play in which he wore a boot on one foot and a shoe on the other; packed a bag with sets of two items that were alike or different in certain ways; and commented on how items in the sets were either alike or not alike. Instructors sometimes contrasted examples of word meaning with clear non-examples or pointed out actions or attempts that wouldn’t be solutions to particular problems.

Words taught in the unit included real vs. pretend, need vs. want, belong, and respect. Because the word solution might have been a difficult concept for some of the young children, it was always paired with simpler words and an explanation. The instructor explained the word problem as “when something goes wrong or breaks--something you didn’t want to happen.” The
term *solution* was taught with a synonymous phrase: “how to fix the problem.” Instructors were instrumental in rephrasing and re-contextualizing vocabulary for the students.

**Presenting expository texts aloud.** In preschool classrooms, children with and without language difficulties need scaffolding for expository texts. When expository texts are presented to young children, instructors should avoid simply reading them as written, but should discuss and elaborate them to make them more accessible to the children (Price, et. al, 2009). Thus during the pilot study written texts were told rather than read, which enabled simplifications, modifications, and elaborations during presentation. While telling and discussing the texts, the instructor would supply background information and fill in any important implied or assumed information. The instructors would also show the children pictures in the expository texts and talk about the content, making adjustments, yet still enabling children to associate the information as having been conveyed in written form.

Expository texts used in this project were picture books that provided heavy contextual support. When appropriate, the teachers presented the expository information in either problem/solution or compare/contrast structure, since these were the expository organizations emphasized throughout the unit. The instructor would state the structure in an introduction (e.g., “This book shows different kinds of horses, and we’ll see how they are alike and how they are different”). While presenting the text, the teacher or SLP would emphasize the underlying conceptual (organizational) relationship: “Now that really is different, isn’t it!”

**Mapping Conceptual Relationships.** Information should not be presented in unrelated pieces; all pieces should fit together in a logical, connected framework. Helping students represent texts visually is a common and effective way to help them see relationships among main ideas in expository texts (Armbruster, Anderson, & Ostertag, 1987; McGee & Richgels, 1985). Developing this visualization skill increases their ability to organize information and thus better comprehend expository texts. When students learn the patterns common to expository
texts, they can create maps or graphs that make it possible for them to organize and remember factual content. Additionally, maps and graphs provide a context for decontextualized material and help them in expressing their knowledge (Wallach & Butler, 1994).

In the unit on people and animals living together, children were given several opportunities to map the two targeted structures (compare/contrast and problem/solution) once or twice in each subunit. Maps or graphic representations were created from contrasts between make believe and factual information (differences between real mice and the pretend mouse in *Mouse Mess*), first hand experiences solving problems (ways to improve the hamster’s cage so he wouldn’t want to escape), and expository texts told and discussed (characteristics of wild vs. tame horses). Instructors mapped, highlighted, and discussed these structures in very simple ways to help children become familiar with two important ways expository information is organized.

Simple charts or matrices were created for the compare/contrast and problem/solution text types. The headings for the columns and rows were words or phrases (introduced and explained orally), the information in the cells was represented with concrete pictures and objects, and the links and categories (major and subordinate) were identified through oral language.

Compare/contrast texts were represented using a simple matrix with columns representing the items being compared. Props or pictures were placed at the top to serve as labels for the items, and rows represented the dimensions or features on which the items were being compared. For example, following the *Mouse Mess* story (Riley, 1997) and a discussion of how real mice live outside, the instructor guided the children in charting a comparison between people and mice. A two-column poster was placed on the floor in the middle of a full-class circle; at the top of one column was a picture of a person, and at the top of the other was a picture of a mouse. Each of the rows was designated to represent different characteristics being compared: what they eat, where they sleep, how they keep warm, and how they move around.
Pictures or objects were used to represent how people live and how mice live. The teacher or SLP would place an object in a cell and explain what it represented. (“This is a nest. Mice live in nests.”) Students would then select other items to put on the chart and decide where to place them. The teacher would respond with comments stressing key words like *alike* and *different*.

Children were also supported in graphically representing problem/solution relationships. During the subunit on animals needing the right kind of place to live, an SLP told a personal story about her son’s pet hamster who did not like his cage and escaped from it because it didn’t fit his needs. The instructor told and illustrated the story, then supported the children in mapping the experience. The instructor set out a chart with two columns, one labeled at the top with a frowny face for the problems and the second with a smiley face for the solutions. The instructor modeled how to represent the problems and solutions on a chart by putting pictures or objects to represent each problem and solution in the appropriate cells of the chart.

The SLP and the children went through a sequence of problems described in the personal narrative and solutions that had varying degrees of failure or success. After creating the chart, the instructor reviewed it with the children, “talking through” it and emphasizing the problem/solution relationships. Retelling a text from a graphic organizer permits the children to organize the information linguistically, differentiating between main topics (i.e., problem, solution) and the events in the texts that are the examples or supportive details of those higher-level categories (Meyer, Brandt, & Bluth, 1980). For the preschool children, re-telling a text from a graphic representation with adult support became a joint co-construction rather than an independent re-telling, as the children were given turns to select options from the picture-choices or fill in the supportive details, and the instructor modeled and involved the children in the process of telling from the organizer (Piccolo, 1989).

*Providing concrete hands-on experiences.* In supporting children’s expository comprehension, teachers and SLPs need to relate concrete experiences to the abstract and remote
factual information to which children are being exposed (Cummins, 1984), engaging them in the content or permitting them to explore the content and extend their knowledge. Thus the unit plans for the preschool pilot study included presenting information in the presence of contextualized experiences related to the thematic content.

An example of one of these concrete experiences developed from the problem/solution personal text concerning the hamster that did not like his cage and managed to escape from it. The instructors arranged for the children to work in small groups to design a cage that would meet the hamster’s needs. As the groups designed their hamster cages, the instructors responded to and elaborated their ideas, extended the information, and related it to the targeted unit content: the importance of matching an animal’s living environment to its needs. The adults used the immediate experience to discuss or relay information that was more remote and abstract: e.g.,

The animal will be happier and healthier if its living space meets its needs. For example,

*You’re leaving space for the hamster to run around and exercise. That should solve his exercise problem. Animals need to move around and exercise. And James has arranged a nice nest in corner so he won’t have a problem finding a nice soft place to sleep. That’s a great solution!”* An animal’s home needs to have a solution for ALL its needs.

Expository texts can be presented orally as a teacher demonstrates how something can be done or made, comments while children are handling props, co-constructs retelling of factual information, or keeps up a running commentary about a hands-on experiences the children encounter.

**Engaging in supported conversations.** Purposefully orchestrated instructional conversations were an important aspect of this study because of their importance in scaffolding both group and individual knowledge, skills, and engagement. Ketch (2005) advised teachers, “Conversation helps individuals make sense of their world. It helps students sort out their ideas of the world and begin to understand how they fit into it. Used as a connection to cognitive
strategies, conversation fosters comprehension acquisition” (p. 8). In a preschool classroom, a wide variety of children with diverse experiences are struggling to make sense of a variety of different “worlds”; all of them need help. Children whose conversation is more difficult because of language deficits have particular problems in obtaining turns during conversations and in both asking for and giving clarification (Brinton, Fujiki, & Sonnenberg, 1988). Language production rates for children with language delays and disabilities have been shown to vary with classroom contexts (Peets, 2009). Fortunately, teachers at the lab preschool where the study was conducted made a variety of contexts available for the instruction so that conversations could be initiated and orchestrated to meet student strengths and needs.

The Center for Research on Education, Diversity and Excellence (2002) has recommended that “In instructional conversation (IC), the teacher listens carefully, makes guesses about intended meaning, [and] adjusts responses to assist students’ efforts” (np); these same processes are relevant whether in graduate seminars or among toddlers. The instructors in this study were trained to elaborate ideas and highlight the compare/contrast or problem/solution structural relationship the children encountered during different activities—with redundancy and re-teaching built into the process.

Teachers and SLPs frequently used instructional conversation to remind the children of how various pieces of information could be tied together and how they could apply their prior knowledge and experiences to current situations or content, relating ideas across texts, contexts, and tasks. These goals of the instructors served them well in integrating information as well as skills across theme-based activities. They explored targeted content, concepts, and expository structures in multiple ways, relating content from picture-book stories, expository texts, accounts of personal experiences, and hands-on encounters with informational content.

Assessment Tasks and Data Collection
Comparable pre-post assessment tasks were used to examine students’ comprehension of expository texts by obtaining data on their ability to map (organize) and retell (recall) orally presented problem/solution and compare/contrast texts (see Hall, Markham, & Culatta, 2006 for illustration). To map compare/contrast relationships, the children were told how two animals were alike and different, with picture support, and then asked to place concrete props illustrating those features in cells on large two-column cloze maps (i.e., similarities in one column and differences in the other). To map problem/solution relationships, props used to illustrate the details of the personal account being told, and the children placed them in appropriate cells (objects representing problems in one column and objects representing solutions in the other). In the retelling, children were asked to retell the texts to a puppet without having the map available.

Both tasks (mapping and retelling) were administered during the same session. During the administration it was noted that the children seemed to make random responses during the problem/solution mapping task. During the scoring of the compare/contrast retelling, it was noted that the children would comment on features of animals compared, but they infrequently used compare/contrast signal words such as same as, alike, or different. The compare/contrast text was less “story-like” as it was focused on the similarities and differences between two animals. In contrast, the problem/solution texts were personal accounts about experiences with people and animals (a friend’s dog that got sick because he ate things he shouldn’t and a neighbors’ barking dogs who frightened the children and prevented the family from sleeping). The personal account may have been easier for the students to retell, as they have more experience retelling narratives, which are more similar to problem/solution texts than to comparison/contrast pieces. These concerns with the tasks require us to carefully interpret the results of the current study and suggest possible changes to the tasks in future investigations.
Additional indications of the effectiveness of the instruction were expressed in observations and interviews. Recorded observations included anecdotal records such as spontaneous comments children made either when they were comparing and contrasting items or events or as they were discussing or commenting on problems and solutions (see Jalongo, 2000) and review of classroom videotapes.

Interview data were collected from parents and teachers to evaluate their perceptions of effectiveness of instruction. A parent session was conducted at the end of the project during which parents were shown a slide show concerning their children’s work and learning (Hyson, 2008) and asked to respond to survey questions indicating their perceptions of effectiveness as they had observed and interacted with their children (Jalongo, 2000).

RESULTS

Since this was a pilot study conducted over a relatively short period of time, the data were examined for basic directions and trends. Preliminary results are described in this section.

Compare/ Contrast Performance

For the compare and contrast mapping task, differences between pre- and post-test scores were analyzed using a paired t-test for the group of 71 participating children. The mean pretest was 7.0 (SD = 2.5), and the mean posttest was 7.8 (SD = 2.6). There was a significant gain score \( t = 2.60; \ p < .01 \), but the effect size was small \( d = 0.31 \).

It is of interest to note that 49 out of the 71 children (69%) scored 6 or more (max=12) on the pretest, which suggests that they had some knowledge of comparing and contrasting processes prior to the instruction. In addition to analyzing the group data, we were interested in the performance of 22 children (31%) who seemed to have a lower competence level, having scored less than 6 on the pretest. Of these 22 children who began the instructional unit on a lower level, all but 5 showed gains on the posttest, with a mean gain score of 2.21 (SD=1.67). Only a few children were not confident with the mapping process at the posttest.
In contrast, signaling compare/contrast distinctions while retelling a text was more difficult. Fewer children, 33 out of 71 (46%), made gains in signaling the text structure in their retelling, with a mean pretest of 1.99 (SD = 1.4) and a mean posttest of 2.06 (SD = 1.5). The difference between pre- and post-test was not significant, with a very low effect size (t = .32; p < .7; d = .04). Gains were made, however, by 16 students (22.5%) who could not retell any part of the compare/contrast text on the pretest (score < 0.5); 11 of these 16 students made gains on the posttest, with a mean gain score of 1.64 (SD = 1.03). At the posttest all but the five lowest performing children were able to comment on at least some characteristics of the animals they were comparing, but they infrequently used signal words such as alike or different to make the distinction. The criteria for scoring required children to signal the compare/contrast distinction by using signal words if they were to be counted as having made a full retelling.

**Problem/Solution Performance**

On problem/solution mapping, only 11 of the 71 children (15%) demonstrated gains. Since many of the children appeared to be randomly placing items on the chart, the group results were not analyzed.

In contrast to poor or random responses on the mapping task, children did show gains in understanding problem/solution relationships as they retold a problem/solution personal account. Of the 71 children, 61 made significant gains in their retelling of problem/solution text. The mean pretest score was 2.50 (SD = 1.4) and the mean posttest score was 6.9 (SD = 3.6), with a t value of 10.88, p < .001 and large effect size of (d = 1.64). As retelling was a verbal retrieval task, there was little space for children to respond randomly, and the retrieval response seemed to be a better reflection of children’s understanding. While none of the children included all possible problems and solutions in their retelling, they were able to handle the task and respond approximately by using the terms problem and solutions in their retold versions.

**Qualitative Observations of Student Engagement**
Students demonstrated great interest and involvement in the instructional activities. Recorded observations and video transcripts captured student engagement and interest in the content and concepts that were being taught. A transcription of an instructor and six children who were constructing a “better hamster cage” to meet the needs of the escaped rodent, illustrated that engagement. After discussing the problem/solution sequence of a personal narrative in which the SLP attempted to capture a lost pet hamster (putting out food, constructing a home-made trap, buying a ‘have-a-heart’ trap), the children were involved in constructing a better cage to fit the hamster’s needs. During the activity, the children’s attention was focused on the materials as they gathered around the cage and used miscellaneous items in the renovation process (e.g., toilet paper rolls, toothpicks, small plastic containers). The children showed their interest with animated voices as they elaborated on each other’s and the instructor’s contributions.

Some of the children came up with ideas for ways to entertain the hamster: (1) give him a TV (“He needs a TV!” to which the adult responded, “Do hamsters watch TV?”); (2) put him in a ball and toss him in the ball; (3) put things in the cage for the hamster to play with. When a child put toothpicks in the cage, the adult asked, “What do we need the toothpicks for?” To this the child responded, “Maybe so he could just like roll on ‘em and stuff.” The children continued to enthusiastically find ways to meet the hamster’s needs. They found containers that could be used to hold food, serve as a place to go to the bathroom, and even function as a kitchen. The children would announce what they were working on (e.g., “I wanna make the food!”) or indicate pride in their contributions (“Look what I did right there”).

As the small group worked on building a better hamster cage, the children cooperated, remained fully engaged, and collaborated to create a more desirable home for the runaway rodent.

Generalization of Concepts and Content
Observations by classroom teachers and unit instructors noted that children spontaneously talked about problems and solutions in their classrooms. They used the key problem/solution concepts that they had been learning through the stories, lessons, expository texts, mapping activities, discussions etc. For example, during a regular classroom activity (not part of the unit), the students were making muffins and realized that they did not have enough eggs. The children spontaneously suggested that they had a problem and needed to find a solution. Responding to the opportunity, the classroom teacher expanded the problem/solution concepts that were being addressed in the unit; the children discussed the problem of not having enough eggs for their muffins and brainstormed possible solutions (e.g., ask the teacher in the classroom next door, double check the fridge to be sure there weren’t any more eggs, ask the preschool director to buy more eggs, go home and get eggs). Classroom observers reported a number of similar experiences during which the children spontaneously talked in class in terms of compare/contrast and problem/solution relationships they had been learning.

We were also interested to determine whether or not the children were making out-of-class applications of the content and concepts they were learning. So we asked the parents to identify any of the content, concepts, or activities they had heard their child talking about at home. The parents were given a list of content and concepts from the unit and asked to report generally on the activities, ideas, and stories that their child shared with them about preschool.

Of the parents who were willing to share their experiences, slightly more than half indicated that their children did not refer to any specific information about their experiences in the classroom: e.g., “He hasn’t told me very much about it,” “He has talked a little bit about it,” “No! I should say; however, I have not asked.” However, responses of those whose children did bring their learning home were encouraging. Several parents reported hearing their children talk about the content they were learning from the expository texts/lessons on animals:

She often asks me questions that are obviously linked to what she has been learning about. Typically her questions arise when she sees something that reminds her/cues her.
For instance, when we were shopping one day we saw a blind man with his seeing eye dog, and I was astounded by her interest and knowledge. This makes more sense [now I know] that this was part of one of the books.

My daughter does not talk about [specific] stories. She has been asking questions about animals, and now I know where these questions have been coming from.

Given the ages of the preschoolers, researchers were not surprised that many of them became particularly interested and personally involved with the stories.

I have heard about stories my child has experienced at preschool as she has made connections with the story and her life. For example, an older sister had a sore tooth, so my child shared ideas from *Bear’s Toothache*. We had mice we were trying to catch, and she talked about *Mouse Mess*.

She loves all the reading and focus[es] on each story.

“Very excited about ‘dog’ stories—loves story time.”

Of particular interest to those who had developed the project, some parents also reported hearing their children discuss or demonstrate their knowledge of some of the concepts they were learning.

“He does talk about finding solutions. He has also talked about getting a pet a lot lately.”

“My child has talked about how to take care of pets. [He has] shared the stories that he likes, also shared what the problem was and how it was solved.”

“I really like the project. My son has started to focus on problem solving.”

“I would like to do [reading like] this at home. It makes books and stories more interesting and meaningful.”

**Teacher Reactions**

The teachers who participated in this study had been trained in a model of developmentally appropriate practice. Instead of having a specific curriculum, they had relied on creating print- and language-rich environments that would provide naturalistic stimulation for literacy exploration. While explicit teaching of literacy skills was not the central focus of their instruction, the teachers did agree to permit the supplemental *People and Animals* literacy program to be implemented in their classrooms and to assist in evaluating its effectiveness. The
program designers held some preliminary meetings with the teachers, during which they shared a draft of the program and assured the teachers that the instructional strategies would fit within developmentally appropriate practice. With the permission and support of the preschool director, the teachers willingly agreed to accommodate the instructional program and support the student instructors as they carried out the lessons and activities.

Discussions and interview data indicated some change in teacher beliefs about literacy practice. The teachers felt that as a result of participating in the program they had learned about the value of using expository texts with young children and providing explicit literacy instruction. One of the two teachers commented that she had learned particularly about the need for purposeful yet playful practice and application of literacy skills.

**DISCUSSION**

Although this study was preliminary and included no control group, its results can provide SLPs and early childhood educators with practical ideas and some concrete methods for implementing an early expository program that is based on relevant research and is developmentally appropriate for preschool classrooms. Ultimately this pilot study reinforces the notion that children of preschool age can learn expository information and deal with expository concepts and structures. Several lessons have been learned from this experience that may lead to future research related to early expository instruction in preschool classrooms.

**Appropriateness of Early Expository Instruction**

Through this project we learned that explicit, purposeful instruction does not have to be boring or unrelated to children’s lived experiences. Thematic units can and should be constructed on topics of natural interest to young children and related to children’s lives and experience. Many of the children were also able to apply expository concepts to their own experiences. Several parents indicated their children were starting to think and talk about things in their lives in terms of problems and solutions. We feel that one of the reasons that the
problem/solution retelling task may have had the largest effect size was because these were the
corcepts that the students used spontaneously both in and out of the classroom. In this way, it
seems that the children internalized these concepts and then were able to use them more
effectively in their retellings at the posttest. Mapping was shown to be valuable in developing
these patterns; however, the randomness with which some children completed the problem-
solution mapping on the posttest demonstrates that the task should be simplified or perhaps
supported as in a dynamic assessment task.

Cautions and Considerations in Implementing Early Expository Instruction

This study supports the recommendation to use expository texts in instruction with
preschool-age students. In this pilot study the instruction focused on a number of genres dealing
with informational content: personal accounts, content-based narratives, expository read alouds,
and hands-on experiences in the presence of contextualized instructional conversation. While we
agree with the concern that young children may not be able to distinguish between fact and
fiction on a meta-level, we also feel that relating themes presented in narrative and expository
texts enriches children’s understanding of the theme and content and provides motivation in the
form of integrated instruction. In mixing genres, we believe that it is important to make explicit
contrasts between how situations occur in stories and how they really happen or appear in real
life. The use of personal narratives that highlight factual information with compare/contrast or
problem/solution structures can create a bridge between narrative and expository texts. In using
personal narratives, the SLP or teacher can make it clear that the real life situation happened to a
real person she knew.

Limitations and Need for Further Research

This pilot study has opened up possibilities for additional research into models and
methods for preparing young children to deal with expository texts. We recognize its limitations
in time and population diversity. We highly recommend application of similarly conceived
programs in preschools serving more diverse populations, in first and second grade classrooms, and in classrooms containing children with more severe language delays or deficits. Research is needed using an experimental design with controls.

Concerns with the level of complexity of some of the tasks leads us to suggest that tasks such as the problem/solution assessment be simplified and the children be given more support, perhaps using a dynamic assessment format. This would keep cognitive demands of the tasks in line with young children’s capacities. In addition, the children’s performance on retelling of compare/contrast could be re-scored with the children receiving credit for logically presented compare/contrast relationships rather than counting responses as correct only if compare/contrast signal words such as alike or different were included.

Despite these limitations and cautions, the results of this pilot study add to the increasing body of literature supporting the introduction of expository text instruction in preschool and kindergarten classrooms. We hope that the activities described in this article will encourage others to see the possibilities.
Figure 1. Illustration of the mapping of the compare/contrast structure using concrete objects and pictures to represent information
References


Invernizzi, M., Sullivan, A., & Meier, J. (2001). *PALS-PreK phonological awareness literacy*


1. Which of the following is *not* a type of expository text that children are typically exposed to in early childhood classrooms?
   a) Simple expository texts in the form of classroom environmental print
   b) **Content-area textbooks**
   c) Accounts of personal experiences
   d) Picture books related to thematic units

   **Answer:** p. 7-8

2. Which of the following is *not* a reason for including expository texts in preschool classrooms?
   a) Capitalize on student interests
   b) Develop language skills and capabilities
   c) Build cognitive strengths and abilities
   d) **Supplement narrative texts**

   **Answer:** p. 4

3. The current study provided several experiences to help the students relate personally to the unit content. They did this for which of the following reasons?
   a) **To make instruction meaningful and build on prior knowledge**
   b) To build vocabulary
   c) To make the unit easier to plan
   d) To ensure that the students were interested in the content

   **Answer:** p. 13

4. Which of the following was *not* one of the several different types of instructional activities used in this study?
   a) Telling personal accounts
   b) Teaching key concepts and vocabulary explicitly
   c) Mapping conceptual relationships
   d) **Teaching text features**

   **Answer:** p. 13

5. Which of the following is one of the lessons learned from this study?
   a) Young children are not ready for explicit expository text instruction.
   b) Young children can and do enjoy expository texts and content.
   c) **Thematic units can and should be constructed on topics of natural interest to young children and related to children’s lives and experience.**
   d) Narrative texts should be used more often in early childhood classrooms.

   **Answer:** p. 28
Biographical Sketches

Barbara Culatta completed a PhD from the University of Pittsburgh and a postdoctoral fellowship from Johns Hopkins University in speech language pathology. She is professor of communication disorders and associate dean in the School of Education at Brigham Young University. She has directed federal grants dealing with expository instruction, collaborative service delivery, and early literacy intervention. She is creator of a program titled Systematic and Engaging Early Literacy (SEEL), which includes an open access website with downloadable materials. Dr. Culatta co-authored the book *Language Intervention in the Classroom* and has written articles and chapters on curriculum and classroom-based language intervention.

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Sharon Black, an associate teaching professor at Brigham Young University, has an MA in English. She has experience as a kindergarten teacher and contributes to the development of instructional and professional development materials for the early literacy project Systematic and Engaging Early Literacy Instruction (SEEL). She teaches advanced writing and research to teacher education candidates and consults with faculty on their writing.