WHAT EIGHT-YEAR-OLDS KNOW ABOUT EXPOSITORY WRITING

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This article grows out of a research project I have just completed, looking at the development of reading and writing abilities in school-age children ages 8, 11, and 14.[1-7] My concerns, as I began the project, were motivated by my optimism about what children *can* rather than cannot do, and by my theoretical conviction that reading and writing are inextricably bound to language and thought — that research in one domain should be informative to research in the other domains. In particular, I was concerned that the child language research of the 1960s had helped us understand a great deal about children's spoken language acquisition, but that much of what we had learned has been neglected by present-day researchers attempting to understand reading and writing acquisition.

Child Language

Studies of child language suggest that children develop their own rules in the acquisition of oral language — and these rules are natural, consistent, and different from adult rules.[8-10] Further, directly teaching children to use the adult rules was found to be unproductive. Much current reading and writing "process" research runs counter to these notions and attempts to identify adult strategies and teach them to young children. To bridge what appeared to me as a theoretical chasm, my work extended the child language work into the study of reading and writing. I set out to examine the "child" structures and strategies that youngsters use when they read and write — what these structures and strategies are and how they change across the grades.

This article will describe the range of expository structures that eight-year-olds use to organize their ideas as they write reports. I do this in an attempt to understand how *children* approach expository structure, with concomitant implications for the development of more effective models of instruction. First, however, I will describe some of the other aspects of what eight-year-olds know[11-13] that have particular relevance to understanding how they approach exposition.

In the original project, 67 eight-, 11-, and 14-year-olds read and wrote stories and reports. This allowed me to compare the strategies they used across genres and across reading and writing. Data were gathered by observing the students as they read and wrote, tape recording their self-reported thoughts and behaviors, probing the strategies they used when they read or wrote, and examining the language and organization of the work they produced. Their performance made it clear that eight-year-olds have well-established understandings of the uses of exposition (as fact-giving), and they use this knowledge to organize what they write. The structures they use are logical, systematic, and directly related to ways in which exposition is perceived as useful.

Vygotsky[14] suggests that children begin using language for functional and informational purposes — as tools to get things done — before they use it to internalize thoughts. Those of us who have had an opportunity to listen to young children know that they share information all the time. The "show and tell" kindergarten activity, for example, is one very common way of sharing information, and is based upon routinized expository structures of its own. While eight-year-olds' expository discourses are consistent, logical, and appropriate for the knowledge-telling functions they are meant to serve, they tend to be different from the academic forms that predominate in school writing, e.g., cause/effect; compare/contrast; problem/solution.[15-16]

Studying Written Exposition

The eight-year-olds who participated in this study were third graders in an upper-middle-class suburban school. For the collection of writing samples, they were seen individually and asked to "Think of something you know a lot about. It can be something you studied in school, a hobby, or something you're just interested in. Write a report about that topic for someone your age to read." When a few children said they hadn't been taught how to write reports yet, they were told to try to "do it anyway." Reports were chosen as a simple form of exposition[17] where the writer is expected to "keep to the facts." The same children were also asked to write a story. "Make up a story about going somewhere, doing something, or meeting somebody for the first time. Write a make-believe story for other students your age to read." Although I will not present an analysis of the children's

stories in this paper, I will at times refer to some of the findings for purposes of comparison.

Analysis

Each of the papers the children wrote was analyzed using my adaptation of Meyer's prose analysis system.[18-22] This adaptation generates tree diagrams which depict the interrelationships between the top level content structures and ways in which the children subordinate, link, and elaborate their ideas at the lower levels of the content hierarchy. Each student paper was divided into T-units and analyzed using the operational definitions presented in Figure 1.

What They Wrote About. Pets and animals, and hobbies dominated the children's writing, with ten of the 16 papers falling evenly into these two categories. Another three children wrote about sports (soccer and swimming), and the last three were topically scattered (about knights, math homework, and people).

Overall Characteristics. Before looking at specific ways in which the pieces were organized, let us get a more global view of the writing. Together, the children's expository papers had a mean length of 73 words (compared to 109 for their stories), 7.3 sentences (11.3 for stories), 8.1 T-units (12.8 for stories), and 9.0 words per T-unit (8.43 for stories). Although the reports were shorter than the stories, they were syntactically a bit more complex, with more words per T-unit suggesting more ideational "packing."

The children tended to begin their reports with such weak topic starters as "Horses are animals" or "I like cars" (29 percent), formulaic ones such as "This report is about soccer" (50 percent), or such more sophisticated structural beginnings as "It seems easy to sword fight, but it really isn't" (21 percent). They ended their reports with simply the last in a string of facts, e.g., "My Dad does too." or "The hammer inside hits another hammer and hits the string and makes a sound." (43 percent, or by announcing that they were done: "That's how you do it." "The end." (50 percent).

The children's expository writings were organizationally constrained by the titles they had chosen. Titles tended to structure the top level of the reports by providing simple statements (lexical predicates in the structural analysis) that were then elaborated upon from a variety of often unrelated perspectives. Findings in the original study indicated that description was the primary device eight-, 11-, and 14-year-olds used to elaborate both stories and reports. However, elaborations were used more by the younger children as a commentary rather than a summation — often serving to get the writing started or to bring it to a close before the children had learned more sophisticated organizing structures.

The Range of Structures Eight-Year-Olds Use. The eight-

Figure 1
ANALYSIS OF STRUCTURE

TOPMOST LEVEL

Rhetorical predicates function as the overall organizing frames below which all other levels of the content hierarchy were subsumed. Lexical predicates which act as rhetorical predicates representing the gist (of a story) or the thesis (of a report) are used only when none of the other top level rhetorical predicates listed below can be perceived as dominating the rhetorical structure of the text.

Rhetorical Predicates

a. *Causal* — antecedent and consequent specified at equal levels in the content hierarchy — these are not attributed to the text without explicit causal markers, e.g., so, because.

b. *Response* — problem/solution; remark/reply; question/answer specified at equal levels in the hierarchy.

c. *Alternative* — two or more equally weighted views or options compared or contrasted.

d. *Sequence* — steps, episodes, or events ordered by time at equal levels in the hierarchy; other rhetorical predicates could serve as events.

LOWER LEVELS

Embedded under the top level predicates are any number of further structural levels. Nodes in these levels can be composed of any of the rhetorical predicates listed above, as well as five further types that occur only at lower levels.

e. *description* — a variety of types of subordinate elaborations, including manner, attribution, specific, equivalent, setting, identification, epilogue.

f. *evaluation* — opinion or commentary expressed by the writer about other ideas or events expressed elsewhere in the text.

g. *evidence* — supporting argument.

h. *explanation* — causal antecedents subordinate in staging to the main idea or event being explained (required explicit causal marker).

i. *adversative* — comparison between alternatives, where one is less favored and subordinate — the dominant alternative is related to a higher node.

TERMINAL LEVEL

Each branch terminates with a lexical predicate representing the content of the sentences (T-units) comprising the text.

Deepest level — lowest level in the content hierarchy.
Broadest level — level having the largest number of individual content nodes.
Deeply linked items — rhetorical predicates or content items branching downward to more than one rhetorical predicate or content item.
Shallowly linked items — rhetorical predicates or content items branching to only one rhetorical predicate or to a single content item.

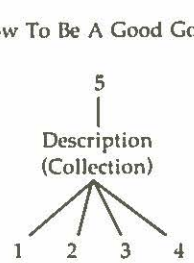
year-olds' expository writing falls into four categories, each representing a different approach to the problem of how to structure the whole: (1) unelaborated description/sequence; (2) simple thesis/support; (3) academic recitation; and (4) more complex structures. At age eight, simple thesis/support was by far the most common type of structure, but each of the other structures was represented as well. Let us examine each of these separately.

Description/Sequence. Writing at the simplest organizational level was brief and unelaborated, relying either upon list-type descriptions or temporal "and then's" to move the piece along. Papers at this level have at most two levels of structure, and generally have information clustered around only one node. Marvin's report about soccer is a good example of the use of a list of descriptive elaborations to structure a report:

How To Be A Good Goaly

1) How to be a good goaly is to move quickly and keep an eye on the ball 2) and you have to be a good kicker. 3) Also you have to be smart because to tell the kids to guard who 4) and hold on to the ball tight because kids can kick it out of your hand 5) and that's how to be a good goaly.

This is what it looks like in a Meyer-type tree diagram:



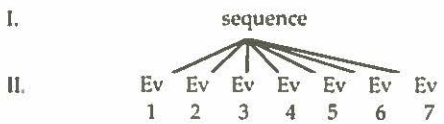
In this piece, it is clear that Marvin is familiar with the function of expository text, to tell what he knows about soccer. He even adds two explanations in his "because" clauses. However, there is a lot he has left out. Marvin hasn't thought to mention that the sport is soccer, and he provides no introduction to what a goaly is or the role the goaly plays as part of the game.

Mike bases his report about puppets on the other simple approach to structure, using an unelaborated simple sequence of steps:

how to make a puppet

1) first you have to have an idea what puppet you want to make 2) then you take clay and make the head 3) then you cover it with paper strips Dipped in bleach and Let them dry 4) then you cut the puppet open and take the clay out 5) then over the cut line you put more paper strips in bleach so it's whole again and let them dry 6) then you paint it 7) and its Done!

The tree diagram looks like this:



Mike too knows about the uses of exposition. He knows informational writing not only tells "what" but can also tell "how." He clearly knows a lot about making puppets, and his readers know it — provided they already know about how to make puppets. As a set of instructions for readers who don't already know how to make puppets, however, Mike's piece is rather bare. It lacks the elaborative information necessary to explain the procedure to someone who isn't already familiar with it.

Although children such as Marvin and Mike know what expository language is for, and have stable structures for presenting their information, their writing lacks the complexity necessary to get their ideas across to others. It may be that the structures they have used are similar to those they use in speech, where they share a context with their audience, and the audience can ask questions when elaboration is needed. Whatever the source, it is clear that for school-type exposition, this structure is only a beginning. It provides a place to start as the child learns to elaborate more fully in the context of exposition.

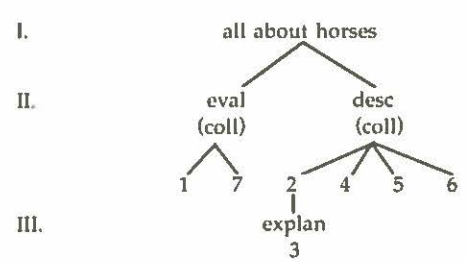
Simple Thesis/Support. At the next level of structural complexity, the papers present a thesis, elaborate upon it, but do not weigh, analyze, or argue for the ideas presented. This leads to writing in which information is generally clustered around two or more nodes, with up to three levels in the structural hierarchy.

In the examples that follow, Jane's paper is a less complex version of the simple thesis/support form while Molly's is a more complex one. Jane wrote this:

all about horses

1) I love horses. 2) They love the rain. 3) I do not now why. 4) They like to eat correts, apples, grass, hay. 5) They like to drink water. 6) When they are born there mother take care of them. 7) I love to ride a houres. The end.

Her tree diagram looks like this:

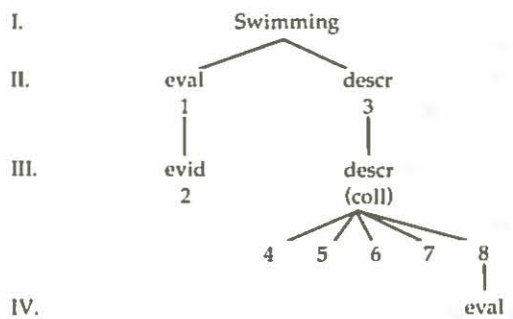


Molly's piece is about swimming:

Swimming

1) Swimming is a fun sport. 2) I like it alot. 3) I am on a swim Team. 4) I go to workout every day for hour in a half. 5) I have lots of ribbons and medls, And 1 trophy. 6) Are Coaches names are Dick and Tim Oliver. 7) Lots of my friends are in it also. 8) This weekend we had a swim meet, at our pool. 9) It was very fun.

The tree diagram looks like this:

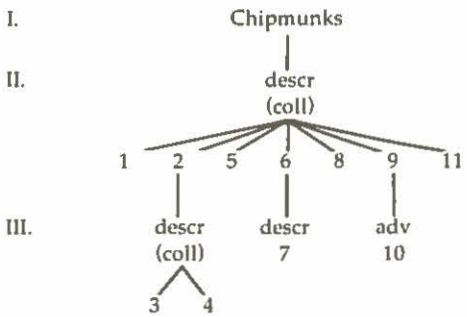


Both pieces have evaluative beginnings and endings (I love horses — I love to ride horses; Swimming is a fun sport — It was very fun). Jane also marks hers with *The end*. Jane uses her evaluative opening to move her piece beyond a simple description such as Marvin's. Her explanation (or non-explanation) also serves to add subordinating complexity to her piece. Although still simple, the structural features become more defined. In contrast, Molly's piece is even more elaborated through the use of subordinated information. Characteristic of writing at this level, the elaborating structures go beyond description and sequence to include use of evidence, evaluation, and explanation.

Academic Recitation. The third type of structure that the eight-year-olds used for their expository writing reflects a somewhat more complex recitation of what they know or have learned about a topic, often focusing on science or social studies material. Writing in this category is elaborated more fully than in the simple thesis support structure, but tenor of the pieces often imply an audience of teacher-as-evaluator.[23] There are few issues presented, and explanations and opinions tend to be absent from pieces of this type. Nancy's and Rolf's papers are typical examples:

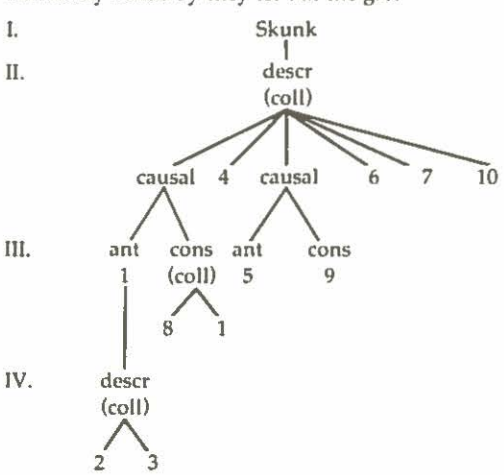
Chipmunks by Nancy

1) A chipmunk lives in farms and meadows, gardens. 2) They eat all kinds of nuts, 3) you can feed them from your hand 4) they have pouches in there mouths that they carry food in. 5) Chipmunks make there homes in burrows. 6) In the winter they sleep 7) and sometimes they wake up to eat something. 8) In the spring they look for a mate. A chipmunks baby has no fur when it is born. 9) But you can see five black stripes and for white ones 10) a chipmunk is considered full grown when it is two months old.



Skunks by Rolf

1) Skunks have a kind of gas under their tails. 2) A skunk uses that to protect itself by letting the gas go out. 3) That gas has a smell like a gas grage. 4) This animal can be found in bushes. 5) Skunks are black 6) they have wite stripe on the back. 7) You can see them in the zoo. 8) They are hard to catch because of the gas they let out. 9) They have camoflouge at night because they are dark black and little. 10) They can scratch and climb good. 11) They are not good for pets because whenever somebody walks by they let out the gas.



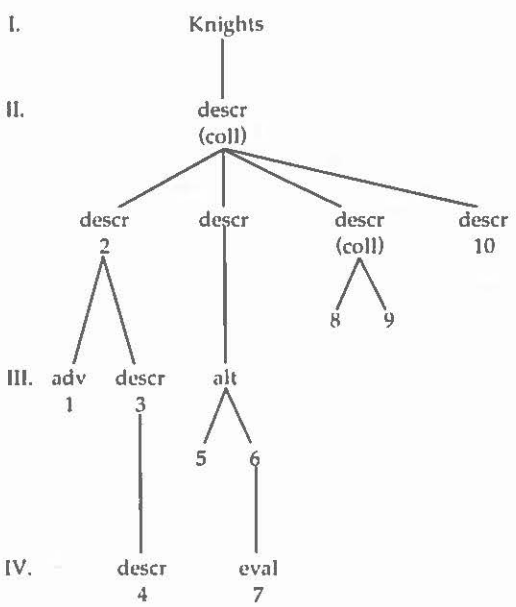
Nancy's and Rolf's papers are the first we have encountered that "look" like school reports. They have an academic sound to them: they are factual, terse, and are organized around particular features generally taught in school (e.g., where the animals live, what they look like, what they eat, how they live). Because these children know what to include in academic reports, their papers are lengthy, and contain frequent clusters of information and considerable structural embedding. However, these papers suffer from the teacher-as-examiner effect de-

scribed above; in that the critical information is listed in a tell-all-you-know encyclopedic fashion with opinions, asides, analyses, or comparisons missing.

More Complex Structures. Even more complex structures appeared in some eight-year-olds' writing, as seen in the following papers by Henry and Leslie:

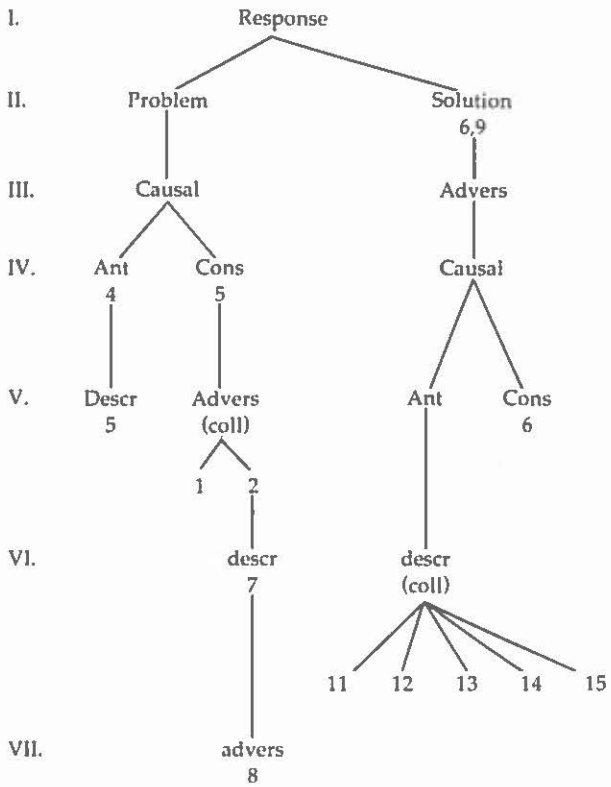
Knights by Henry

1) It seems easy to sword fight 2) but it really isn't, 3) knights have to be very strong to battle with heavy weapons. 4) Battle axes are the heaviest of the weapons. 5) Some knights lived in castles 6) others lived in cabins. 7) Well, Lets see you come up with something! 8) Anyway knights are for slaying dragons so I'd split if I were a dragon! 9) They are also known for rescuing princesses. 10) Knights are hot in their armor so the best time to do battle is when it's raining. THE END!



My Report on Math by Leslie

1) Addition and subtraction is easy for me now. 2) so is multiplication. 3) But long division I kind of forget. 4) I guess its because I haven't done any dividing this year. 5) I think I better start doing some dividing at home. 6) I can almost solve every problem from 1x1 to 10x10. 7) But from 11x2, it's kind of hard. 8) all I did to do is practis. 9) But I have lots of things to do. 10) To name one it's that I have to swim every day. 11) I have to do my violin homework, school homework, and extra homework I do at home. 12) and I have to do soemthings from the cub-scout book to earn wolf badge. 13) and right now I have to finish my pinewood derby car and 14) people said that soon Im going to have G.A.T.E. homework. 15) So, I'm not sure I'll have time.



Both papers are qualitatively more complex than those examined previously. There are more information clusters, and they are elaborated with subordinated information using a wide variety of rhetorical predicates and lower level predications. Both reports begin and end with strong, structurally relevant introductions and closings (although Henry adds *The End* for emphasis), and they provide explanations and elaborations through use of causal and response structures, as well as adversatives, evaluations and descriptions. Also, both pieces are interesting to read. In addition to providing information, the writers also attempted to inject some humor into their writing, and have managed to control the added structural complexity of this task. Although the pieces themselves do not "sound" as academic as the simple thesis/support pieces, they provide evidence of the children's ability to handle highly complex expository structures, when those structures are mustered in service of the children's own purposes.

Conclusion

I began by asserting my belief that eight-year-olds know a good deal about expository writing, and that they can put the structures they know to good use. The samples

above provide ample evidence for this belief. This work also suggests the range of structural control we can expect to find in eight-year-olds' expository writing, when the topic children select is their own.[24-27] The structures that appear at the top level for some children appear as lower level elaborating devices for others, and those rhetorical structures that appear as lower-level elaborations for some children dominate the top level for others. None of the structures used in the simpler papers are inappropriate for the more structurally complex pieces. The children who use them have learned them well. They work for certain purposes, and can continue to be useful in different ways, to serve other communicative purposes.

If we take a functional view of writing, we might expect that each of the children in this study has a range of expository structures that is used for a range of information-giving purposes. An understanding of what eight-year-olds *do* do, and what some eight-year-olds *can* do, provides important information for instructional model building. The papers in each of the different categories I have presented represent somewhat different purposes for expository writing. Most schools, by the third grade, begin to teach students to write academic style prose. Instead of considering it a new form, it might be useful for educators to consider ways in which it is a new application (use) as well as an extension of the structures the students already use. Clearly, the simple thesis/support form is one that most eight-year-olds can do. As the children's purposes for writing changes, so too can the teachers' assistance change — based on the youngsters' need to elaborate, subordinate, or pose more complex ideas.

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Footnotes

[1]Langer, J.A. *The Relationship Between Reading and Writing Strategies: A Developmental View*, NIE Grant Number NIE-G-82-0025, 1982.

[2]Langer, J.A. *Reading and Writing in School-age Children: A Developmental View*, Final Report, National Institute of Education, 1984a.

[3]Langer, J.A. "The effects of available information on responses to school writing tasks" in *Research in the Teaching of English, 18 (1)*, 1984b, 27-44.

[4]Langer, J.A. "Examining background knowledge and text comprehension" in *Reading Research Quarterly, 20 (4)*, 1984c, 468-481.

[5]Langer, J.A. "Children's sense of genre: a study of performance on parallel reading and writing tasks" in *Written Communication, 2 (2)*, 1985, 157-187.

[6]Langer, J.A. *Children Reading and Writing: Structures and Strategies*, Norwood, New Jersey : ABLEX, 1986.

[7]Langer, J.A. "Reading, writing, and understanding: an analysis of the construction of meaning" in *Written Communication, 3 (2)*, 1986.

[8]Brown, R. and U. Bellugi. "Three processes in the acquisition of syntax" in *Harvard Education Review, 34*, 1964, 133-151.

[9]Bruner, J.S., J.J. Goodnow and B.A. Austin. *A Study of Thinking*, New York : John Wiley & Sons, 1956.

[10]Weir, R. *Language in the Crib*, The Hague : Mouton, 1962.

[11]Langer, *op. cit.*, see Footnote 2.

[12]Langer, *op. cit.*, see Footnote 5.

[13]Langer, *op. cit.*, see Footnote 6.

[14]Vygotsky, L.S. *Thought and Language*, Cambridge, Massachusetts : MIT Press, 1962.

[15]Langer, *op. cit.*, see Footnote 5.

[16]Langer, *op. cit.*, see Footnote 6.

[17]Applebee, A.N. *Writing in the Secondary School*, Research Monograph 21, Urbana, Illinois : National Council of Teachers of English, 1981.

[18]Langer, *op. cit.*, see Footnote 2.

[19]Langer, *op. cit.*, see Footnote 3.

[20]Langer, *op. cit.*, see Footnote 4.

[21]Langer, *op. cit.*, see Footnote 5.

[22]Langer, *op. cit.*, see Footnote 6.

[23]Applebee, *op. cit.*, see Footnote 17.

[24]Langer, *op. cit.*, see Footnote 3.

[25]Langer, *op. cit.*, see Footnote 4.

[26]Langer, *op. cit.*, see Footnote 5.

[27]Langer, *op. cit.*, see Footnote 6.