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Teaching Literacy

Background

Although pre-service teacher training relies too much on unwise conventional wisdom and commercial materials, and seldom affords experience in such things as small-group process, writing, or drama, an encouraging trend among both districts and colleges partly compensates for this through in-service institutes, workshops, and conferences that go beyond the limitations of regular training. These are usually regional, and some fine ones I was invited to participate in exemplified a very valuable collaboration between colleges and school districts. The address coming up here was elicited from me by a very high-caliber reading institute called *The Reading Experience: Social Dimensions of Language and Reading Development,* given in the summer of 1976 by the School of Education at Fordham University's Lincoln Center campus in New York City. Although I have expounded to many groups my approach to reading, I felt this effort was especially clear, coherent, and complete, partly, I believe, because the institute had created a good situation for me by emphasizing the *contexts* of reading, the social and psychological dimensions that make it an intricate process and are too often stripped off in the hurly-burly of school life.

To say that I never had any formal preparation in the teaching of reading is simply to say that I've never taken training in *any* area of teaching. Such innocence amounts to a real advantage in the field of reading, I realized, because it's a battlefield, and the smoke of war obscures it so badly that you have to step outside to perceive anything. I never had to strive to be broadminded and overcome the partisanship of being professionally brought up a certain way. I came upon the phonics approach, look-say, and "reading for meaning" as an astonished outsider who couldn't believe that the nurses were all fighting among themselves while the baby was crying untended. I never had to learn to integrate reading with the other language arts, because for me it has never been a separate subject. At first, I did take too seriously the research in comparing reading methods that Jeanne Chall reported in *Learning to Read: The Great Debate,* before I realized such research omitted or slighted some means to literacy and reflected what schools do and publishers put out, not what schools might do or ought to do. But I always assumed that literacy learning, as I prefer to call it to include beginning writing as well, occurs as an organic part of total language experience.

If I have been able to contribute to reading—or any other language art, for that matter—it has been more from working with teachers than with children. There's a good reason for this. Most problems children have learning literacy in school are artificial and unnecessary, but it's very difficult for teachers, caught in a frenetic world they never made, to see how much these problems are school- or teacher-induced. My approach is to try to restore learning conditions in school to something like what they might be naturally, i.e., when no professional is trying to teach at a special learning site. I'm not worried about children learning to read and write when only that is involved. If I can clear up the teachers' problems, I know the children will have trouble only if they're clearly damaged in some way. Most of my ideas about literacy come from listening to teachers talk about their problems with it and from matching what I know of children's general learning processes against the materials and methods schools offer. I've also learned a lot from reading with my own children when they were small and from working on literacy materials for the *Interaction* program, which contained no textbooks, only reading selections. When you have to commit yourself to definite school materials but repudiate basal readers and programmed "skill-builders," you start really thinking about the basic nature of literacy acquisition. Mainly, I felt I had to shun convention and reconceive the two R's, to create a perspective on reading within which problems looked different and would become soluble. I've met countless reading specialists and teachers in reading labs who, despite working for years with kids, were so blinded by conventions not founded on actual learning processes that they really could not see the issues well enough to troubleshoot for themselves. Sometimes I feel embarrassed telling grown-ups things that seem obvious or commonsensical to me, but I think that schooling has operated for so long on undetected irrelevance that teachers can be at least partly excused for not being able to have the needed insights. So for me, an institute like the one

LITERACY
GOALS

I. To sound out with normal intonation any text one could understand if heard.

II. To write down with correct spelling and punctuation anything one could say.

at Fordham offers a fine chance to help teachers raise the quality of their thinking, so that even if they reject some of my practical suggestions, they'll be better able to see the way to go.

The text here is an edited transcription, in which I tried to retain as much of the flavor of the original as possible, consistent with reading ease. Illustrations recapitulate the transparencies referred to during the talk. I used these visuals also as cues to supplement some sparse notes.

In the Appendix I have included an open proposal to the profession, "People Reading," to which I invite responses toward the goal of eliminating illiteracy as a serious issue in U.S. education. Dr. Gabriel Della-Piana, Director of the University of Utah's Bureau of Educational Research, has already begun, for 1981, a USOE-funded project based on it, "Parent Participation." Such an idea could and should be replicated on a national scale, I believe, in much the same manner that the National Writing Project has grown out of the Bay Area Writing Project.

I find it's very important to have a certain theoretical underpinning for teaching practices in literacy because I think there's tremendous confusion in the field and has been for some time due partly to an ambiguity in the term "reading." It really means two things at once in speaking of school learning. The same thing is true of writing. I could put it this way. A friend of mine in the Boston area, Joel Weinberg, a reading specialist at Simmons College, said, "I can read Hebrew aloud faultlessly, but I don't understand a word of it. Friends of mine who do can understand perfectly well without looking at the text what I am saying." There are two very different meanings of reading right there. This duality is commonly recognized in the field of reading by referring to decoding versus comprehension.

The decoding is the part that Joel was doing, that is, translating the words right off the page into vocal sounds. That's often referred to also as word attack. The other is the comprehension aspect; his friends would be listening and not looking at the text but would understand it. Now, the same thing occurs with people reading to the blind, for example, or reading aloud to a sick person, where you split these dual functions of reading off from each other. These examples dramatize what is always true of any reader. In solo silent reading, the same thing is true. The two totally different processes are going on at the same time. Now, as teachers, we have the problem of confusing these. Though fused in the mind of the reader, they should not be confused in the minds—as I think they traditionally are—of people in the teaching profession. So, I'd like to disengage a bit these two different activities. It's true that, functionally,

when one reads, one does everything at once and that's the way it should be, but I think as teachers we have to separate these functions in order to understand them more clearly.

Decoding is a term borrowed from communication engineers, who speak generally of coding, which subdivides into decoding as the receptive, and encoding as the writing, end of literacy. You don't hear much about encoding in school because we're more interested in passive, receptive activity, but literacy should be symmetrical. At any rate, I start with the engineer's term "coding" and recognize three levels of coding—putting raw experience into thought, then thought into speech, and then speech into print (see Fig. 1). I think it's important to distinguish these three levels that, in a certain sense, lead in an order; that is, each presupposes the prerequisite of the one before. Before speech can be encoded into print or decoded from print, there must be the prior level of the thought-speech relationship, thought into speech, and, before that, the prerequisite of experience into thought. I'm going to translate those three levels into somewhat different terms here to develop the idea.

The experience-into-thought level is the nonverbal level of *conceptualization,* where experience is first coded into concepts. We speak of concept formation. The second level is the level of *verbalization.* To verbalize is to put thought into speech. That's the oral level. The last—and we note—the most dependent, the most derived level is speech-into-print, the written level of *literacy* (see Fig. 2). Now, we are speaking of two-way coding, encoding and decoding. Nonverbal, oral, written—literacy being the two R's, reading and writing.

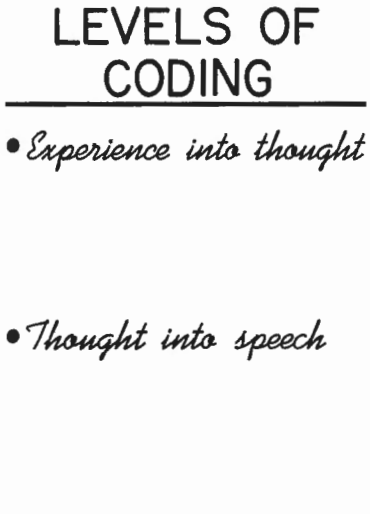

Figure 1

Figure 2

Let me translate these a little further. On the left of Fig. 3 are the three levels I just mentioned. I want to translate them over to the right into skills. So, reading down the left is the conceptualization level, which, when translated into school skills, let's say, comes out as the thinking skills—again, concept formation. The level of verbalization comes out as the speaking skills or oral language skills, as schools will call them, and then I have a very heavy bar down here to distinguish those two levels from the third, the literacy level or the two R's. That translates in school terms into the skills of word attack—that is to say, decoding and spelling, depending on whether one is talking about the reading direction or the writing direction.

Now, those traditionally are called the basic skills, but what justifies calling the most derived, the most dependent level, *basic* skills? Two other levels have to exist before that level can exist. We hear talk constantly about the two R's, word attack and spelling, as the basic skills. Well, from my point of view, there is kind of a misnomer involved. Those two skills are basic to literacy only. They are basic to that level, but, in the broader perspective of the total development of the learner, they are derived rather than basic. The real basic skills are thinking and speaking, right? Those are the really basic ones. So, I use "basic skills" always in quotation marks. You're not going to have basic skills in the sense of two R's until the true basic skills of thinking and speaking are thoroughly developed.

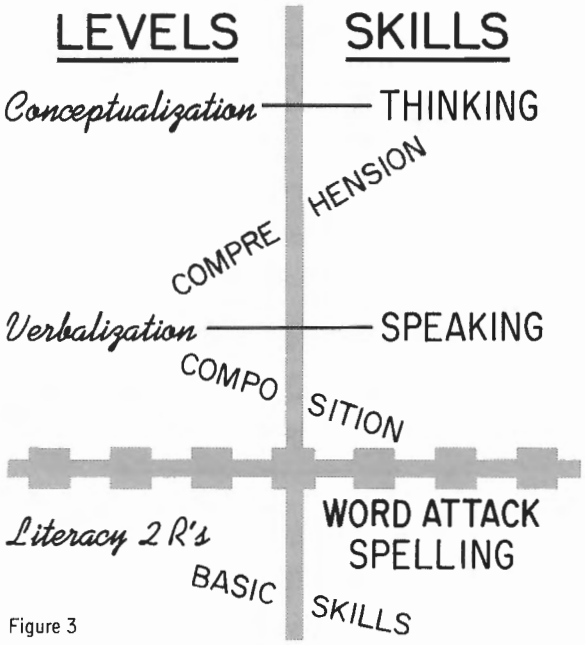

Figure 3

So I have written across Fig. 3 *comprehension* and *composition* to indicate that those first two levels cover a tremendous amount that is truly basic.

I want to continue translating those levels into other terms. Let's take just the literacy level for a while because teaching the basic skills, so-called, the two R's, tends to be such a tremendous problem in this country. I don't think it should be, but it is, and I hope I can indicate some of the reasons why it is when it should not be. So let me translate those levels now for purposes of getting just literacy for the moment into reading methods as they are practiced or could be practiced in school. In other words, we are getting into professional terms here. I say that any reading method is one or some combination of the four main reading methods listed in Fig. 4. I don't think this is my own invention, but it's my own way of codifying, if you like, what is done or talked about professionally in the field of reading, and there's a purpose to the order here.

Let me preface this first by saying that at the literacy level the learning task is essentially a paired association, as they say in psychology; that is, the learner is matching off vocal sounds he already knows with something new, which is the sights of the language—right?—the spelling. So, what we're into with the teaching of literacy is an audio-visual shift, a shift from an oral-aural medium to a visual medium, and that media shift is essentially what is called the two R's, or literacy. Anything that allows the learner to see and hear English at the same time, in some synchronized fashion, will teach reading in the basic sense of literacy. And anything

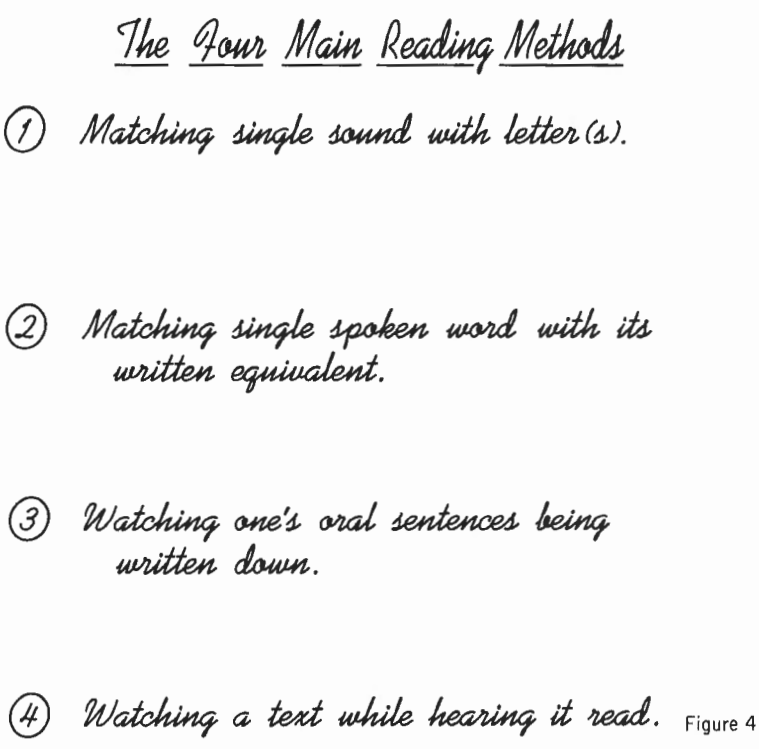

Figure 4

that does not will not. I don't think this is true because I say so; I think you should test it for yourself, but, if literacy is basically a media shift, then you have to have both media represented. The student is going to have to hear the sounds of the language, which he knows already, at the same time he sees how those sounds are written or spelled and, if he has enough of that, he will learn to read. So the methods, in a sense, necessarily, logically, must break down into something like what follows here.

One way of providing this audio-visual matching is matching single sounds with letters; that is, match each of the forty-odd phonemes of English, the basic sounds, with its spellings, and most have more than one spelling. For example, as the learner is presented with a letter or spelling, he is told how to pronounce it, or he is given the sound and shown how it is spelled. But we are below the word level. This is like subatomic physics here, particles. The second method focuses on a larger unit. This method matches a single spoken word with its written equivalent. Here we deal with single whole words rather than with word particles. The third focuses on a larger language unit and consists of the learner watching his oral sentences being written down, so that he can see how what he says looks like when it's spelled. The last method also involves whole sentences and the continuity of whole sentences. It consists of watching

a text while hearing it read. What I'm saying is that any way of successfully teaching reading, in the sense of literacy, is bound to be one or more of these methods. This is my way of breaking it down. You'll have to test the truth of it yourself.

To translate these four methods into more or less traditional professional school terms, the first one would be "phonics," the level of word particles. (See Fig. 5, which moves from small unit to large unit.) Matching a single spoken word with its written equivalent has gone by the name of "look-say" or "sight word." The classic example would be flash cards. A card having one word written on it is flashed and then someone says the word so that the learner can see and hear the word at the same time. That is a larger learning unit, the whole word.

The third goes under the name of "language experience approach," done generally in primary school; no reason not to do it at later ages. It consists of the learner dictating, in effect, a story of some sort to someone who is literate, who writes down what he says—again, so that the learner can see his own speech written down and thus make the paired associ-

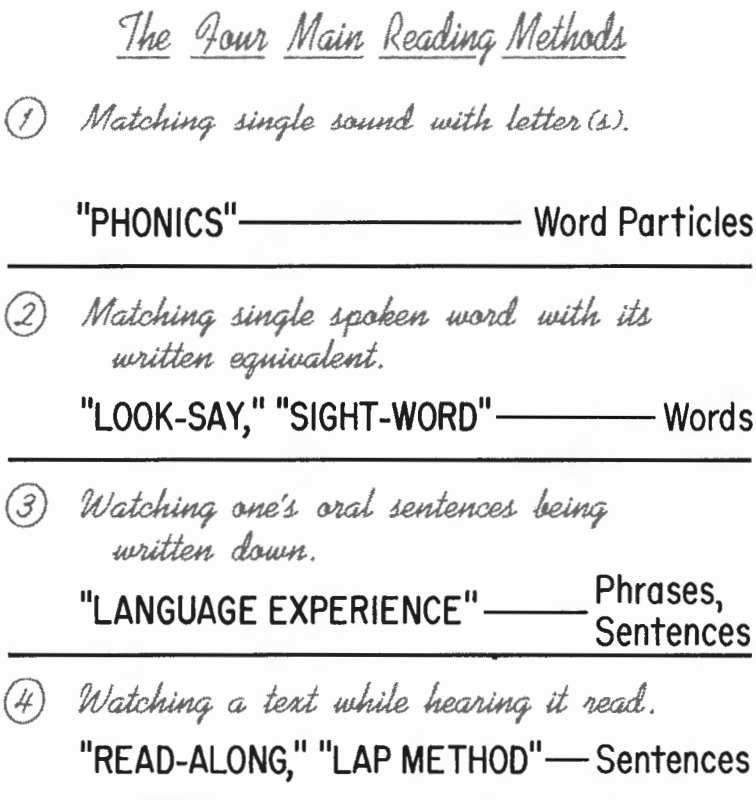

Figure 5

ation. The last one, interestingly enough, has not been dignified as a reading method, and thereby hangs a long tale and tremendous difficulties. Most reading research will not include it, and therefore I think most reading research having to do with methodology is perhaps for that reason alone not very valid. Watching a text while hearing it read aloud, to the extent it is now beginning to be recognized as a reading method in the field, is often called "read-along." I prefer my own term, the "lap method." I deliberately make it folksy to indicate that it has been done at home and not in school. The prototype of that is a bedtime situation in which the child is sitting on the parent's lap, looking at and perhaps holding the book himself and getting the audio in his ear from the parent. The child is seeing the text while hearing it read aloud. For a number of interesting reasons, schools have virtually ignored this, have never considered this a reading method. Anyway, these are the four.

Today there's a tendency to be somewhat eclectic and mix approaches. I doubt if anyone is so diehard as to say she can do it with phonics alone or look-say alone and absolutely nothing else. In any case, if there's anything at all going on realistically in the classroom, the last two methods are bound to be represented to some extent. A person is going to be hearing something read aloud while he's watching the text.

O.K., these are in a progression going, as I said, from the smallest unit of language to the largest. The issue here is what size shall the learning unit be? What language unit shall be the learning unit? Phonics focuses on the particles that make up words. Look-say, or sight word, focuses on single, isolated, whole words, and three and four focus on sentences and sentence continuity.

The other issue is who or what supplies the audio. Given that literacy is a media shift and both media have to be present simultaneously in a synchronized fashion, where does the audio come from? Does it come from the teacher? If so, the teacher is tied up with the whole class at once, and there is no opportunity to individualize. Shall the voice be recorded? Shall the voice be the learner's own voice, as it is in number three, the language experience approach, where individual learners or a small group of kids, let's say, who have been on a trip or following a project, dictate and the teacher writes this down? The audio is then supplied by the learner himself. Students might supply the audio for each other in group exchanges. These are the main issues I think we should think about—who supplies the audio and how large shall the learning unit be.

Now, I think that covered in this scale are the kinds of controversies that have ripped apart the field of reading with arguing about one or another of these things, and I think the fights are unnecessary. What we should do is think of these as an array or progression and understand the differences among them and try to exploit those differences. Properly individualized programs, for example, would help each student find which

of these or which combinations he needs. We know, for example, that many, many students have learned to read and write extremely well without any phonics at all. Other students, we know from experience, seem to have difficulty without some explicit instruction by the first method, but it's hard to judge because there has not been enough emphasis on three and four in schools, for the most part, to know what the real power and impact of that would be, whether those students who seemed to have needed phonics, because they never quite generalized the phonetic relationships and therefore were memorizing words and could not attack new words, would have been able to attack new words had they had some of three and four. Do you see what I mean? The only way you're really going to know is to have all of these in play and find out.

I think I would say generally that we should emphasize the larger units more, put most of our force, and our faith, behind them on the principle, which I think is sound, that the wholes teach the parts, not the other way around, because the whole is larger and contains the parts, and in general the larger the context, the safer you are. Just for one example, there's no way to teach the reading and writing of punctuation if you don't have whole sentences, so that rules out methods one and two. Think about that for a moment. Without whole sentences, there's no way to deal with punctuation.

Much more important, I believe, is that the larger the context, the larger the unit you're working with, the more opportunity there is for meaning and, therefore, for motivation. How much motivation or meaning is there in the syllable "ap", A–P, or "tee", or just a single consonant, the K sound, for example? No meaning and, therefore, no motivation. When you get to the whole-word level, O.K., there is *some* more meaning. You know, single words have meaning, like the word "poison" on a medicine bottle and environmental writing, signs, and captions, and so on, that deal with single words. You may know the Sylvia Ashton-Warner approach, which she described in the book *Teacher.* She tells of working with Maori children in New Zealand, of having them ask for words that were of great emotional interest to them and then writing these down on a piece of tagboard so they would build up a little word-card collection of words they were motivated to learn. O.K., that's a very creative way to work with what is not a very powerful level, that is, the isolated-word level.

Then you move on up to three and four, where kids are dictating high-interest material because it's coming from them, whole sentences, a whole story, and then listening to a text while watching it, number four; you're in again to whole pieces of real writing, real reading. Therefore, you have more meaning and motivation. Generally, as you go from one to four, you increase the amount of meaning and you decrease the problem of how to motivate. So, strictly as a strategy, I would say the safest

thing to do, the most powerful approach, is to work as much as possible with the larger units and bring in the smaller units only to the extent that you feel they are warranted by practical experience. That is, phonics is only a means. Working with whole words and whole sentences . . . those are, to some extent, ends, goals—to be able to read those—but it's not a learning goal, I think, to be able to read "ap" or "tee" or anything like that. It's strictly a means. Logically, you want to focus on the goals, and when something is a means only, like phonics, then use it as little as possible and only when it justifies itself.

I'd like to use now a passage I picked from a comic strip as an example of what I think actually happens in the reading process, let's say, of a learner who knows, who has generalized for himself or had taught explicitly to him, some phonics, some of the phonetic regularities of English, but is still a very shaky or weak reader or perhaps, left to his own motivation, a nonreader. Here is what I think happens and why it is that the larger context can teach the particles, the wholes teach the parts. Figure 6 is from the comic strip, *Miss Peach.* I don't know, I guess I picked that unconsciously, being a teacher; it often focuses on the classroom. A boy there had set up a little booth as a psychiatrist, and he hung out his headshrinker's shingle and was giving advice on one thing or another, counseling, and some girl had come back to complain to him. I guess he was acting as data mates, too. She said, "That boy you sent me is a real dud, and you told me our relationship would rapidly grow and blossom into something beautiful." I picked this really very much at random, but it seemed to me the sort of reading matter that would appeal to a kid in upper elementary or junior high who is having trouble and that might provide us with a very good sample to work with. Incidentally, his response to her complaint was, "Did you water it?" It threw a little of the responsibility back to her.

I have underlined those spellings that would pose problems for many shaky or weak readers—the OY ending, the *oi* sound—that diphthong—when it has a Y instead of an I at the end of the word; or notice the OU in *you, our,* and *would.* Again, I just picked this at random, but it's typical of English that you can have three different sounds for the same spelling

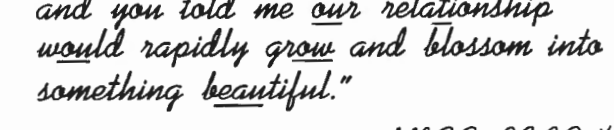

Figure 6

in a passage as short as that. The *sh* sound in *relationship,* spelled with TI rather than SH or CH. The word *beautiful,* very irregular because of its French derivation, *beau;* and *grow,* the long *o* sound, is one of many spellings with the long *o* sound—O, OE, OUGH, OW, right? The long-vowel spellings are particularly difficult. *Real*—again, the long *e* is spelled many, many ways—E, EE, EA, EI, et cetera. O.K., what I think happens is this: let's say we have a . . . O.K., now, a learner, a blooming reader who is very weak, but he knows some of the sound-spelling relationships. What happens is that he does use context to figure out those phonic relationships he does not know yet, that is, has not been taught or has not generalized for himself. Now, if these were isolated, he would not be able to do it. Do you see what I mean? Even the isolated word perhaps he would not get, not to mention the OU all by itself—simply no context. You don't know how to sound OU by itself or even OUGH without the rest of the word.

What the context supplies are cues or clues of essentially three sorts. Any native speakers of English, by the time they enter school, really know the basic grammar, the syntax; that is, they know the proper order of words. Of course, they have no idea what the names are, the nomenclature about nouns and adverbial clauses and determiners and modifiers. But never mind. They know how to use these. They know those slots in the sentence. No child says, "Hat blue my." He says, "My blue hat." Whether he knows a possessive adjective from a doorknob doesn't make any difference. He knows the syntax of those words, and he decodes sentences he has never heard before, and he invents or formulates sentences he has never heard before. So, the psycholinguists are quite right in praising the tremendous learning that has already gone on before children get to school in generalizing for themselves the syntactic rules of the language. They know their grammar. When we speak of teaching grammar in school, again it is kind of a misnomer. We mean we are now going to ticket, to label, all the things that they already know in a functional, operational way. O.K., drawing on that knowledge, which goes with the *oral* language skills, a reader, an incipient or weak reader, can figure out what certain words must be; that is, there are only certain things that can go after "a" in "is a real dud." After the article, you know there's going to have to be a noun coming somewhere in there, or let's say, after "real," after the modifier, there's got to be a noun. Now, he doesn't formulate that for himself, but his experience of the language tells him that. Certain slots in the sentence can be filled only with certain types of words, so that narrows down which words come up there. If winter comes, can spring be far behind? If you get a determiner, can the noun be far behind? Or predicates: "Our relationship would rapidly grow." Now, any speaker of the language who hits the word "would" knows, in most situations, that the other shoe is going to fall soon, the other part of the predicate. They

don't know anything about auxiliaries in an intellectual way, but they know that there has to be the other part of the predicate coming along, so they are waiting for it. Again, that reduces the possibilities for the "grow" slot. See what I mean? The use of syntactic cues—and any proficient reader, of course, is doing this very successfully. This all goes on at computer speed, in the old biocomputer here, as John Lilly calls it. That's one set of cues.

Another is the sense, the meaning, the ongoing meaning. Now, if there isn't any meaning, of course, that rules these cues out, just as, if you don't have whole sentences, syntactic cues are ruled out. Terrible losses, because even the proficient reader requires them, and the less proficient a reader is, the more he is going to rely on those clues. All right, following the meaning, that is, the drift, of what is being said here, you can guess, you can predict what certain words will be. For example, "beautiful," isolated by itself, might be a difficult word to figure out, but, given the context, if the kid has been following the sentence so far, he can make a good guess about "beautiful." He is apt to know B; the B sound-spelling is one of the earlier ones and easier ones to learn, and the T and perhaps the L. In other words, the consonants are generally fairly easy and, knowing those, knowing that that has to be an adjective in that slot, knowing what the sense of the whole passage is, "beautiful" . . . he can figure it out. This is going on all the time in any authentic instance of someone reading or trying to read. Of course, if they do not care, none of this will work. The will must be behind the old biocomputer or you get nothing, and this is why the motivation is absolutely essential. Without it you don't even have a basis on which to think about the problem.

The third source of cues is, of course, the actual spellings, the letter knowledge that the student does have so far, whether from explicit phonics or from his own generalization. Sense, syntax, and sound-spellings are, in compact form, the three main sources of cues with which to figure out a passage (see Fig. 7). Two of these are the ideas or the ongoing sense and the vocabulary/grammar, syntax having to do with the word endings, the word order, the relationships among words. Vocabulary/grammar goes with the syntax . . . is the second source; and then comes the final one, the sound-spellings or the phonics, the phonetic relationships, how all the forty-odd phonemes in English are actually spelled in various situations.

Now, again to speak just of the literacy level, we do best, I think, to bank heavily on the larger context. The larger the language unit that is used as the learning unit, the better off we are. Count on the wholes to teach the parts, that is, the ongoing meaning, the sense, the syntax, and so on, to bring along the sound-spellings. This is how a kid who has been presented only a few of the sound-spellings, through phonics, can learn the rest on his own . . . because he can use the little letter knowledge he

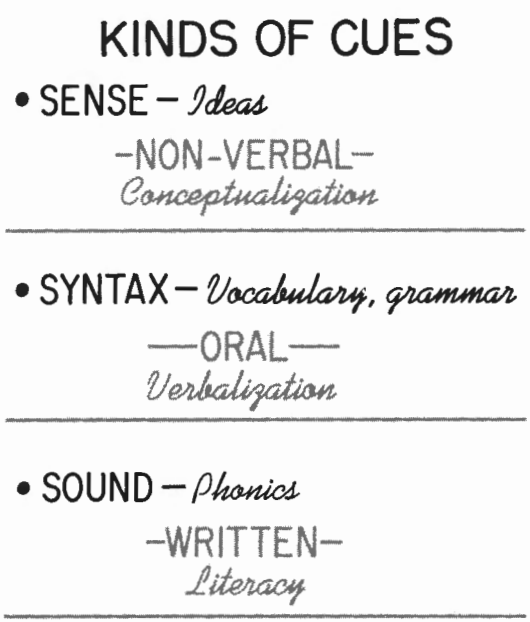

Figure 7

has. He can get a lot of mileage out of the little visual knowledge he has so far accumulated by using the oral knowledge he already has, preschool and out of school, the oral knowledge being the meanings that attach to the words and his knowledge of the grammar and oral vocabulary.

I have been dwelling just on the decoding aspect. I want to shift now to comprehension. If literacy is concerned only with the overlay, the last level of coding, in Fig. 1, then what about those first two levels? They are also part of the definition of reading. Remember, I began by saying that it's a word that has a double meaning. The person who is listening to something being read aloud is doing all the comprehending, in the case, let's say, of the Hebrew being read aloud, and the person who is reading it but does not understand it is doing the decoding. What *about* the comprehending? One of the main things, it seems to me, that this kind of analysis shows is that two-thirds, at least, of learning to read does not necessarily have anything to do with books or letters, print. In other words, the audio-visual shift, from the medium of the ear to the medium of the eye, is only the tip of the iceberg. Before that can have any meaning, utility, or motivational force, we have to have developed and continue to develop in students the thinking and speaking skills represented in Fig. 1 by "conceptualization" and "verbalization."

What teaches those things? Well, a million things teach them, right? All of the accumulating experience that a learner acquires from many, many sources, through many, many media, methods, and materials, is

teaching reading. Part of our difficulty, I believe, is in considering reading as a kind of isolated specialty and as a sort of technical problem concerning books. I think often a student's difficulty with reading does not have to do with the speech-to-print shift, or, at least, that in order to handle that, they have to develop the others. In other words, you learn to read from talking, from getting the kinds of experience that develop the intellect, that develop concepts, logic, much of which can be done orally.

Comprehension, in other words, is not simply connected with reading. In nonliterate or preliterate cultures, everybody is comprehending all the time. You read the environment, you read other people, you listen to what other people say. There is oral comprehension and, if this is highly developed, I think there'll be no problem of reading comprehension, given, of course, that students do make the media shift. We have to think of the teaching of reading as comprising—I think this is the only realistic way to consider it—as comprising the whole mental and verbal life of the student, so that anything that develops thinking and speaking is going to have big payoffs for reading, as well as motivating the desire to read. It's possible to teach, I think, all levels at once to some extent, and this is highly desirable for reasons that I've been suggesting and that have to do with banking more heavily on methods three and four—the whole-sentence, whole-continuity methods that teach the parts through the wholes.

Let me describe a little more fully the method I call the lap method, number four or read-along, the one that has not been generally recognized as a method. Now, never mind that you may be interested in older students—this applies at any level. You say, well, how can they really learn the basic skills, word attack and spelling, by just listening to whole texts like that without isolating particular phonemes. How are they ever going to learn those details . . . really nitty-gritty details? I will try to explain how I think that happens; it has to do with the whole issue of wholes teaching parts.

Traditionally, what happens with preschool children and the bedtime story? They are following the text with their eyes, let's say, and they hear the parent reading in their ear. There's not too much text on a page, and often the typography is such that certain words stand out—end positions, different type, enlarged, and so on . . . often they are connected with pictures, a lot of picture cues. And there's a lot of repetition—the format of the stories has repetition—so that the children recognize certain words coming up again and again and, at the same time, they hear the sound of the word. Well, what happens at first is that they memorize whole pages. If you've read many bedtime stories to children, you know that they memorize the story after a while and, if you get anything the least bit out of order, they really raise hell about it. They won't let you omit anything and get things out of order, and they can turn the pages for you after a while. Okay, you say, well, that's not really reading, and it's true,

because if you took the same words on that page and wrote another text with them, the children would not be able to read that yet. Fine. They have begun the reading process in this sense, though: they are turning pages, they have the whole idea that there are ideas in the book, locked into the pages, that you open the book, you turn the pages, the ideas unfold, the story ideas, the images, that there is *pleasure* connected with this, that there are goodies locked in the book, that it's very positive, it's unthreatening, it's something one wants to do. Furthermore, they've got the synchronization to some extent. They're now synchronizing large blocks, by memorizing the pages, let's say.

O.K., to pursue this, though, what happens if they're read to very regularly—and it takes a lot of it—the same text sometimes, a new text sometimes, so that there is some old, some new? What happens eventually is that their focus gets finer and finer and finer and, instead of just the gross blocks of whole pages, it gets down to certain sentences, phrases, certain words they recognize, the number two level there of sight words—again, the repeated words, the words that are made to stand out and so on—but also they're getting down to the phonics level of number one. With enough quantity, they begin to recognize that the WH, for example, that little configuration there, appears wherever they hear the "wh—" sound—*which, what, why, where* sounds; it's in the initial position. So, after a while, they generalize for themselves that WH spells that sound, and that is learning to read, to become literate. They do this gradually—no doubt, with the easier things first, the consonants, then the short vowels and so on, then long vowels—and they begin, in other words, to infer for themselves the regularities of English spelling in exactly the same way they did this for the grammar of the language in learning to speak. The old biocomputer that does this sort of thing, that is part of human functioning, is doing this generalizing in there, and it got well exercised before the children came to school. They have already learned some of the basic concepts and vocabulary so that all they are trying to do now is to attach those things that they already know to the new medium of print, using all of these cues.

I think this is what happens, then, in the read-along or lap method, seeing and hearing language at the same time. It gradually refines down, down, down, and the children get very specific and they learn phonics from that, and this is how many, many students have learned word attack beautifully, and spelling, without any phonics. But this has not been considered a school method, and I'm obviously making a very strong pitch for it, partly because of the problem of righting an imbalance; it has been virtually omitted so far.

Practically speaking, of course, you do not have to have a lap and, if you are teaching secondary students, a little face-saving has got to go on. You use other students perhaps who are more advanced, who are able to

decode well. They might even rehearse a little first and then read to the weaker readers. Older students with younger . . . I have been involved in experiments in elementary school where fifth and sixth graders come in and pair off with primary or first grade kids. Both like their relationship and, with just a little coaching, the older kids can do this very well. It does not take a teacher, it only takes someone who is literate and who is interested in doing it. So, parents, aides, older students all could do this, provide a live voice, a live audio, for the beginning or weak reader.

In addition to a live voice of this sort, you can, of course, have a recorded voice. In the *Interaction* program I referred to earlier, we recorded eighty hours of the texts. You don't have to buy the recordings. You could make the recordings yourself, have other people do it, have students do it after they have rehearsed, but I would suggest recording a lot of the texts you are using in the classroom, or if you're working with other people in the classroom, you might recommend this to them. I have even recommended this at the college level. An economics professor says that his students cannot read or do not understand the text. And I say, "Well, if you read it to them, do they get it?" And he says, "Well, it goes a lot better that way." I say, "Okay, then record it." So, they go get the recording *and* the book. The illiteracy problem is so bad in this country that it's rising through the grades and is now a serious problem in many colleges. For older students, at any rate, a recording of the text so they can do read-along or the equivalent of lap method is an excellent way, I think, for taking a person who is dependent and not proficient and helping him to become independent and proficient without loss of face, without a tremendous sort of ego ordeal, of putting self-esteem on the line, because it's really fairly easy.

To get on to other recommendations I would make for creative programs in reading, I think it's essential to integrate reading with the other language arts. This is implied in what I've been saying so far. The larger the context, the easier the learning is. The more you isolate reading from the other language arts, the harder it is to teach, just as the more you isolate phonemes from the normal language context, the harder it is actually to teach them. We have a technical approach; we think if you isolate something out and drill on that, students will learn that and then they'll put it back together with the rest. That doesn't happen. Reading itself includes that hidden part of the iceberg that doesn't have to do with books, the thinking and speaking skills. For this reason, it develops better if it's connected with all the content areas. Fortunately, there's an emphasis today on reading in the content areas, I think partly because students read so badly that the problem of literacy has spread across the board now in schools as well as up the grades. At any rate, a positive effect has been to help integrate reading with the other language arts. By "integrate," I mean that reading tasks or assignments should be, I think, tied in to little

series of activities, such, for example, that a student writes something, discusses, reads, acts out, and so on . . . various interweaving of the language arts with each other and with the graphic arts, the combining of reading with photos in the forms of captions and labels, maps, charts, graphs, where words are combined with graphics. This does a number of things at once. It teaches students to use one of the language arts or one of the graphic arts to get a leverage on reading, but it also *interests* them in reading. It has a motivational payoff. The larger the context, the more meaning, the more motivation.

Now for some of the kinds of reading matter that I think it would help to introduce into the classroom. I mentioned charts, graphs, maps, and captioned photographs—graphics combined with words. In the *Interaction* program, we put out whole booklets of nothing but those, so that they'd be legitimized as reading matter. We didn't care about whether this was language arts, social studies, science, because when you get into things like that, they cut scross the different disciplines. The use of transcripts . . . a tremendous amount of really interesting material covering any kind of subject matter students might be interested in is purveyed or appears in our society in the form of transcripts. Interviews, talk shows, hearings, court trials—a lot of this really interests students and, because it's oral transcription, the speech sounds natural, not so foreign to them. Yet, in these interviews or talk shows or trials, the content can be quite deep and can cover any kind of interest.

Again, the problem with meaning is in a way the biggest one. If you do integrate reading with the language arts and with the other arts so that reading has warm-ups and follow-ups, you'll find that it's tremendously powerful. For example, students reading a few fables together . . . a small group reading a few fables together, then writing their own, discussing fables without the moral until they try to agree on what the moral of the fable is and then looking to see what the moral is and then maybe writing some more fables of their own, and distributing these to other students who would then use that as reading material. Do you see what I mean? Interweaving the language arts.

I would recommend partner reading. This presupposes a system of small groups reading different kinds of reading material at the same time. I think it's self-defeating—and almost too negative to work with—to have an entire class read the same thing at the same time. I know this is standard procedure in most U.S. schools, but it's also one of the main reasons why we are having trouble with literacy. It's a gamble that you're bound to lose. The spread within any grade—third grade, tenth grade, it doesn't make any difference—the spread of interest, subject matter, content, of reading difficulty, of style, of individual and ethnic variation is so great, even in a so-called homogeneous classroom that, in effect, you

have a spread of grades anywhere from four, six, eight to ten years within any one year, so that to assign the same text to a class at the same time is very self-defeating. I think there's no way to win that one. I realize this indicates a different kind of classroom organization, but that is precisely what I'm recommending. If we're serious about beating the reading problems in this country now, I think it means we have to individualize the reading from first grade on, but by "individualize" I don't mean programmed materials, that's for certain. I do mean students choosing their own reading material, given a very wide array of subject matter and difficulty, but this doesn't mean working alone. I think, on the contrary, most students, particularly if they're weak readers, will prefer to read something in company with a few partners. So what I recommend is a small-group process where students choose their reading material in combination with a few partners who are also interested in the same content, let's say, the same form, or read at about the same level of difficulty, enough to get along anyway.

So there are a number of things that go along with this approach. One is that you have to have a far wider array of reading materials in any one classroom than is customary; otherwise, individualizing is just a hollow slogan, as, indeed, it usually is. If there's no opportunity for the individual to find something of his own level to really interest him, then nothing else will work, and learning to read will seem the technical matter that you have to solve with a lot of expensive gear in a language lab, a reading lab, when actually it isn't. But the small groups choosing together the reading materials—this means, for one thing, you don't need whole-class sets of any text. What you need is to trade off the number of copies for the number of titles, get more titles in a classroom, but only a handful of copies for each, in some cases maybe only one or two. So an individual with a partner, or maybe in a small group of four, five, or six, can get both the advantages of individualization—that is, finding something that's really matched to them—and at the same time the advantages of cooperation and socializing. This is very, very powerful—different groups reading different things at the same time. I would recommend this also in a high school social studies or science course. We're rapidly losing students in the content areas in secondary school because the textbooks are just so hard for them to read or so uninteresting that we don't know how much is reading difficulty or how much is just indifference. The new math textbooks are virtually unreadable for most students. Again, we don't know how much the problem is simply motivational, because math is a dehumanized subject as it is generally presented in textbooks. So we have to get off the gold standard of the uniform textbook and, I think, get into something else, into what I'm describing.

Now, a way to facilitate this is to have a very varied, wide classroom

library and to have the books cross-referenced to recordings of those texts, when you have recorded them, so the students can get the text and the recording and, as a group or alone, go off and play those. Have the books also cross-referenced to other materials that might be used in connection with them, such as graphic materials, or to activity cards that give the students follow-up activities to do in the way I was describing earlier, the interweaving.

So solving the problem of reading, I think, very much involves fairly drastic changes in reading materials and in classroom management to allow more powerful methods to operate. The same for number three, the language-experience approach of the learner dictating his own content and having somebody else write it down. That is usually done in primary school, but there's no reason not to do it in secondary. Although the teacher cannot, as with the read-along method, employ a machine, I recommend a kind of buddy system of more proficient students taking down the speech of the less proficient or—this may be most appropriate for secondary—having students talk into a tape recorder (again, maybe as a small group) or improvise a scene with a tape recorder going and then, together, transcribe their own words. This is very popular with many secondary students. It does not look babyish. It's really a language-experience method done in a more practical way for secondary. Together, with the teacher's help and with each other's help, collectively, they can transcribe their own speech and then read this back, read it to other people, or pass it on for someone else to read. It's a good use of the tape recorder, I think.

In general, I think the voice has to act as an intermediary for the beginning or weak reader between his oral language, his nonverbal experience, and books. The voice has to be the intermediary, in a progression somewhat like this: First, he has to hear some literate person sound the language while he sees it, to get the pairing of language sounds with spellings, or his own voice in the case of language experience; but there has to be an external voice to provide that intermediary in the beginning. Then what happens is that he internalizes gradually the aide's role so that he begins to be able to read solo silent more, and he is subvocalizing. The progression is: somebody else reads to you, then you begin to read out loud with partners taking turns reading the same book to each other in a small group, and then you shift the voice inside and subvocalize. The final stage—and this involves speed reading for those who are very proficient already—is that the voice disappears completely, even the inner voice, so there is a direct connection between *thought* and *sight* that bypasses the intermediary of vocalization, even subvocalization. At that point we are not talking about the kind of learners that most of us are involved with; we are talking about someone who has learned literacy so

well that he can now read at the speed of sight rather than at the speed at which he can read a text aloud, and that is where you get into the Evelyn Wood type of speed reading for those for whom it works.[1]

This dissolving of the intermediary is equivalent to how, I am told, the Balinese teach their children to do their traditional dances. The adult stands behind the child and moves his body in the way the dance is made to move, and the child just moves with him by being receptive. They continue to move together like this until eventually the adult simply steps back and the child continues to move on his own. The supplying of the audio is like that, of live or recorded voice. It has to supply that kind of intermediary until the student can take off on his own. Solo silent reading may be the goal, but it's not the means. The means are social, interactive, and external until the process is learned, and then they can go on internally.

The final point I want to make is that I think the teaching of reading today, the main trends of it, are negative and going in the wrong direction, for some reasons that have to do with orientation of the whole culture, which at the moment is, in its materialism, directed toward the analytic and the particle, to breakdowns, to disintegration. The computer—which is not in itself anything bad—the computer can, in a way, symbolize this, in the way we have used it. The computer needs fine breakdowns. Programmed materials need fine breakdowns. Managerial technocrats, who want finely sliced instructional objectives, want fine breakdowns. The whole of the educational–industrial complex in this country now is pushing hard toward breaking reading and all other learning into very fine units, which is disintegrative.

As I say, it's part and parcel of a general materialistic trend that follows the lead of the federal government, which has had an extremely negative influence through its funding programs. State legislatures have followed in turn, and now it's very difficult to get support for a realistic kind of approach to reading because the trends in political and economic and legislative circles are going the other way. I say this not as a matter merely of complaint but in a positive sense. I think if as people involved in the teaching of reading you believe some of what I'm saying—you have similar insights, or this makes sense to you, or you want to test it out for yourself—you're going to have to lobby for it. I think corrective action is very much needed. The diverting of huge numbers of secondary students into labs of programmed materials where they're run through

[1]I did not mean to imply by this pragmatic line of reasoning for schools that people cannot in some circumstances connect thought to sight directly or initially. Deaf people frequently bypass oral speech in learning literacy, and to learn an oral symbol system before a visual symbol system is only a cultural convention, not a biological necessity. Preschool children's drawings and much of the world's graphic art also connect sight directly to thought.

phonic sequences they had over and over again in elementary school where it did not work the first time—this is a tremendously negative thing.

In this connection, standardized tests, I think, have been misleading us greatly, because they have no audio component. The use of cheap standardized paper and pencil tests—and that characterizes all of the ones we go by—misleads us because, without a vocal, audio component, there is no way to distinguish between decoding and comprehension problems. If a student scores low on a standardized test, *we do not know what it means.* It's generally assumed that because the test is called a reading test it's in the decoding sense that the student is failing. Most often, I would say, that is not the case. The older the student, the less true it is. More true, I think, is that his problem is in the oral language realm of thinking and speaking—what I have called the real basics. He simply doesn't know the vocabulary, he can't use the cues of sentences, the meaning, to figure out a text. But it's assumed he has a decoding problem, so he's shunted into some government-funded reading laboratory that has a lot of expensive material that isn't going to help him. If it worked, we would know by now. So I think the drift is the other way and we are engaged in trying to right that imbalance and we may have to fight for it.