2012

Adapted Stories: Creating Accessible Stories for Children With Complex Language Problems

Janet L. Dodd
Chapman University, dodd@chapman.edu

Recommended Citation

Adapted Stories: Creating Accessible Stories for Children With Complex Language Problems

Comments

This is a pre-copy-editing, author-produced PDF of an article accepted for publication in *SIG 1 Perspectives on Language Learning and Education*, volume 19, issue 4, in 2012 following peer review. The definitive publisher-authenticated version is available online at DOI: 10.1044/lle19.4.139.

Copyright

American Speech-Language-Hearing Association (ASHA)

Adapted Stories: Creating Accessible Stories for

Children with Complex Language Problems

Janet L. Dodd

Chapman University

Abstract

Many children with autism spectrum and other language impairing disorders present with complicated language problems (CLP) (Franke & Durbin, 2011). These children exhibit delays across multiple domains of language and often benefit from narrative and story based interventions. However, many children's stories, the vehicle often employed for these types of interventions, are often too complex for them. The purpose of this article is to introduce a strategy for making stories accessible, linguistically and cognitively, for children with CLP.

Adapted Stories: Creating Accessible Stories for Children with Complex Language

Problems

As an expression of language, narratives serve a variety of communicative purposes

(Paul, 2007). We speak in narratives to retell past events, share experiences, give instructions,

and for the general purpose of communicating and verbally interacting with one another.

Narrative language skills have routinely been identified as one of the single best predictors of

future academic success (Bishop & Edmonson, 1987; Feegans & Appelbaum, 1986). Therefore,

developing the skill of narrative language should be a component of any language intervention

program.

Many children with autism spectrum and other disorders have complex language

intervention needs. These children benefit from an approach which not only expands semantic

abilities, and develops understanding and use of the grammatical aspects of language but

simultaneously cultivates critical thinking skills and broadens pragmatic use of language.

Narrative-Based Language Intervention (NBLI) is a language intervention approach which fuses

naturalistic activities, such as storytelling, with skill-based activities. (Swanson, Fey, Mills, &

Hood, 2005). NBLI provides a venue for teaching a variety of language goals with a functional

application. The goal of NBLI is to support a child's development of narrative language skills

while simultaneously addressing their individual needs to develop vital skills across all domains

of language.

It is common to use children's stories as the catalyst for NBLI and other story based

approaches. However, many children's stories are fraught with challenges for children with

deficits across multiple domains of language. Although children's stories provide a wealth of

opportunities to teach a variety of language structures and communicative functions within shared reading experiences, many children's books do not make sense to children with autism or other disorders which significantly impair language. They are often too complex at both the cognitive and linguistic level. Unfortunately, when a story is deemed too difficult for a child the natural default is to describe the picture and ask various wh-type questions losing the "story" aspect and yet again missing the opportunity to expose the child to a "story." It is not that these stories are poorly written. Quite the contrary, these are beautifully written stories that are just too difficult for some children with autism and other language impairing disorders to manage. The purpose of this article is to introduce a strategy for adapting stories for children with complex language problems.

Children Presenting with Complex Intervention Needs

The information presented in this article targets the intervention needs of a subgroup of children within the autism spectrum or similar language impacting disorders who in the literature have been referred to as children with emerging language skills (Paul, 2007), basic communicators (Dodd, 2010), and children within the language partner stage of development (Prizant, Wetherby, Rubin, Laurent, & Rydell, 2006). These children have transitioned from the non-symbolic stage of communication to using increasingly more symbolic forms (e.g., spoken words, manual signs and pictures) for an expanding range of communicative functions. In addition to delays across multiple domains of language challenges with cognition, social relatedness, attention, and emotion regulation further impede their ability to acquire language and related communicative skills given traditional language interventions. These children present with complicated language problems (CLPs) (Franke & Durbin, 2011) which require interventions that address deficits in multiple communicative modes (Nelson, Welsh, Camarata,

Tjus & Heimann, 2001). Children with CLP benefit from interventions that not only support their

oral and receptive language development but also facilitate their critical thinking skills within a

naturalistic context (e.g., storytelling).

The Problem with Stories

Many popular children's stories are difficult for children with CLP to manage. To

illustrate these challenges I will use two of Franke & Durbin's (2011) four principles for

nurturing narratives: Are stories *meaningful*? And are stories *manageable*? In order for stories to

be meaningful and manageable for children with CLP they must be both linguistically and

cognitively accessible. We are able to control the cognitive complexity of a story by using

stories that follow a familiar story sequence (e.g., story grammar) and are about topics familiar to

the child. We can support the child linguistically by developing stories using simple sentence

patterns, stating the information in an explicit manner, and restricting the number of new terms

introduced in a given story. Table 1 provides an overview of the different elements of cognitive

and linguistic complexity that need to be considered to insure that stories are meaningful and

manageable for a child with CLP.

Table 1

Elements of Linguistic and Cognitive Complexity

Elements of Cognitive Complexity	
Event Knowledge	Children utilize their event knowledge, prior knowledge and experience with the topic in which the story is based, to make sense of the story. Therefore, stories about familiar topics are often more meaningful and easier to understand for children with CLP.
Contextualization	Children use picture cues to support their understanding of story content.

Children with CLP benefit from stories that are contextually relevant eliminating the need to infer information not explicitly stated in the story text or discernible from the picture. Children at this level of functioning become easily confused when there is a mismatch between the story text and the picture.

Story Memory
Children rely on their internalized "story template" or story grammar to organize their understanding and recollection of a story. Children with CLP can become confused or disoriented to the "story" if the story structure is opaque and not easily recognized. Stories that follow a familiar or predictable structure are easier for the child with CLP to make sense of.

<u>Elements of Linguistic Complexity</u>

Story Text
Children gravitate towards stories which require them to make inferred connections and predictions as they progress through the story. But for the child with CLP this type of linguistic processing can be too taxing on an already challenged system. Children with CLP need story text which is explicit and understandable.

Syntax
Children utilize their understanding of sentence structure to make sense of a story. Children with CLP need to hear and have experience with target sentence patterns.

Semantics
Children infer the meaning of unfamiliar words based on how they are used context. When novel vocabulary is introduced to the child with CLP within the context of a story the meaning of the word needs to be

transparent and easily discernible.

Franke & Dodd, 2009; Franke & Durbin, 2011

Consider the story *Mrs. Wishy Washy* by Jay Cowley. This classic children's story uses simple text and a catchy repetitive phrase to engage young children. The challenge is that the story violates story grammar and the sentences are too complex for a child with CLP (Franke & Durbin, 2011). In fact, the language, which may be initially considered appropriate and accessible for a child with CLP, actually requires inference on the part of the novice language learner. For example, consider this sentence from the story *"Just look at you," she screamed*. Syntactically, this is a much more complex sentence that many children at this level are ready for. Most children at this stage of development are learning very simple sentence patterns (e.g., subject + verb + object). This sentence also requires the child to rely on the visual cues in the picture to deduce that Mrs. Wishy-Washy, who is looking at the pig, is unhappy. A more supportive and manageable story text might read, "She is looking at the muddy pig. She is not happy. She wants the pig to be clean, but he is dirty!" (Franke & Durbin, 2011, p. 44). This text is explicit and gives a clear description of the situation depicted in the picture.

Another example of a children's story which can be problematic to children with CLP is the story *Dear Zoo* by Rob Campbell. In this story, an unseen narrator, who we assume might be the child, narrates the tale of asking the zoo for a pet. To understand this story one must possess event knowledge of zoos and understand perspectives (Franke & Durbin, 2011). One of the necessary components in making sense of this story is to understand that zoos are not places where you go to get pets. Another challenge that this story poses for the child with CLP is it is written from the first person perspective. The concept of "I" alone is difficult for many of these

children; application of how it can assume the role of the main character is even more perplexing. This is a story that can become easily confusing for a child with CLP.

Creating an Environment for Successful Learning to Occur

Successful learning occurs when there is a strategic balance between challenge and support. This balance requires a "Tricky Mix of multiple, positive, converging cognitive, communicative, social, emotional, and self-esteem factors" (Nelson, Welsh, Camarata, Tjus & Heimann, 2001, p. 166). The merging of these factors creates a dynamic supportive environment for the struggling learner. When working with children with CLP, such as those with autism, finding the "Tricky Mix" can be an elusive process. Adapted stories are the initial step towards creating this "Tricky Mix" of "processable" language (Nelson et al.). Adapted stories paired with scaffold instruction leads to successful learning. A preliminary investigation with children with CLP presented by Franke & Dodd (2009) revealed greater comprehension was achieved following a story lesson based on an adaptive story compared to one based on the original story text. The story recounts of the children following the story lesson based on the adapted story yielded increased lexical diversity and improved story structure scores compared to retells following a story lesson using the original story text. Based on the results of this preliminary investigation it can be concluded that adaptive stories can be a supportive element of a narrative or story based intervention program.

Adapting Story Text

Speech-language pathologists are acutely aware and adept at adjusting their language based on the abilities of the child. In adapting stories the challenge is adjusting the story text while preserving the story aspect. Tables 2 & 3 list several strategies to consider when adapting stories for children with CLP.

Table 2

Cognitive Complexity: Considerations for Adapting Story Text

Event Knowledge	Select or create stories about engaging real or imaginary events, routines or situations the child is familiar with or has the potential to understand (e.g., popping a balloon, a dog tracking mud, putting a band aide on a cut, cleaning up a spill).
Contextualization	Match the story text to the pictures.
Story Memory	Use simple single episode stories
	Choose stories that follow a predictable story structure

Franke & Dodd, 2009; Franke & Durbin, 2011

Table 3

Linguistic Complexity Considerations for Adapting Story Text

Story Text	Develop story text in which all information is clearly stated eliminating the need for inference; responses to questions should be clearly embedded within the story (e.g., Example #1-Adapted Story Text: "The girl is running." Question Comprehension: "Who is running?" or "What is the girl doing?" Example #2- Adapted Story Text: "The boy is sad because his bike is broken." Question Comprehension:" Why is the boy sad?).
Syntax	Use simple sentence patterns (e.g., subject-verb, subject-verb-object) gradually increasing the complexity of the sentence structure to include compound sentences and prepositions as the child is able to handle

| | more complex sentences both at the receptive and expressive level. |
| Semantics | Limit the number of new words introduced to the child in any given story. Define unfamiliar words within the text. |

Franke & Dodd, 2009; Franke & Durbin, 2011

The story *Curious George Goes to the Beach* by Margaret and H. A. Rey can be used to illustrate these considerations.. The stories in the Curious George series depict the adventures of a curious brown monkey named Curious George and his friend, who is simply referred to as the Man with the Yellow Hat. The adventures described in these stories revolve around excursions that any child may experience such as visiting the zoo or attending a baseball game. In this particular story, Curious George and his friend are going to the beach for a day of fun and adventure. Within this story are several mini stories complete with their own setting, problem or situation, and resolution. An adapted story was created by selecting a single episode from the story and developing an appropriate text based on the needs of the child. Table 4 provides a comparison of the text as it was written in the story and the adapted story text.

Table 4

Curious George Goes the Beach

Picture Descriptions	Story Text	Adapted Text
Curious George and his friend are at the beach.	This is George. He lives with his friend, the Man with the Yellow Hat. He was a good little monkey and always very curious. Today the man	The beach! Curious George and his friend are at the beach. They will have a fun day at the

	has a surprise for George. He took George to the beach.	beach.
Curious George and his friend are spreading out their blanket.	George helped spread the beach blanket and set aside their lunch. He was looking forward to a picnic, but it was not yet time to eat…..	Curious George and his friend put down a towel and put up an umbrella. They have a picnic basket so they can eat later.
Curious George is reaching inside the picnic basket to get something to eat.	Back at the beach blanket, George was hungry for a snack. No one would miss just one cracker, thought George.	Curious George is hungry. He wants something to eat. He is opening the picnic basket to get some food.
Curious George is looking at the cracker he got out of the picnic basket.	He took one out and put it on a napkin. It looked good.	Yummy! Curious George got a cracker to eat.
Curious George is looking in the basket for some cheese.	Now if he only had some cheese.	Now he wants something else. Curious George wants to put something on his cracker.
Curious George's cracker is gone	Ut-oh. What happened to his cracker?	Surprise! Curious George's cracker is gone.
Curious George is reaching in the basket to get another	Curious George found another cracker then turned around.	That is o.k. Curious George can get another

cracker.		cracker.
Curious George got out another cracker but now his cheese is gone	But now his cheese was gone! Who could be taking his snacks?	Oh-no! Now the cheese is gone.
Curious George is hiding behind the picnic basket to see what is stealing his food	George was curious. He put down his cracker and waited.	Curious George is hiding behind the picnic basket. He wants to see what is happening to his food.
A sea gull is stealing his food.	Now George saw who was taking his treats. It was a sea gull- and he was still hungry.	Oh my gosh! A sea gull is taking Curious George's food.
Curious George is feeding the Sea Gull	George took another cracker, and the bird took it right out of his hand. What fun to feed a sea gull.	Since the bird is hungry Curious George is sharing his food with the seagull. He is happy to give the seagull some of his food.

As you develop your own adapted stories based on the needs of the children who you work with consider asking yourself the following questions as a means to evaluate the cognitive and linguistic complexity of the story you have written.

Cognitive Complexity

- Does the text match the picture?

- Is it a single episode story?

- Is the story about a topic familiar to the child?

Linguistic Complexity

- Is the story primarily at the child's language level (e.g., subject-verb-object, subject-verb-emotion)?

- Is most of the vocabulary familiar to the child with the exception of two to three words which can easily be taught within the context of the story?

- Does the story contain early developing theory of mind concepts such as expression of characters' desires (e.g., wants, needs) and internal emotional states (e.g., happy, sad, hungry)?.

- During the shared reading experience are questions presented to the child related to the story (e.g., Where is Curious George?) versus insignificant details (e.g., What color is the girl's shirt?)?

Clinical Application

The quest of supporting a child with CLP to acquire language is a complex task. The complexity of language intervention needs of these children demands an approach which addresses various facets of language within a naturalistic context. Accelerated learning can be achieved when there is just the right balance or "Tricky Mix" between challenge and support (Nelson et al., 2001) An intervention that supports the development of a multitude of language skills simultaneously developing the child's narrative skills has proven not only an effective but also an efficient approach. This article purported to identify the deficiencies of many children's stories, the vehicle often used in many narrative or story based interventions, in matching the cognitive and linguistic abilities of children with CLP. Strategies for making stories accessible for this population were also shared. Creating stories which are meaningful and manageable for

children with CLP is the first step toward achieving this "Tricky Mix" to support successful learning.

The author of this article along with colleagues (Dodd & Franke, 2009; Franke & Durbin, 2011) have found structured story lessons utilizing adaptive stories can be an effective tool in teaching children with CLP critical language and narrative skills. A typical story lesson gives the child multiple opportunities to listen to the adapted story, imitate and practice key sentence patterns, demonstrate understanding the meaning of the story (i.e., answer comprehension questions and sequence picture story sequence cards), and practice retelling the story. The following is a sample story lesson sequence.

- Child *listens* to the adapted story

- Child *imitates* the sentences

- Child *answers* questions

- Child *receptively sequences* the pictures

- Child *independently sequences* the pictures

- Child *retells* the story with picture cues

- Child *independently retells* the story.

As would be expected, throughout the story experience the adult responds to the child's comments about the pictures. The adult further guides the child's language development using various language facilitating techniques such as recasts and expansions.

Although the focus of this article was about adapting children's stories the principles can be applied to other media forms as well. With the target goal to teach the child how to tell a story it is important to choose pictured story sequences or create your own stories with a predictable story structure, and a character(s) who experiences simple emotions in response to a

problem and subsequent resolution. With the advent of advanced technologies creating your own stories is easy. You can create a personalized story using photos taken by the clinician or family member of the child. Photos can then be imported into PowerPoint to create a story or using story apps (e.g., Pictello™). Additionally, there are even apps that allow you to create your own stories (e.g., Toontastic, Story Patch, Story Kit, Puppet Pals, Making Sequences).

The deficit profile of the child with complicated language problems is one that is not easily remediated. We, as speech language pathologists, are constantly challenged to find just the right "Tricky Mix" to support these children and their language intervention needs. The charge is set forth for us to constantly examine how we can challenge these children providing them just the right amount of support for them to be successful learners.

References

AssistiveWare. (2011). Pictello™ (Version 1.4.11) [Mobile application software]. Retrieved from http://itunes.apple.com/http://itunes.apple.com/

Bishop, D. V. M., & Edmundson, A. (1987). Language impaired four year olds: Distinguishing transient from persistent impairment. *Journal of Speech and Hearing Disorders, 52,* 156-173.

Campbell, R. (1982). *Dear zoo.* Simon & Schuster Children's Publishing

Cowley, J. (1999). *Mrs. Wishy-Washy.* New York: Philomel Books.

Dodd, J. L. (2010). Thinking outside of the assessment box: Assessing social communicative functioning in students with ASD. *ASHA Division 16: Perspectives on School Based Issues, 11*(3).

Feegans, L., & Appelbaum, M. (1986). Validation of language subtypes in learning disabled children. *Journal of Educational Psychology, 78,* 358-364.

Franke, L. K. & Dodd, J. L. (2009). *Impact of story complexity on story comprehension and retell skills of children with complicated language problems.* Workshop presented at the American Speech-Language-Hearing Association Annual Convention. New Orleans, LA.

Franke, L., & Durbin, C. (2011). *Coaching comprehension, creating conversation, nurturing narratives.* Shawnee, MS: AAPC Publishing.

Haywoodsoft, LLC. (2011). Story Patch (Version 1.2.1) [Mobile application software]. Retrieved from http://itunes.apple.com/http://itunes.apple.com/

ICDL Foundation. (2011). Story Kit (Version 1.1.) [Mobile application software]. Retrieved from http://itunes.apple.com/http://itunes.apple.com/

Launchpad Toys (2012). Toontastic (Version 1.71) [Mobile application software]. Retrieved

    from http://itunes.apple.com/http://itunes.apple.com/

Nelson, K. E., Welsh, J. M., Camarata, S. M., Tjus, T., & Heimann, M. (2001). A rare event

    transactional model of tricky mix conditions contributing to language acquisition and

    varied communicative delays. In K. E. Nelson, A. Aksu-Koç, & C. E. Johnson (Eds.),

    Children's language: Interactional contributions to language development (Vol. 11) (pp

    165-193). Mahwah, NJ: Lawrence Erlbaum Associates.

Paul, R. (2007). *Language disorders from infancy through adolescence: Assessment and*

    intervention. St. Louis, Missouri: Mosby Elsevier.

Polished Play, LLC. (2011). Puppet Pals (Version 1.8.1) [Mobile application software].

    Retrieved from http://itunes.apple.com/http://itunes.apple.com/

Prizant, B. M., Wetherby, A. M., Rubin, E., Laurent, A. C., & Rydell, P. J. (2006). *The*

    SCERTS™ model: A comprehensive educational approach for children with autism

    spectrum disorders. Baltimore, Maryland: Paul H. Brookes Publishing Co.

Rey, M., Rey, H. A. (1999). *Curious George goes to the beach.* Boston, MA: Houghton Mifflin

    Company.

Swanson, L. A., Fey, M. E., Mills, C. E., & Hood, L. S. (2005). Use of narrative-based language

    intervention with children who have specific language impairment. *American Journal of*

    Speech-Language Pathology, 14, 131-143.

Zorten (2012). Making Sequences (Version 1.2) [Mobile application software]. Retrieved from

    http://itunes.apple.com/http://itunes.apple.com/