

Stickwriting Stories: A Quick and Easy Narrative Representation Strategy

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Children with language disorders frequently have deficits in narrative skills (Gillam & Johnston, 1992; Graybeal, 1981; Liles, 1985, 1987; Liles & Purcell, 1987; MacLachlan & Chapman, 1988; Merritt & Liles, 1987; Purcell & Liles, 1992), which are often exacerbated by difficulties with writing (Catts, 1991, 1993). In targeting oral and written narratives for these children, two concerns are present: facilitating oral narrative production and aiding students in the written composing process.

This article describes a notational system called pictography and the benefits that have been observed when using it in clinical practice. With pictography, children draft stories by representing characters, settings, and sequences of actions with simple, chronologically organized stick-figure drawings. As a quick and easy representational

strategy, pictography can be useful in both individual language intervention and inclusive classroom settings.

WRITING, DRAWING, AND OTHER NOTATIONS

Narrative is a challenging target for intervention. Narratives are complex, multilayered entities. To produce a coherent, cohesive (and captivating) narrative, a narrator must draw on and coordinate specific memories, as well as knowledge about events, people, context, social interactions, narrative structure, and linguistic knowledge (Hudson & Shapiro, 1991). The narrator must attend simultaneously to discursive organization, local sentential relations, and lexical choices (Karmiloff-Smith, 1981). Unlike sentence-level language, such as subject-verb agreement or word definitions, which can be remembered for short spans of time, the complex discourse form of narrative requires some method of preservation for reflection and analysis.

Writing

An obvious method for preserving narrative is writing. Written composition of narrative allows the child to reflect on his or her own work, to learn from models, and to represent the next narrative. Unfortunately, writing is slow and laborious for the child with language and literacy deficits. The dynamic interchange of the language intervention setting often grinds to a halt under the demand to write.

In classroom written composition, the weak writer is faced with further demands, which even typically achieving children find challenging (Bereiter, 1980; Dyson, 1989; Sulzby, 1985). In addition to the concerns that are common to oral and written language, such as the generation of ideas and the structuring of language around these ideas,

ABSTRACT: Narrative is an important target of language intervention. However, oral narratives are difficult to remember, review, and revise because of their length and complexity. Writing is an option, but is often frustrating for both student and clinician. This article introduces a notational system called pictography that can be useful for temporarily preserving story content. Children represent the characters, settings, and sequences of actions with simple, chronologically or episodically organized stick-figure drawings. As a quick and easy representational strategy, pictography is applicable to both individual language intervention and inclusive classroom settings. This article describes benefits observed in narrative intervention, including facilitation of a time sequence, increased length and quality, and a greater focus on narrative content rather than on the mechanics of writing.

KEY WORDS: language intervention, writing, narrative, pictography

there are issues that are specific to writing, such as the mechanics and conventions of the printed word and the need for clarity of meaning for an unknown or displaced audience (Bereiter, 1980). Expectations for written narrative are higher than those for oral narrative concerning the quality of expression, choices of lexicon and sentence expression, and the cohesion and coherence of text. The composing process itself is complex, including processes such as generating ideas, organizing ideas, developing a procedural plan (how the writer will approach the task), developing a content plan (what will be written), translating ideas into written words, reviewing and revising what has been written, and editing (Flower & Hayes, 1980).

For children with weak language and literacy skills, difficulties with the mechanics of writing interfere with the quality of ideas expressed and the quantity of language used (Dyson, 1989; Outhred, 1989). Once the work is on paper, limited language skills hamper planning, composing, revising, and editing. Even when manageable "stages" are set, such as outline, rough draft, and good copy, the demands of writing at each stage can be daunting for these students.

Drawing

Drawing is an alternative to writing. In regular education, drawing is recommended as a pre-writing strategy for kindergartners and first graders—as a way of stimulating story ideas and providing visual reminders of details that can be incorporated into stories (Calkins, 1986; Myers, 1983). Following drawing, children either dictate their stories to an adult, or attempt to write their own (with invented spelling or other writing-like markings on paper).

Because the static, detailed, aesthetically based images of drawing can represent only very limited aspects of a narrative, the chronological and causal organization of the narratives of older elementary students cannot be adequately supported by drawing. Continued use of drawing is discouraged because it may result in simply writing about the drawing, rather than extending from and elaborating on the idea pictured (Calkins, 1986). However, by shifting the focus in drawing from its aesthetic, imaginal properties to its more communicative and cognitive potentials, drawing could be used in support of more sophisticated discourse activities such as the rehearsal, composition, and revision of narrative composition. This change in focus moves drawing into the larger family of representational devices called notations: external, culturally developed, symbolic representations used for communicative and cognitive purposes (Karmiloff-Smith, 1992). Writing, mathematics, and musical notation are examples of formalized and conventional systems. Some systems, such as dance notation, are more idiosyncratic and variable (Goodman, 1968). Other systems, such as maps, are relatively transparent in meaning and are used widely without formal instruction.

Children can be successful inventors and users of notations (Bolger & Karmiloff-Smith, 1990; Karmiloff-Smith, 1979, 1992; Vygotsky, 1978). Karmiloff-Smith (1979) reported that 7-year-old children could successfully

invent and use a variety of map notations (e.g., schematic forks in the road or "R" for "take the right fork") in the service of recall. Without a prior model, the children were able to invent this notation in order to aid learning an ambulance route on a paper map. They produced effective mappings and devised increasingly sophisticated, pluri-functional, and abstract forms of notation over the course of the task.

Pictography as an Alternate Notational Form

A notation that combines the two familiar forms of drawing and writing is pictography. Pictography, literally "picture writing," can take many forms, covering a range of iconic representations. The pictographic forms of interest in this article consist of simple, schematic pictures, organized in a left-to-right, chronologically based manner (Figure 1). This pictography does not represent language directly, on a word-by-word basis. Rather, it represents ideas and events that could also be conveyed by language (Gelb, 1952). As such, only a handful of simple schematic scenes are required to represent complex language events such as narratives.

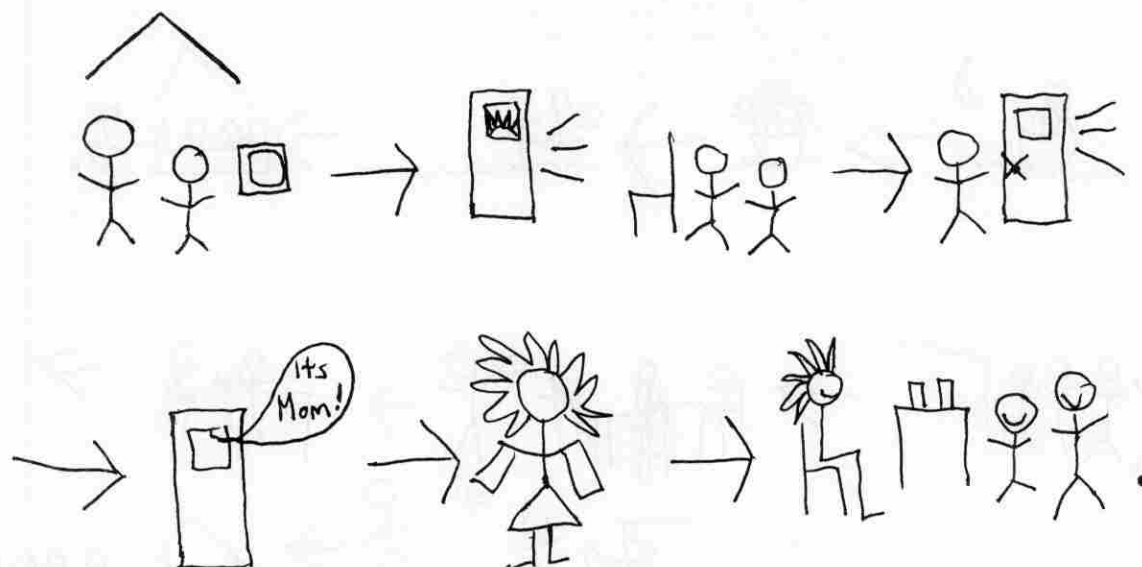
Pictography has a long history of human use, dating from Paleolithic times, with documentation of events such as hunts and voyages (Gelb, 1952). Apparently easy to invent and adaptable to specific purposes, it has occurred independently in various places and across various points in history. The iconic representations are similar to those used in international signage (e.g., stick figure for men's restroom) and augmentative communication systems, which are relatively transparent, transcending language barriers, literacy limitations, and even significant degrees of cognitive deficit.

The pictography discussed herein falls within the general domain of graphic or semantic organizers, which have been shown to increase the comprehension and writing of expository text for older elementary and middle school students with learning disabilities (Idol, 1987; Idol & Croll, 1987). Semantic organizers are schematic diagrams of critical information and related ideas, consisting of words, phrases, or occasionally pictures, in schematic networks that emphasize the relationship among concepts (Pehrsson & Denner, 1988). Taxonomic organizers are the more common arrangement, and consist of main ideas, subordinate ideas, and supporting details that are organized hierarchically. Pictography falls within episodic organizers (chronologically or causally linked series of events, sometimes with supporting actions and setting information radiating out from the main events) but with pictorial representation to maintain the ease of use for children with limited writing ability (see the section entitled Further Thoughts for written possibilities).

OBSERVATIONS ON PICTOGRAPHY WITHIN NARRATIVE INTERVENTION

Pictography provides mnemonic and organizational support for the recall and discussion of oral narratives and for drafting written narratives as part of the composing

Figure 1. Clinician's pictographic planning for a story about a scary visitor, who turned out to be the children's mother with a new hairstyle.



process. As a low-tech tool (pencil and paper) that children can use independently, quickly, and easily, pictography has the potential to be a valuable strategy in both inclusive and individual intervention settings. In the following sections, observations of pictographic use during language intervention will be described.

I consider the tool to be applicable to a myriad of language goals within a narrative context, but this article deals mainly with narrative complexity and quality. The observations come from a study that examined the effects of pictography on narrative complexity and quality with third- and fourth-grade students with language-learning impairments (McFadden, 1995), with some additional comments based on general clinical experience with this notational tool. The effects discussed for narrative length and temporal organization have also been obtained since that time in an experimental evaluation (McFadden, 1998).

We Call It Stick Writing

When describing pictography to children, I call it "picture writing," reflecting the use of pictures as writing. I find children often call it "stick writing," apparently finding the stick figure people to be salient representations. As few as three scenes (beginning, middle, and end) or as many as a dozen may be used to represent a story. I emphasize directionality and movement through time with arrows between each action scene. One child with whom I worked introduced the "period" to indicate the end of the story (incidentally highlighting the "writing" aspect of the little drawings).

Students learn the physical form of pictography easily: clusters of stick figures in multiple scenes linked by left to

right arrows (Figure 2). Within as little as one teaching session, students ranging from second grade to seventh grade can accomplish the schematic drawings and graphic organization. Their sketches are sometimes difficult to interpret for an adult, or even a week later for the child him- or herself, if they do not include key details (e.g., several scenes consist of one stick figure), but even rather opaque pictography serves admirably as a temporary mnemonic.

Sometimes, children will get caught up in the aesthetics of their drawings and have to be reminded that the drawings should be "quick and easy." Occasionally, a diversion—undesirable for narrative construction purposes—may occur. This involves what I term descriptive pictography: decomposition of a single scene into elements in a linear arrangement (e.g., a picture of a bear in a forest reaching into a salmon stream is sketched as "bear → forest → some fish"). The student may need some additional examples to be guided away from this representation, which provides little advantage over an artistic drawing, and into chronological representation.

Using Pictography

Students learn the form of pictography quickly, needing only occasional reminders to keep it "quick and easy," rather than providing artistic elaborations. The pictography is then used in language intervention to provide a visual base for working on narrative structure and more general goals such as sequencing, vocabulary, sentence structure, and listening comprehension.

Although students often have story ideas, they need help sequencing and chunking the ideas in manageable pieces, both for the story structure and for the visual representation.

a)

b)

Facilitation of temporal ordering of events can be seen clearly in 9-year-old Kyla's stories. These stories were obtained by showing Kyla color photos of various events and having her select one on which to base a story. I then

asked her for a story idea about the picture and told her to plan such a story to retell to the group immediately afterward. The stories were planned with no verbal prompting from me or other students in the group. Kyla represented the first two stories (1a and 1b) with art drawing and writing, and the latter two (1c and 1d), approximately 2 weeks later, with pictography. In the intervening time, we had had several sessions reading and discussing stories, as well as cooperatively creating stories using pictography. This student clearly had great difficulties with story formulation, but she was awakening to the possibility that *something* might happen next, and pictography appeared to be facilitating this process.

- 1a. Art drawing: My story is about a house and kids are playing basketball. And there's sand on it and more rock and a lot of grass. The kids are happy what they're doing.
- 1b. Writing: My story is about an Easter egg hunting at the church. And all the people with their little kids Easter hunting. And the little girl, she had the most eggs. And the little girl is finding more eggs. The end.
- 1c. Pictography: My story is about a lady. And two ladies are dancing on the stage. And then some guys were doing the violin stuff. And then get on the stage. And the lady keep on dancing. And then when they finish they get off the stage. And they go get ready again. The end.
- 1d. Pictography: My story's about a lady and a guy are getting married. And they went over the hill. And then over the hill they went again. Then they were running. Then the lady accident had a baby.

Facilitating a content focus. Bereiter and Scardamalia (1982) suggest that the saliency of the words and sentences on the page hinder children from stepping back and considering alternative ways of expressing themselves. Pictography, lacking the distraction of words and sentences on the page, allows greater attention to the parts of writing that are often overlooked during revision: content and organizational issues. Idea production can be foremost, leaving the issues of text production until later.

The content focus can be seen even in initial representation, where no revision has occurred. On one occasion, I asked six students—two fairly competent writers and four weak writers—to represent one story using pictography, then one story using writing, without verbal prompting (McFadden, 1995). The stories were based on color photos of children at play and were composed in the same session, first with pictography, then with writing. When I compared the pictography and writing narratives, I found that pictography was associated with longer narratives for all the students willing to write and with better quality narratives for four of them (Figures 3 and 4). One weak writer, Samuel, was not willing to write, producing two pictographic samples instead (children who disliked writing had no aversion to pictography). Because pictography was elicited first from all six students, Samuel's longer and better quality second story provided some evidence that the

Figure 3. Comparison of narrative length for pictographic and written planning. (Note. Samuel provided pictographic planning for both samples.)

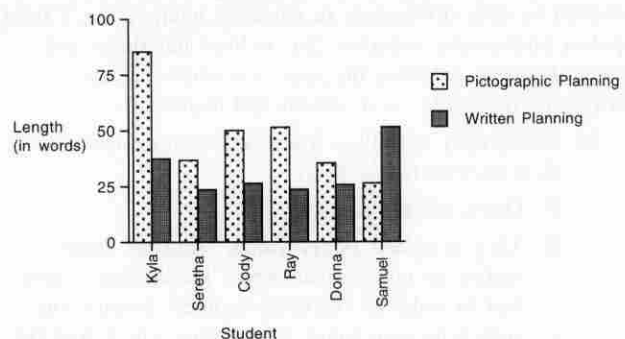
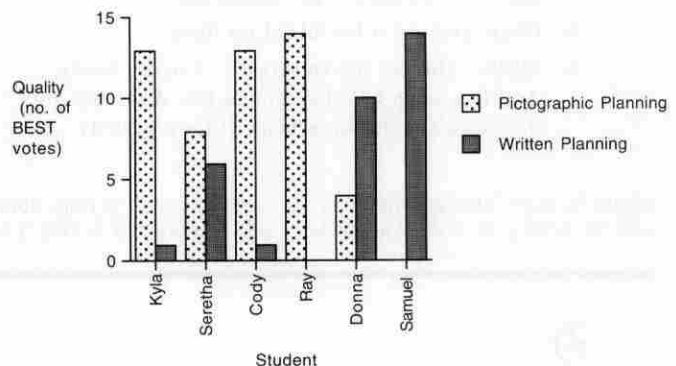


Figure 4. Comparison of narrative quality for pictographic and written planning. (Note. Samuel provided pictographic planning for both samples.)



second sample was neither less interesting nor more fatiguing than the first.

Further evidence for the benefit of pictography in focusing on content comes from a detailed analysis of the transcript of one 8-year-old student, Ray, as he composed the two narratives. The notations and transcript excerpts show clearly how pictography aided and writing inhibited Ray's narrative performance. Figure 5 shows Ray's pictographic and written notations. The four small pictographic scenes were easily interpretable for Ray, but his writing was difficult for him to read, even immediately after putting it on paper.

Ray was a student who talked while he worked, and his commentary revealed his attentional focus. Ray's conversation in the pictography situation focused around what he planned to say, with some comments about what he would draw (Figure 6). In the written situation, Ray focused fairly exclusively on spelling, attacking his story on a word-by-word and sound-by-sound basis (Figure 7). When he dealt

with story content, such as with a Sega purchase, Ray reduced a full spoken sentence, "And they like the Sega they gonna get cuz it's gonna be one of those CD Segas" to a written single word, "Seda." The different attentional foci, along with Ray's difficulty reading his own work, resulted in clear differences in narrative quality: Ray's final spoken pictography-narrative (2a) is brief but fluent and comprehensible, whereas the spoken rendition of his writing-narrative (2b) is dysfluent and disjointed.

2a. Pictography narrative, fluent and comprehensible
(E = examiner, R = Ray)

E: Okay, tell me the story.

R: They're asleep {story voice}. And the alarm waked up one brother. And : the brother : (um) had to wake up the other brothers because the snowcone man came. And it was a dad. And the dad get them free snowcones. And they're still looking at the dad : driving in his snowcone van. The end.

2b. Writing narrative, dysfluent and disjointed

E: Okay, now tell us the story.

R: The little> What it? Boy>

E: Was it the little boys or kids?

R: Kids. Went inside. I got mixed so>

E: Okay, you got a bit mixed up there.

R: Inside : (in) lot the snowcone : I mean drinks. And the Seiga CD they gonna get. And they got the Seiga C. The little book {title repeated}.

OBSERVATIONS ON THE INSTRUCTIONAL BENEFITS OF PICTOGRAPHY

A number of instructional benefits occurred in the small group and classroom contexts. These included provision of a salient visual model for students to develop their own stories, enhancing possibilities for cooperative writing, and ease of fit within a typical classroom writing composition process.

Pictographic Models

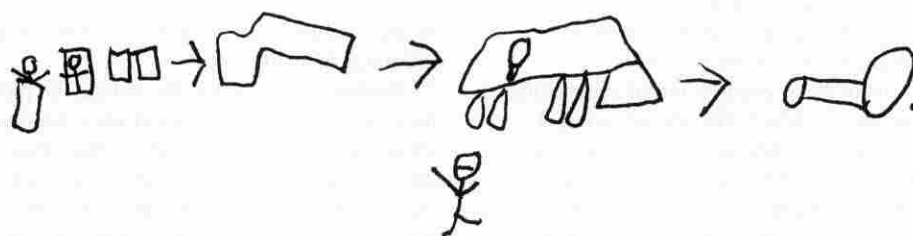
Teachers and clinicians may provide examples of stories to give students ideas and possibilities for their own work. However, these auditorily presented models may not provide sufficient scaffolded support for students who have difficulties composing narratives. Pictography provided a salient visual avenue for presenting a model story. One example of the scaffolding support provided by pictography in a classroom context is presented. The classroom story (3a) and 8-year-old Donna's story (3b) are very similar. In other sessions not involving pictography, I had talked about story ideas and had asked higher achieving students to tell stories to the class as examples, but the similarity between model and student story that Donna (and many of the typically achieving students) showed in the pictographic situation did not occur with these previous story ideas.

3a. Clinician's demonstration story

Once, a girl was walking home from school.
Suddenly, she saw smoke coming out of a window

Figure 5. Ray's planning notation: (a) pictography of a story about boys spying a snowcone truck and running to buy a snowcone; and (b) writing of a story about boys selling Kool-Aid to buy a Sega computer.

a)



b)

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thie bie. The likettle bet.

Figure 6. Planning talk around pictography, content focus.

E: Um : how do you want your story to start?
 R: (First) first they're asleep.
 R: Then the clock wake them up.
 E: Okay, you want to put that down with quick and easy picture writing.
 - 0:00 {start time for the composing process}
 = Ray starts drawing.
 :10 {pause time}
 E: Okay, so which one is that?
 E: One boy?
 R: Uh hum.
 E: Uh hum.
 E: And so is he in bed right there?
 R: Yeah, then (he) he hears the snowcone man.
 R: Then he wake up his other brothers.
 = utterances omitted continue discussing the story and what R. will draw.
 R: This boy has to run after it because he had to buy all the other ones their snowcone.
 E: Ohh, he had to do all the work?
 R: And they were still spying {chuckles}.
 E: Okay, so do you want to put that one down?
 E: Then>
 R: Hum.
 :03
 E: {quietly} The others are still spying, are they?
 :04
 R: I'm gonna make them two go get the snowcones.
 E: Okay, and one is spying.
 :04
 R: Okay, finished.
 E: Okay, so how does your story end?
 R: They were still looking.
 E: They were still looking, at the end.
 - 2:48 {end time}

Note. E = Examiner, R = Ray.

of a house. "Oh no, what should I do!" she said. She ran to call 911. Pretty soon, a fire truck appeared. Its siren was blaring and its lights were flashing. The firemen jumped out. They began spraying the fire with a long water hose. Then, they heard a "meow." One fireman ran up to the door and tried to open it. But it was too hot. Then he got out an ax. He broke down the door. He ran in and grabbed the cat. When the fireman came out, everyone started cheering, "yeahhh!" The cat was very happy and so was the fireman. The end.

3b. Donna's story

One day I was coming home from school. I saw a fire. I saw a little girl. She was in the house. And she screamed, help, help! The girl run and called 911. The fire engine was coming and took the water hose out and : splashed some water on the house. Then the girl was happy. The end.

Donna's work could be considered copying. However, as Vygotsky (1978) posited, provision of a model for imitation is a way into learning. This student achieved a higher level of performance than she had in other story composition situations. Donna's imitated story can be compared to an earlier story (3c), represented with writing and art drawing

Figure 7. Planning talk around writing, spelling focus.

E: Okay, let's see, so how does your story start?
 - 0:00 {start time for the composing process}
 = R starts writing.
 R: The.
 :05 {pause time}
 R: Little.
 :04
 E: You don't have to write all the words.
 E: You can just write the important words.
 R: Like the little, L I K E L, like.
 :04
 R: To : sell, to sell : ss drinks, O E.
 E: So they like to sell drinks.
 E: And then what happens?
 R: (And and) and then the little {spelling under breath}.
 :06
 R: Like the Sega.
 E: Okay, so they like to sell drinks.
 R: And they like the Sega they gonna get cuz its gonna be (um) one of those CD Segas.
 E: Okay, so it's gonna be a CD Sega.
 R: Uhhum.
 E: Put something down like that?
 :05
 R: Ss : Segas.
 :05
 E: And how does the story end?
 R: They buy it.
 E: They buy it?
 E: Okay, put something down there.
 :04
 R: They buy, B, : the.
 R: The end.
 E: Okay, the end.
 - 2:19 {end time}

Note. E = Examiner, R = Ray.

combined. This story is shorter, episodically simple, and lower in overall quality.

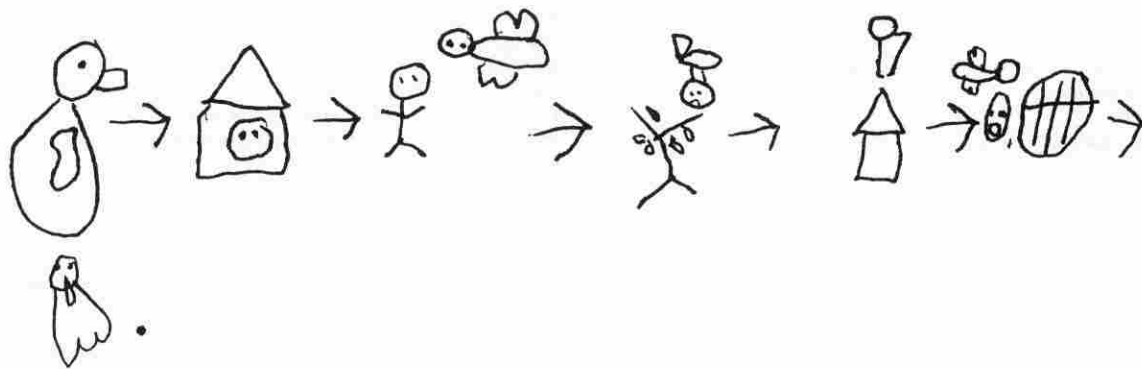
3c. Once upon a time the cat live in my mom's house. Me and my mom and my sister did not know the cat was living with us. The black cat lived in the living room. The end.

Whereas Donna's creation of her fire story (3b) is clearly dependent on the pictographic model, it would be reasonable to expect that repeated opportunities with such scaffolding, along with demonstrations of more independent storymaking from her peers, would allow her to gradually move away from this support into more independent, creative productions.

Cooperative Writing

Cooperative story writing worked well with pictography—one student could devote his or her full attention to the story while the other student recorded pictography. Example 4 shows a cooperative story told by Cody, a reticent speaker. Figure 8 shows the pictographic representation for this story by Ray, a poor writer who would not normally take the scribe role. The combination was effective, allowing both students to focus on one aspect of

Figure 8. Ray's pictographic planning for a cooperative story with Cody about an eagle looking for a meal and returning to a haunted house with a severed head.



narrative composition and to produce a whole that was greater than each could do individually.

4. There was an eagle. He lived in an old house with goblins. He was flying in the sky. He saw a man. He took the man's head. He took it to the house. Then they ate the skull. And they're all full. The end.

Classroom Composition

In the regular classroom, typical students produced long (seven or more) pictographic sequences when representing their narratives. A classroom teacher with whom I worked, Ms. L., had her third- and fourth-grade students use pictography in composing imaginative narratives as practice for the writing portion of the statewide achievement test. The students were asked to imagine and write a story about a day in the life of a dinosaur, and the adventures that might happen to it. Ms. L. discussed story possibilities then modeled a story, using pictography on chart paper. She did a long story, with 15 action scenes. The students then did their own pictographic drafting, followed by written composition.

Ms. L. reported that she typically had students write in a two-stage format—rough copy and good copy—and had conceived of pictography as a pre-writing stage, occurring before the rough copy. However, in this case, she decided that the story quality of the written work following the pictography was good enough to leave out the final written copy. Ms. L. was happy with the outcome. She felt that pictographic drafting added time to the composition process (in the three-stage perspective). However, for the weaker students, pictography produced an outcome that was equal to the written drafting without the accompanying frustration.

FURTHER THOUGHTS ON PICTOGRAPHY

Pictography can be viewed as both a compensatory and a language development strategy. Speech-language patholo-

gists concern themselves with alternate and augmentative methods of communication for individuals who are temporarily or chronically deficient in communication skills. This approach, although not intended as a means of communication, falls within such a domain. Students with weak writing can draft compositions in the classroom, prior to turning them into written work.

Language development is a second application and is the major one for which I used pictography. Initially, when targeting narrative language, I wrote stories as children dictated them or I tape-recorded them. Neither method was satisfactory for providing an easy-to-examine story representation. I already used the quick sketch method of pictography on my own to represent stories that I would model in the therapy setting. I asked the students to do the same and discovered that they easily learned and used pictography. We could then use the pictographic representations in a variety of conventional language development activities, such as for moving children from producing a descriptive to temporal structure, or from two events to a beginning, middle, and end. Within the narrative context, and supported by the concrete visual organization of pictography, I could also introduce goals such as sequencing, vocabulary development, sentence structure, and listening comprehension.

Listening comprehension can be targeted separately from narrative creation using this method. While students are listening to a story, the clinician or teacher periodically stops reading and asks them to quickly sketch the part of the story they have heard (D. Massine, personal communication, November 23, 1996). According to Massine, the students attend better and recall more details this way than by simply listening to the story. Collaborating with teachers in provision of this alternate notational method for students challenged by writing (or listening) is one recommended application for which I have provided some observations.

Temporal structure is a relatively simple narrative form. Three-event time sequence moves easily into setting, complication, and resolution. For this early episodic

structure, colors can be added to the sketches in order to highlight the chronicity and structure of stories: green for the beginning or "go," red for the middle or problem, "stop," and blue for the end, "reflection" (D. Massine, personal communication, November 23, 1996). In elaborating the middle of the story as a problem-resolution, then as a problem-attempts-resolution, I found that the pictography continued to be applicable. Multiple attempts to solve a problem could easily be represented with branching circles and simple symbols (Figure 9). I would model such elaborations on previously constructed stories, and have the children revise their own stories into more complex forms.

An additional benefit observed in the older elementary children was a movement into note-taking. I would model schematic drawings, symbols such as punctuation marks, and occasional words. Some of the older students would go further, using words instead of pictures, such as a speaking balloon with dialogue or phrases such as "kid lost" instead of a sketch. This was not an application of already present abilities: When asked to draft stories with writing, the children generally wrote full sentences, even addressing spelling and punctuation. In the pictographic format, with the requirement for "quick and easy," they spontaneously used key words and brief phrases.

I generally directed this tool at children of second grade and above. From my experience, younger children can draw scenes, but their drawings are not a "quick and easy" schematic of what could be a more elaborate piece of artwork—the drawings are their artwork. They also have difficulty keeping in mind that their drawings are intended to represent a story, and that a story told should adhere to their drawings. However, children as young as 4 years of age can tell stories from adult-composed pictography. This

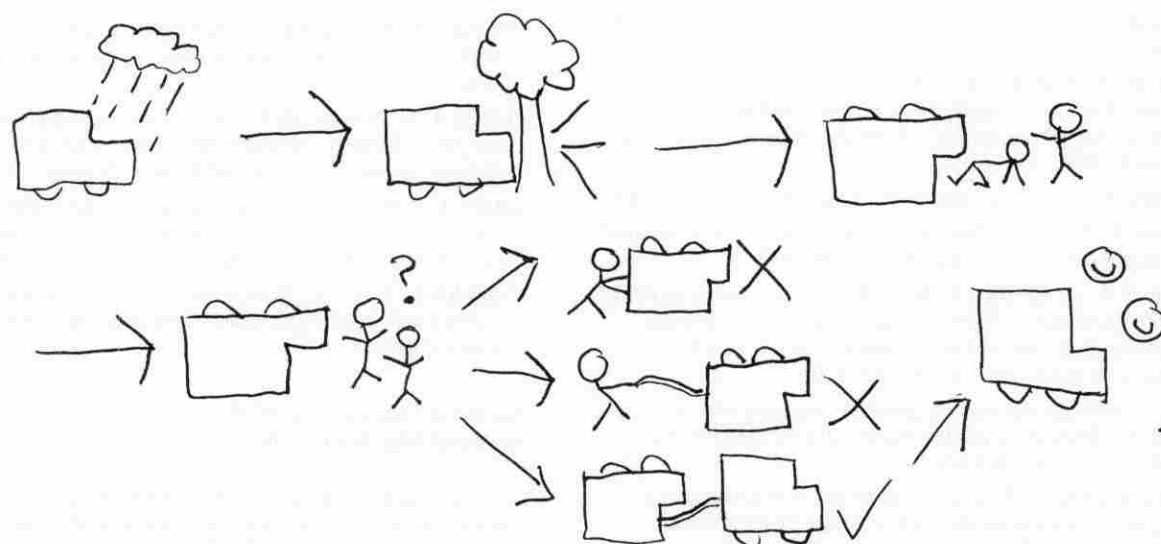
could be used in storytelling activities. Paley's (1981) kindergartners dramatized stories that they had composed and dictated to her. Pictography could also be used in that setting, as a quick and easy "readable" alternative by the kindergarten-age directors and actors.

SUMMARY AND CONCLUSION

In this article, I have described the use of pictography in narrative intervention. Many language goals can be targeted within the context of a temporal, visual event representation. Specific narrative benefits observed include the facilitation of a time sequence, facilitation of a focus on content rather than spelling, and a greater length and overall quality. Pictographic representation can be applied to more complex episodic structure and can help a student move into note-taking possibilities. It can also be used as a "readable" representation for preschooler storytelling and dramatics. Other positive instructional features include: a quick, simple, flexible, visual, non-print model that is applicable to both oral and written narrative composition; ease of learning and use by elementary-age students without regard to literacy level; suitability for cooperative writing, where the weak writer can serve as scribe; and fit with a classroom teacher's written composition process.

Pictography can be an effective narrative representation strategy, especially for students who have difficulty with writing. When students use simple symbols and graphic organization to represent characters, problems, actions, and resolutions, they have a temporary reminder of story content that lessens the on-line creation demands of spoken

Figure 9. Clinician's pictographic planning for a story about a truck that gets flipped over in an accident and must be righted, with two unsuccessful attempts and one successful attempt.



and written narratives. I recommend that speech-language pathologists include pictography in their arsenal of strategies for discourse-level language intervention.

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