leview

termining what these standards should be. Minimum competencies have been prescribed based on the assumption that specific knowledge, skills, and behaviors are needed for students to function successfully as adults. Yet, data are not available to substantiate that the competencies currently required are the only (or most important) ones necessary to ensure success in the various adult roles for which they are purportedly prerequisites. Might a student who fails the MCT and is denied a diploma become successful if success is measured by subsequent earnings?

The identification of the list of required minimum competencies has particular implications for various categories of handicapped pupils. The selection of certain skills, such as the ability to write, might automatically exclude some physically handicapped children from satisfying the MCT requirement. Should the inability to write result in a label of incompetence if the individual can communicate adequately using other means?

States and local school districts may increase their vulnerability to educational malpractice suits if certain competencies used as a diploma requirement cannot be justified. Moreover, there are other sources of potential liability associated with MCT mandates. A student possibly could secure damages by establishing that the prescribed skills have not been adequately taught, that the skills taught have not been mastered (despite passage of the MCT), or that the skills acquired have not resulted in the promised success in adult roles. Although plaintiffs have not yet prevailed in charging school districts with instructional negligence, ⁸⁶ MCT mandates may provide stronger grounds for such suits.

Conclusion

It seems unlikely that courts will or should exempt handicapped students from diploma requirements, including passage of a proficiency examination. However, it seems quite likely that the judiciary will continue to scrutinize MCT mandates to ensure that handicapped as well as nonhandicapped pupils' substantive and procedural rights are protected. The amount of notice legally required before using an MCT as a diploma sanction, the scope of accommodations required in administering competency tests to handicapped pupils, and the nature of proof necessary to substantiate the validity of proficiency examinations seem destined to generate subsequent litigation.

The legal activity pertaining to MCT mandates may ultimately force states to be more precise in articulating objectives for public schools and in defining the purpose of a high school diploma. State and local educational policymakers may be faced with justifying the selection of certain competencies as diploma criteria and proving that these particular competencies are in fact prerequisites to success in various adult roles. Moreover, school officials may be judicially required to substantiate that examinations and other student assessment strategies are valid measures of what has been taught and what should be learned. Legal controversies over MCT mandates may nurture a change in the traditional judicial deference to educators in academic matters. The coming decade may witness an increase in judicial activism to assure that academic standards and student evaluation practices are indeed fair.

Literacy and Language: Relationships during the Preschool Years

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Drawing upon recent research findings and upon a case study of a child learning to talk and to read, Catherine Snow outlines the important similarities in the development of both language and literacy. The characteristics of parent-child interaction which support language acquisition—semantic contingency, scaffolding, accountability procedures, and the use of routines—also facilitate early reading and writing development. The author dismisses the explanation that variations in the level of literacy in the home are responsible for social class differences in school achievement. To explain such differences, Snow emphasizes distinctive ways in which middle-class families prepare preschoolers to understand and produce decontextualized language.

Twenty years ago it was something of a commonplace to suggest that working-class and minority children were deficient in language ability when compared to middle-class, mainstream children. During the last two decades, however, considerable effort has been expended to demonstrate that, although working-class and minority children may use language differently from middle-class children, they are not deficient in language ability. Their language is as complex and their mastery of language as complete as it is for middle-class children (Dittmar, 1976; Edwards, 1976; Miller, 1982).

The conclusion that working-class children are different, not deficient, has not, however, been extended from language ability to literacy. Social class differences in reading achievement are large and reliable (reviewed in Anastasiow, Hanes, & Hanes, 1982; Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966; DeStefano, 1978; Stubbs, 1980). They have not been eliminated by "Sesame Street," Headstart, Follow Through, or other interventions aimed at poor and minority populations (Carnoy, 1972; Kennedy, 1978; Rivlin & Timpane, 1975; Stearns, 1971), even though lasting effects of intervention on other aspects of school achievement and school competence have been found (Lazar & Darlington, 1982).

The persistence of social class differences in reading achievement is puzzling in light of (1) the widespread assumption that language and literacy are closely related skills (Cazden, in press; DeStefano, 1978; Loban, 1963; Simons, 1970; Shuy, Note 1) and (2)

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⁸⁶ See Hunter v. Board of Educ. of Montgomery County, 439 A.2d 582 (Md. App. 1982); Tubell v. Dade County Public Schools, 419 So.2d 388 (Fla. App. 1982); Hoffman v. Board of Educ., 424 N.Y.S.2d 376 (1979); Donohue v. Copiague Union Free Schools, 391 N.E.2d 1352 (N.Y. 1979); Peter W. v. San Francisco Unified School Dist., 131 Cal. Rptr. 854 (Cal. App. 1976).

the evidence that there are no social class differences in language skill. Clearly, reading is a form of language use. Reading ability is highly correlated with measures of language skill such as vocabulary (Davis, 1974; Farr, 1969; Spearitt, 1972; Thorndike, 1974, 1975; Yap, 1979), tests of grammatical knowledge (Dale & Chall, in press; Simons, 1970), and of metalinguistic awareness, the ability to reflect upon and talk about linguistic forms (Menyuk & Flood, 1981; Salus, 1982). Why then, if there are no social class differences in language ability, do we find such differences in reading and other literacy skills?

The answer to this question might be that literacy and language, though related, are in fact very different skills, and thus differently distributed in the population. If literacy is sufficiently different from language that its course of development is subject to a different set of influences, then a much greater degree of variation in literacy skill than in language skill could result.

This article first will argue that such an explanation is not correct and that, in fact, literacy and oral language are very similar and closely related skills which are acquired in much the same way. This argument rests on a demonstration of the many similarities between language and literacy during their acquisition. The second section will examine the major alternative explanation for social class differences in reading achievement, that the level of literacy in the home predicts literacy skill, and will reject this argument as well. Finally, the third section will propose a reanalysis of the demands made on children during literacy activities, in an attempt to identify more exactly the nature of the failure of those children who do not progress in the acquisition of literacy.

Language and Literacy Defined

The tendency in recent research on literacy (Olson, 1977; Scollon & Scollon, 1982; Tannen, 1982) is to emphasize the degree to which literacy is continuous with language, and to point out the ubiquity of literacy experiences in children's lives. Since this tendency has led to some blurring of the meaning of the terms "oral language" and "literacy," it is important to define these terms precisely. By literacy, I mean the activities and skills associated directly with the use of print—primarily reading and writing, but also such derivative activities as playing Scrabble or Boggle, doing crossword puzzles, alphabetizing files, and copying or typing. Oral language refers simply to all oral forms of communication, speaking, and listening. Thus, I would reject such formulations as Scollon and Scollon's literate two-year-old (1982) to refer to a child who uses orally some of the conventions normally associated with written stories, or Tannen's description of literate conversational styles (1982). It seems to me that such uses of the term "literate" confuse frequently co-occurring but noncriterial characteristics of literate activities with the crucial defining feature of literacy, the use of print.

Parallels Between Language and Literacy in Development

Complexity of the System

Learning to read and learning to talk are both challenging tasks, in part because the systems which must be acquired are complex. Furthermore, both domains require a complex mapping of form onto meaning. Expert levels of performance in both domains require the knowledge and ability to honor, purely for the sake of correctness, conventions

which are not derived from the semantic or communicative system. That learning language and learning literacy are complex tasks is evident in the length of time it takes children to master them and in the amount of concentrated effort, investment of energy, and frustration at failure both tasks occasion.

Maturational Limitations

No one could reasonably deny that the course of maturation plays a major role in the development of language and literacy. There is an age below which children have considerable difficulty learning to talk or to read—though for reading this age may be considerably lower than proponents of "reading readiness" are prepared to admit. The process of learning language is fairly slow and painful for the one-year-old and is considerably faster and easier for the older child (Snow & Hoefnagel-Höhle, 1978). Similarly, though it is clearly possible to teach a two-year-old to read, a six-year-old can be brought to the same level of reading skill in considerably less time. The finding that children with organic learning disabilities which slow the course of reading acquisition also show language disabilities (for example, Bannatyne, 1971) underlines the degree to which the state of the brain can influence the course of development of both language and literacy.

Centrality of Social Interaction and Communicative Needs to Development

Ten years ago, it was commonly assumed that syntactic development could be treated independently of pragmatic and semantic development. Today, however, no one would deny that language development can be understood only as an aspect of the development of communication in general, and only in the context of the child's interactions.

Learning to read has traditionally been seen as a cognitive problem—something children have to solve on their own, inside their own heads. Only recently has reading been treated as a social phenomenon—one which often occurs by and in groups (Bloome, 1981), and which is intrinsically embedded in the culture of its users (Heath, 1980). Many examples could be given to demonstrate that the social nature of the reading process is especially potent during the earliest stages of its acquisition. This article presents a few examples from one child, Nathaniel, in interaction with his mother, which demonstrate the relevance of three characteristics of social interaction in literacy acquisition and training—semantic contingency, scaffolding, and accountability procedures.¹

It is well demonstrated (Cross, 1978; Wells, 1980) that a major facilitator of language acquisition is semantic contingency in adult speech. Adult utterances are semantically contingent if they continue topics introduced by the child's preceding utterances. Semantically contingent utterances thus include: (1) expansions, which are limited to the content of the previous child utterance: (2) semantic extensions, which add new information to the topic; (3) clarifying questions, which demand clarification of the child utterance; and (4) answers to child questions. Topic initiations by adult speakers and attempts to switch the topic from the one introduced by the child constitute semantically noncontingent speech, and the frequency of such utterances in parents' speech correlates negatively with children's gains in language ability.

¹ Nathaniel, the first-born child of academic parents, was tape-recorded at home during everyday activities such as meals, dressing, undressing, and playtimes, between the ages of 18 and 36 months. Recordings were made approximately every other week, in one-half to 3 hour sessions. Reading books was among Nathaniel's favorite activities during this time, and many of his book reading interactions were recorded.

The notion of semantic contingency can be applied to the literacy domain as well. Examples of semantic contingency to literacy behaviors would include answering questions about letter and number names, answering questions about words, reading out loud on request, answering questions about pictures in books, carrying on coherent conversations with children about the pictures and text in books, and giving help with writing when requested. Semantic contingency to literacy-related behaviors seems to be associated with early acquisition of literacy. All of these literacy-contingent behaviors are typical of middle-class families, and they have been identified (Clark, 1976; Durkin, 1966; Söderbergh, 1971) as instrumental in producing preschool readers.

Parts of the lengthy exchange between Nathaniel at 31 months and his mother presented in Table 1 demonstrate many of these characteristics of semantic contingency

TABLE 1 Semantic Contingency in a Literacy-focused Interaction Between Nathaniel (31 Months) and His Mother

Line	Nathaniel	Mother
1	put it on the board	
2		*what's that
3	Mmmmm	What's that
4		*Mmmmm
5		*put the M on the board
	(N picks up an 8)	put the Wi on the board
6	,	*what's that?
7	dat	what's that:
8		*eight
9	eight	eigitt
10		*that's a number
11	number	that's a number
12	rectangle	
13	-	+ a rectangle
14		+ that's a shape
	(N picks up a 2)	+ mai s a shape
15	,	*what's that?
16	that?	what's that?
17	is it?	
18		*what is it?
19	is it?	what is it?
20		*have you forgetter that a con
21	a two	*have you forgotten that one?
22		*two, that's right
	(N hiccups)	two, that's right
23		+ you've got the hiccups
24	mommy have hiccups?	+ you ve got the niccups
25	stays up	
26	•	+ stays up, yeah
27		
28	stays up	+ mommy gonna help, okay?
29		+ stay up
30	there's Nathaniel (pointing to number	+ stay up
	sequence)	
31	,	*where's Nathaniel?
32	there's Nathaniel	where s mathanier?

Continued on next page

TABLE 1—Continued

ine	Nathaniel	Mother
33		*that's not this says # 1
		2 3 4 5 6 7 8 9 10
34		*shall we make it say Nathaniel?
35		*do you want it to say Nathaniel?
36		*have to find the right letters
37		*find me an A
38	enne find a Z	
39	find a Z	
40		*is that a Z?
41		*you gonna put the Z up?
42		*okay, there's no Z in Nathaniel though
42		let's see, here's an N and there's
		another N, Nathaniel, we need that
43		here's an I
43 44		here's a better I
44 45		we need an E
45 46	need E	We 11000 at 12
40 47	need L	and we need a T and an H
47		here's here's an H
48	Т	nere 3 nere 3 an 11
40 49	н	
	n	and there's an L
50	L	and there 3 an L
51	L	what else do we need?
52		can we put this in, pretend this is an A'
53		N A
54	W - 12 - N - 1	N A
55	this like that	* the tile that of
56		*you want to put that like that?
57		*okay
58		*that's not part of Nathaniel,
		you understand. Well, Nathaniel,
		I can't find all the letters we need
59		we need a T
60		where's the T?
61	here's the T	
62		*there's the T
63		oh, you found one
64		NATH
65		we need another pretend A
66		here's another pretend A
67		ANIEL
68		spells Nathaniel
69		isn't that good?
70	enne do it	
71	enne do 1 2 3	
72		*you can see where there's 1 2 3
73		*look, look, what does this say?
74	1 2 3	
75		*4 5 6
76	4 1 2 3 more	
77		*7 8 9 10
78		*right there it says that
79	enne do X	, , , , , , , , , , , , , , , , , , , ,
80		*X

Note: + Semantically contingent response

* Semantically contingent response to a literacy-related behavior or utterance

(marked with a +). Nathaniel's mother had been proposing a trip to the playground but dropped that discussion when Nathaniel sat down at his playschool desk, picked up a magnetized plastic M, and said, "Put it on the board" (line 1). In the subsequent conversation his mother asked him to name the symbols he picked up (lines 6, 15, 18); repeated and confirmed his correct labels for symbols (lines 4, 22, 62, 80); corrected his errors (line 33); provided labels if he did not know them (lines 8, 33); and helped to accomplish tasks of finding letters (lines 42, 43, 44, 45, 47, 50, 52, 53, 54), finding number sequences (lines 72, 73, 75, 77, 78, 80), and creating letter sequences (lines 64-69). It is clear, though, that large chunks of Nathaniel's mother's speech in Table 1 are not semantically contingent. She introduced their major literacy task herself (spelling *Nathaniel*, line 34) and persisted with it rather than following his lead in other directions. In the conversation that continued from the one in Table 1 she twice even interrupted his concentration on the letters to clean out his ears!

Nathaniel's mother also demonstrates another commonly noted feature of language facilitation, scaffolding. Scaffolding (Bruner, 1978) refers to the steps taken to reduce the degrees of freedom in carrying out some task, so that the child can concentrate on the difficult skill he is in the process of acquiring. In interaction with younger children, for example, mothers may rearrange the pieces of a puzzle so they are right-side up or steady the bottom blocks in a tower so that the child can successfully continue the task. Nathaniel's mother extensively scaffolds the rather difficult task of spelling Nathaniel by reminding him of what they are doing, rejecting false starts (line 42), and guiding the letter search. She also rearranges the letters on the desk so he can find the required ones more easily.²

A more consistently semantically contingent interaction occurred between Nathaniel and his mother the evening of the same day (see Table 2), when he again sat down at his desk just after getting ready for bed. (At 31 months, Nathaniel was well aware that literacy activities were better bets for postponing bedtime than other types of play.) This time he introduced the task of spelling Nathaniel (line 87) after completing his other chosen task of spelling Lia. His mother did not respond immediately to his switch to Nathaniel because she was intent on holding him accountable for completion of the prior task, insisting that he repeat the spelling of Lia and "read" Lia before moving on. It is interesting to note that Nathaniel did not understand "you read it" with reference to a word. He responded "(have to?) read de book te see Lia" and "read the book to Lia" (lines 89, 91), revealing his understanding of reading as an activity related to books, not to words.

Note in Table 2 the ambiguity in several cases about the status of maternal utterances as semantically contingent (marked with a?). Many of the mother's comments fail to be semantically contingent to Nathaniel's immediately preceding remarks because she is persisting with the higher-order task of getting something spelled or read. The status of such deviations from utterance-by-utterance semantic contingency is unclear within Cross's (1978) or Wells's (1980) formulation of the semantic contingency hypothesis. However, Dore (in press) deals very well with such maternal behaviors within his two-by-two categorical split between positive/negative accountability/nonaccountability. In

TABLE 2
Semantic Contingency Limited by Accountability Procedures (Nathaniel, 31 months)

Line	Nathaniel	Mother
1	wanna spell Lia	
2		*you wanna what?
3	eh wanna spell Nathaniel	
4		*you wanna spell Nathaniel
5	eh wanna spell Lia	
6		*you wanna spell Lia
7		*okay
8		*what does Lia start with?
9	Lia starts with a N	
10		*no, Nathaniel starts with an N
11		*Lia starts with an L
12	Lia starts with a O	
13		*no, with an L
14		*not an O, an L
15	put the O up there de	
16		*okay, we don't need an O
17		?have to find an L
18	de eh T I need a T either	
19		*don't need the T either, no
20	I need I no moon	
21		*no, we don't need a moon either, no
22		?let's see
23		?let's put these things up here that
		we don't need
24		?cuz we don't need those, and maybe we'll
		find an L
25		?while we're looking
26	looking	
27		?see if you can find an L
28	eh there's a T for to put it up there	
29	1 - 1 1 - T	*no, we don't need a T
30	don't need the T	* d 10 1 - 10
31	1 1 1 1 1 1 1	*don't need the T
32	don't need to need that	*
33	To the condition of the con-	*what's that?
34	don't need that eiger	
35	don't need the big (* # = 14 = 1 = 1 = 1 = 1
36		*don't need the big I
37	oh dis doesn't work	*that's right
38	on dis doesn't work	Abat dassalt
39 40		+ that doesn't work?
41		+ oh
42	that doesn't work up there	+ there
43	that doesn't work up there	2ara yay laaking for an L. Nathanial2
44		?are you looking for an L, Nathaniel? ?can you see an L?
45	LoI don't know eh that Nathaniel is	?can you see an L?
45 46	TO I don't know en mat Namaniel is	*vou don't know what that is
40		*you don't know what that is *that's a number
48		
48 49	I don't do dat apall Lia with a 4	*that says 4
50	I don't de dat spell Lia with a 4	*no you don't anall tip with a 4 that's sist
50 51		*no, you don't spell Lia with a 4, that's righ
51 52	IIII	why don't you see if you can find the L
32	1111	

Continued on next page

² Farr (Note 2) discusses how a teacher uses comments on a student's journal to scaffold the writing process for the child.

TABLE 2—Continued

Line	Nathaniel	Mother
53	I find another 4	
54		*that's right, that is another 4
55		?see any L's yet?
56	this uh this uh this a O	rood any Loyet.
57		*that's an O
58	this uh this uh who's this?	
59	who de do like that (?)	
60	do dit on de dat	
61		?put your glasses on when you read, you
62		can see better
63		?but we're looking for L's, Nathanie!
64		?we need the L's
65	ordered to the day	?where are the L's?
66	where's the L's?	
67	Abia Ab - 11-	*see any L's?
68	this the L's	
69		*ooohh
70		*oh, there's an L
71		*put an L up, for spelling Lia
72	But the other Lun and the Live way	*very good
73	put the other L up spelling Lia with the other	
74		?now we need we need an I, Nathaniel
75	eh enne need a other I	?where's an I
76	ch enne need a offier f	
77		*put the I over there
78		?I, I and now we need an A
79		*oh, you found it
80		*put it right next
81	that's an A	*put it next to the I
82	that 5 an A	.
83		*that's an A
34		?put it next to the I
35		?the other side
36		?oh, Lia
37	enne spells Nathaniel now	?that spells Lia
33	sime spene readilatine flow	
		listen, how do you spell Lia?
39	(have to?) read de book te see Lia	you read it
90	, ao book to doe Lia	what days the impa
1	read the book to Lia	what does that say?
12		it's just a latter life to a
3		it's just a letter, it's just a word
4		you spell it L I A
		okay, Nathaniel, we're just going to
		spell Nathaniel, and then after that
5	L O (?)	Nathaniel goes to bed
6		?what do we need for Nathaniel?
7	enne need the S	. what do we need for Nathanier?
	(shaking head)	
8		*VOIL don't pood the C for Notice
9		*you don't need the S for Nathaniel, no ?what do you need
0	eh put dit up dere	. What do you need
1		*okay, what do you need for Nathaniel?
2		*what letter?
3	enne need de N	······································

Continued on next page

TABLE 2—Continued

Line	Nathaniel	Mother
104		*you do need the N, that's right
105		*put the N up
106		?what else do we need for Nathaniel?
107	need eh need de other l	
	neca en neca de etner i	*that's right, we do
108		*you put that up there too
109		?what else do we need?
110		: What cloc do we hood.
111	need the circle	
112		+ no
113	put the circle right there	Olympia and this I
114		?here, we need this L
115		?put that L over there
116	put the put the L right there	
117		*yeah, we put that L up there cuz we're
		gonna need that L
118	enne put the O right there	
119		?for spelling
120		?but you don't need an O, Nathaniel
		?don't need an O for spelling Nathaniel
121		?better take the O away
122		?okay, now we need an here, we need
123		this A
124		?and we need a T
125		?can you find a T?
126	enne find de other T	
127		*can you find a T?
128		*oh, very good
129		?you put that T right next to the A
130		?turn it upright turn it right side up
131		?that's right
132		?and now we need an H
133		?can you find an H?
134	find de M	,
	IIIId de M	?we don't need an M
135	that's on M	. We don't hood an in
136	that's an M	*yeah, but we don't need an M
137		?no M in Nathaniel
138		mo willinathanier
	(puts down M)	***********
139		*that's right
140		?we need an H
141		?find an H
142	dere's de H dere's de H	
143		*there's an H
144		*can you put the H right next to the T?
	(does so)	
145	-	*very good
146		?now we need another A, and that's a
		problem cuz we don't have another A
147		?but you know what we always use for th
148	eh use de N eh de dat	
148	en use de N en de dat	*no, we use a little triangle for an A
		?okay, now we need another N
150		?see another?
151	N	(See another)
152	see another N	*ana anathar NO
153		*see another N? *look in your desk
154		TOOK ID VOUR GOOK

Continued on next page

TABLE 2-- Continued

Line	Nathaniel	Mother
155	see another N either	
156		*well I think there's one if you look around
157		*look in your desk
158	this uh there's another N	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
159		*there's an N
160		okay, you put that right next to the A over here
	(does so)	
161		*that's right
162		?then we have the I, and we need the E right there
163	I need the other E	
164		*oh, you've got the E right there
165		*stick it right up between the I and the I
166	there's the other E	
137		*yeah, there's an orange E
168		*put that right up there next to the I
169		*turn it around the right way
170	upside up	,
171		+ upside up
172		?there
173	enne enne need the P	
174		?no, we don't need the P
175		?look, what does that say?
176	that say Nathaniel	
177		*that says Nathaniel
178	enne put the put the M on it	
179		?no, if you put the end on the M (sic) it says Nathanielm and that's sort of silly
180		?okay, we just put these up, and then we close the desk and go to sleep

Note: + Semantically contingent response

* Semantically contingent response to a literacy-related behavior or utterance

? Utterance in which semantic contingency is unclear

Dore's system, positive nonaccountability (or play) is the term given to the case where the mother follows the child's lead; and positive accountability (or teaching) refers to situations such as those in Table 2 where the mother demands that a task be completed. Such cases of positive accountability are also frequent in language-facilitating situations. Examples include a mother's refusing to answer her children's questions if she feels they know the answers, or demanding their most correct pronunciation of some word rather than a baby-talk form. Ninio and Bruner (1978) have referred to such behavior as "upping the ante," or requiring the most sophisticated behavior the child is capable of giving. Examples of such accountability procedures in Table 2 are the mother's insistence that Nathaniel find the L (lines 10 through 70); her demand after they succeed in finding and placing the L, L, and L that he read the letters to spell Lia (lines 88, 90); and her general unwillingness to let Nathaniel divert from the tasks of spelling Lia and Nathaniel.

These examples demonstrate that the three characteristics of adult-child interaction which facilitate language development -semantic contingency, scaffolding, and accountability procedures - are also characteristic of interactions around literacy ma-

teriais and activities. It is obvious that such characteristics can also contribute to the development of literacy skill.

Increasing Decontextualization

A well-documented aspect of language acquisition is children's initial limitation to talk ing about the concrete here-and-now, and the growth of their ability to discuss the re mote and the abstract. Early utterances can be described as highly contextualized, both from the point of view of the child and from the point of view of the observer, who can not make sense of the utterances without knowing the context in which they were ut tered. Many different aspects of language development demonstrate increasing free $dom\ from\ context;\ for\ example;\ (1)\ early\ words\ are\ used\ performatively\ (brm-brm\ while$ moving a car) or socially (hi and bye-bye), but later words can be used referentially as well, in order to talk about experience as well as to share experience (Nelson, 1981); (2) early utterances comment on physically present objects or current activities, and only later can children understand or make reference to absent objects or to past and future activities (Chapman, 1981); (3) early conversational competence relies on a familiar conversational partner who will ask the expected questions and give the expected an swers, whereas older children can converse about familiar things with unfamiliar part ners (Snow, 1978); and (4) young children often assume shared knowledge in their con versation, whereas later they can estimate what the listener is unlikely to know (Scollon & Scollon, 1982). All of these changes constitute decreasing reliance on the present or the historical context of interaction.

Full-blown adult literacy is the ultimate decontextualized skill. Even during the pre school years, children show a development from highly contextualized literacy skills to relatively decontextualized ones. For example, in addition to his own name the first words that Nathaniel could read were Michigan and Go Blue (printed on a football jersey which he wore frequently), I Love NY (printed on a t-shirt he was given as a present), and Puerto Rico (printed on a sweatshirt he wore). These words are not all phonetically simple or easily decodable, but their degree of contextualization supported their read ability. Similarly, Nathaniel's early attempts to write or spell words all involved his own name or the names of good friends and favorite babysitters. Many examples are given in Mason's paper (Note 3) of the highly contextualized reading that young children do-Stop and Shop on the supermarket's sign, Cheerios on the cereal box, and Gulf at the gas station. Mason identifies contextualized print recognition as the first strand in prereading development. Moving from such highly contextualized reading (which many would deny is truly reading) to relatively decontextualized reading, such as reading words in isolation or reading sentences in a book where the pictures cannot be mapped easily to elements within the text, involves a real transition.

Context is usually thought of as physical context; for example, a particularly salient visual display or encountering a particular word always in the same place. For the very young child the physical context is no doubt the most important support for language or literacy skill. Another important aspect of context, though, and one which becomes very useful to the child as young as two years old, is the "historical" context. By this I mean children's previous experience with some event, place, word, or text, which can support their current interpretation or reaction. Nathaniel's hypothesis in Table 2 (line 9) that "Lia starts with an N" is clearly a product of his previous experience in this same situa-

tion, spelling *Nathaniel*. Reading *Winnie-the-Pooh* cannot be a physically contextualized experience in the same sense that reading *Gulf* on the gas station sign can be, but it can be historically contextualized if the child has heard the book read aloud many times before trying to read it himself. Memory provides the context that the physical environment cannot.

Other books popular with children do provide a physical context which can, in combination with the experience of being read to, support word reading. The Dr. Seuss books, for example, often provide a few graphically salient displays (so so so so printed diagonally across the page in *The Cat in the Hat*, 1956; Sam I am printed on the sign carried by Sam in Green Eggs and Ham, 1960) that identify the word physically. The first picture-word books, with single words printed under easily identifiable pictures, have the same effect. In these cases, historical context is much less necessary to the reading of the words; for most books, though, even the ones designed for very young children, the historical context of words is probably of much more help than the physical context in supporting reading.

Clearly, the young child would prefer a world in which print was contextualized, predictable, and nonarbitrary. Table 3 presents an example of Nathaniel's presumption at 31 months that print would be both contextualized and nonarbitrary. He often played with a toy cargo truck on which was printed KLM. This toy was commonly referred to as the "airport truck." He recognized the print on the side of the truck as a word and could at this age read the letters K, L, and M; but he concluded nonetheless that the word on the truck could only be "airport truck." As his insistence reveals (see Table 3, lines 3, 5), he was firmly convinced that any writing on an object would be a label for that object—a conviction perhaps supported by his experience with cereal boxes and generic grocery labels, but one which probably emerged from a more general set of principles for dealing with the world.

TABLE 3
Nathaniel's Presumption that Literacy is Contextualized (31 months)

Line	Nathaniel	Mother
	(pointing to KLM on toy truck)	
1	that say airport truck	
2	• •	no, that says KLM
	(insistently)	•
3	that says de airport truck	
4	, .	KLM cargo
	(more insistently)	•
5	that says airport truck	
		(patiently)
6		in the airport the trucks have to carry the cargo from the planes to other planes, or into the city and that's what this truck does
	(pointing to KLM)	
7	who's this	
8		where
9	that says de airport	
	,	(interrupting)
10		KLM, Nathaniel, this says KLM

An example of Nathaniel's increasing recognition of the existence of decontextualized text emerges from longitudinal analyses of his readings of one book (Scarry's *The Storybook Dictionary*. 1964) over the course of a year (Snow & Goldfield, 1982 and in press). In the early sessions, Nathaniel and his mother discussed the pictures and, through their conversations, jointly developed complex information structures about the characters and events. At 40 months Nathaniel started to resist conversing about the pictures. Rather than selecting a picture by pointing to it and asking a question about it, he pointed to the text and said, "Read this one." Although it was still possible to get him involved in a conversation about the pictures at 40 months, shortly thereafter he became quite insistent that he be read to out of this book and all others. He would still occasionally discuss the pictures but only after hearing the text.

The Role of Routines

Although responsiveness and semantic contingency are the aspects of parent-child interaction that are recognized facilitators of language development, another aspect of interaction which also contributes to language acquisition is parental use of routines (see Peters, in press; Snow, in press; Snow, deBiauw, & Dubber, 1982). Bruner refers to such routines as *formats* (in press; Note 4) emphasizing the fact that they are neither rigid nor unexpandable, but are highly predictable and thus constitute ideal contexts for language acquisition.

Such routinized or formatted contexts could also contribute to literacy acquisition; in fact, the most studied format for language learning is book reading (Ninio, 1980a, 1980b; Ninio & Bruner, 1978; Snow & Goldfield, 1982; and in press) which can be seen to contribute to language and to literacy simultaneously. Book reading routines constitute occasions for vocabulary acquisition (Ninio, 1980b), for the acquisition of bookhandling skills (Mason, Note 3), for the discovery of print, for the recognition of words, and for the development of a story scheme which could ultimately contribute to reading comprehension (Snow & Goldfield, 1982).

A prime example of the exploitation of a format is given by traditional ABC books, with their standard, "A is for a--- B is for b---" form; their use of simple pictures corresponding to the least predictable item in the format; and their reliance on such a well-learned sequence as the alphabet. Tables 4 and 5 present excerpts from two sessions, two weeks apart, using two ABC books with Nathaniel. Comparisons of these conversations reveal how much he had learned about the format of ABC books in this short time, even though the particular book used at the later reading was unfamiliar to him. At 32 months, 4 days (Table 4) he treated the first ABC book much like any other book, identifying a picture or a letter when he could and talking about the pictures with his mother. By 32 months, 20 days (Table 5), Nathaniel had learned the "X is for X-word" format, as indicated even more clearly by his errors (lines 22, 27, 94) than by his correct use of the format.

Another effective exploitation of formats is exemplified by the Dr. Seuss books which use rhyme, rhythm, and nonsense words in ways that facilitate rote memorization. Rote learning of a text, with subsequent matching of the rote-learned sequences to the visual display, is an effective way to learn to read—a method discovered spontaneously by some children in this society and used as the major pedagogical method in the Koranic schools of the Arab world (Wagner & Lofti, Note 5). Table 6 exemplifies the relatively

Literacy Language

TABLE 4
Nathaniel (32 months, 4 days) and his Mother Reading an ABC Book

Line	Nathaniel	Mother
1	wanna read dat dat book dis book	
2		wanna read that book?
3		okay
4	read dis dat book	
5		this is a Christmas book
6	ABC book	
7		that's an ABC book
		how did you know that?
8	dat's a present	
9		where's it say ABC?
10	dis eh A	,
11	dat's a present	
12	sat o a procent	yeah, it was a present a long time ago
13	as a present day	,, that a process a long time ago
14	as a procent day	this says A is for angel
15		B is for bell
16		C is for candle and carol as well
17		D is for
18	donkey	D 13 101
19	dolikey	E is for elf
20		F is for fun
21		filling Christmas itself
22		G is for gifts
23		what's a gift?
24	dat's a gift	what's a gift?
25	dat s a gift	aitta ann tha anns thinn an anns ta
25		gifts are the same thing as presents,
00	-14	Nathaniel
26	gifts are the same thing as present	2-11-20
27		right, gifts and presents are
00		the same thing
28		H is for holly
29	h - P 1	I is for ice cream
30	eh dis a l	
31	I for ice cream	
32		which is the I?
33	dis is de l	
34		ı
35	E	
36		no that's an I
37	dat's a l	
38		and that's a little I
39	dat's a little l	
40	dis is E dis is de litt!e l	
41		no this is a big I a big I

early stages of such rote learning and the changes over a short time, as revealed in Nathaniel's readings of *Hop on Pop* (Scuss, 1963) at 37 months, 6 days and 37 months, 26 days. During the earliest readings of this book, Nathaniel's contribution had been primarily imitative. At 37 months, 6 days he mixed imitation and memorized bits. Twenty days later, his contributions suggested that he had memorized a rather large portion of the book.

At the age of 5 years, 7 months, Nathaniel, who by this time had developed considerable decoding skills, was observed to read books of nursery rhymes and poems by

TABLE 5 Nathaniel (32 months, 20 days) and his Mother Reading an ABC book

1 2 3 4 5 6 7 8	how 'bout dis book? how 'bout de banana wanna read dat wanna read	how 'bout this book?
3 4 5 6 7 8	wanna read dat wanna read	UOM DOMETHIS DOOK:
4 5 6 7 8	wanna read dat wanna read	
5 6 7 8		
6 7 8		
7 8	how 'bout dat book?	how 'bout that book?
8		this is an ABC book
		this is all ADO Book
9	eh eh dis eh banana	that's right
		that's right
10		and what's this?
11	das da dat's a banana peels	the alle the D for
12		that's the B for
13	dat's a banana	D. Combination
14		B for banana
15	B for banana	
16		A for apple
17	A for apple	
18		C for cup
19	C for cup	
20		what's that say?
21	det	
22	C for plate	
23	,	(laughing) no it's P for plate
24	P for plate	
25	C	
26	· ·	C for
27	A for plate	
28	, troi prate	A for apple
29	A for apple	
30	dis eh banana	
	uis en banana	that's right
31		B for banana
32	B for banana	
33	B for pariana	what else begins with B?
34	h Dás	
35	b B for	bagel
36	B (-1)	bugo
37	B for bagel	
38	where's eh bagel?	we don't have a picture of a bagel
39		C for cup
40		C for coffee
41	0.01	0 101 001100
42	c for de C C for coffee	E for egg
43		L for egg
44	E for egg	G for
45		a for
46	G for uh	those what are those?
47		mose what are mose:
48	grapes	right
49		grapes, right
50	four	E for form
51		F for four
52		that's right
53	hamburger	
54		hamburger, right
55	ice cream	
56		ice cream Continued on next p

TABLE 5—Continued

Line	Nathaniel	Mother
57		what's this?
58	wha deh?	
59		I think that's lollipop
60	one two three	
61	4	three
62	dese are light en put up deh	
63	who dat?	
64		that's a kettle for the tea
65 66	what it is	to make tea
67	what dat?	
68	milk	what's that?
69	шк	
70		milk, yes
71	M for milk	M for milk
72	W TOT TITIK	N for
73	dis eh nut en walnut	IV TOT
74	dis en nat en wantat	a walnut, right
75		o for
76	O for	0.101
77	ah ah	
78		orange
79	orange	orango
80		P for
81	P for plate	
82	•	right
83		Q for
84	for	
85		quince
86	quince	·
87		R for
88	for	
89		raspberry
90	raspberry	
91		S for
92	S for spoon	
93		T for
94	T for apple	
95		tomato
96 97	tomato	
98	dis eh dis?	
99		that's a cake
100	upside down	that's an upside down cake
101	eh book upside down	
101	en book upside down	11 1
102		(laughing)
103		oh no it doesn't mean
. 50		you don't have to turn the book upside
104		down well never mind
		wen never mind

scanning the pictures until he found a rhyme he knew by heart then reading those rhymes by sounding them out. He was quite capable of sounding out unfamiliar rhymes or of reciting the memorized ones fluently without any decoding, but chose to apply his decoding skills to familiar texts instead.

TABLE 6
Nathaniel's Development of Knowledge about a Single Text

Printed Text	Conversation at 37 months, 6 days	Conversation at 37 months, 26 days
	M : what is this book called?	
	N : steppin' an on	
	dis one	
	step onnn	
	step on	
	M : it's called hop on	
	N: hop on top	N : eh I wanna read hop on top
Hop on Pop	M : hop on pop	
	by	M : hop on pop
	N : by	by
by Dr. Seuss	M: Doctor	N : Doctor Seuss
~,	N : Seuss	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
PAT PAT	M : Pat pat	M : Pat pat
They call him Pat.	they call him	they call him pat
They call fillifrat.	N : Pat	,
PAT SAT	M : Pat sat	Pat sat
	Pat sat on a	Pat sat on
Pat sat on hat.	N : hat	N : the hat
	M: this is a	14. (110 1101
	N : hat	
DAT CAT	M : Pat cat	M : Pat cat
PAT CAT	Pat sat on a	Pat sat on
Pat sat on cat.		N : a cat
	N : cat	M : Pat bat
PAT BAT	M : Pat bat	Pat sat on
Pat sat on bat.	Pat sat on a	r at sat on
	N : cat	N : a bat
	M:bat	N . a bat
	N: bat	M : no Pat no
NO PAT NO	M : no Pat no	N : he sayin' no?
	don't	M : that's right
		he's saying no Pat no, don't
	At the second second	N : sit on that
Don't sit on that.	N : sit on that	M: thing thing
THING THING	M: thing	W. tillig thing
	N: thing	what is that thing?
What is that thing?	M: what is that	what is that thing:
	N: thing	thing sing
THING SING	M: thing sing	that thing can sing
That thing can sing!	that thing can	that thing can sing
	N: sing	song long
SONG LONG	M : song	song long
	N: song	
	M:long	
	N : long	a long long cong
A long, long song.	M : A long long song	a long long song
	N : song long song	good by Thing
Good-by, Thing.	M : good-by Thing	good-by Thing
You sing too long.	you sing too	No year sing too long
	N : too long	N : you sing too long
FATHER MOTHER	M: father mother sister	A China and Change to the
SISTER BROTHER	N : brother	M: father mother sister brother
That one is	M: that one is	that one
	Al Alban breakban	N: my other brother
my other brother.	N: my other brother	it in your bround

TABLE 6—Continued

Printed Text	Conversation at 37 months, 6 days	Conversation at 37 months, 26 days
My brothers read a little bit. Little words like if and it.	M : my brothers read a little bit little words like N : it M : and N : hit	M : my brothers read a little bit little words like N : bit and it
My father can read big words, too.	M : my father can read big words too	M : my father can read big words too
Like CONSTANTINOPLE and TIMBUKTU	N: like M: Constantinople N: Constantinople M: and N: and M: Tim N: Tim M: buk N: too	N : like Consandople and Timbuctoc

Note: M = mother; N = Nathaniel.

Summary

The acquisition of language and of literacy can be seen to be very similar to one another on a number of points: the complexity of the learning involved, the centrality of communicative needs to the early stages of acquisition, the nature of the social interactive factors that contribute to acquisition and the child's increasing ability to perform the tasks required without the support of social, physical, or historical context.

Dissimilarities in the Development of Language and Literacy

Whereas the similarities between language and literacy acquisition are impressive, there are several points of dissimilarity as well. These will be discussed in this section and analyzed to determine if they constitute true or apparent differences.

Teaching versus Learning

The most striking difference between the acquisition of language and the acquisition of reading is that the first occurs naturally whereas the second relies on formal instruction. This difference holds for the vast majority of children but constitutes a statistical rather than an absolute difference. Some children learn to read more or less on their own (for example, Durkin, 1966), at least without formal school instruction. I have argued that language acquisition, seemingly natural, is supported by patterns of interaction with adults which, if analyzed carefully, tend to be quite pedagogical. Thus, although most children are taught to read, the fact that some learn without formal instruction from precisely the same kinds of interactions that support language acquisition suggests a greater similarity than dissimilarity between the processes on this point.

Universal Success versus High Risk for Failure

All children, barring extreme deprivation or organic damage, learn to talk; but a significant number of children, even those whose intelligence is in the normal or above-average range, fail at or have great difficulty in learning to read. The universal success of language acquisition is, of course, related to the fact that language need not be taught

whereas literacy acquisition, a riskier venture, requires instruction. One explanation given for this difference is that literacy skills rely on higher metalinguistic functions than do language. The status of this distinction between literacy and language will be discussed further; here I will only outline the problem by making the distinction in this way: while it is true to say that most children learn to talk without explicit instruction, the language skills achieved naturally by children constitute the highly contextualized skills of communication, not the decontextualized uses of language such as presenting monologues, doing abstract verbal reasoning, and giving metalinguistic judgments.³

Reading and writing as normally used in school are two examples of decontextualized language use, and we might therefore expect considerable variability in the speed and ease with which they are acquired. An example of decontextualized language in the purely oral mode is giving metalinguistic judgments; for example, judging sentences as grammatical or ungrammatical, identifying ambiguity, and giving definitions. This is also an area in which enormous individual differences in ability are found, differences which correlate furthermore with educational level (Gleitman & Gleitman, 1970). This finding supports the suggestion (Scribner, 1977) that the process of education consists largely of training in decontextualized language use.

I would argue that the existence of individual differences in literacy skills does not differentiate literacy from language. Rather, any skill which must be acquired or plied in a decontextualized way—whether that be reading, writing, talking, or listening—will be difficult, require some instruction, and show individual differences. By their very nature, most literacy experiences are somewhat decontextualized. By the nature of Western schooling, most of our children's literacy experiences are highly decontextualized. If we were to compare moderately decontextualized literacy skills with equally decontextualized language skills, I predict we would find them to be of the same level of difficulty.

Role of Practice in Acquisition

Basic tenets of reading and writing curricula are that practice makes perfect and that achieving higher levels of skill, especially for reading, requires having achieved a minimum speed and fluency at earlier levels through practice. Practice has never been suggested as a major factor influencing the speed of first-language acquisition, though it certainly can be demonstrated to have a positive effect on second language learning. Recent evidence, however, suggests that, at least at the level of articulatory skill and sentence production planning, children get better partly as a product of practice with talking. Here again, then, an apparent difference may be illusory.

Imposition of Conventionality

Conventions, the "right way to do it," are important both in oral and in literate exchanges. Violations of conventions, such as using nonstandard speech forms or making spelling errors, reflect badly on the user, at least in some circumstances. Observing conventions in print is, however, more important to successful communication than in oral

³ A related point has been made in the domain of second-language learning by Cummins (1979a, 1979b), who distinguishes between Basic Interpersonal Communicative Skill, acquired relatively quickly by most second-language learners, and Cognitive-Academic Linguistic Potential, required for academic success and acquired much more slowly.

exchanges, partly because of print's greater decontextualization. Following the conventions helps to ensure effective communication even in situations where communicative repair is not possible. Face-to-face exchanges do not break down if an unconventional form is used because a speaker's meaning can be questioned and clarified. Defying convention in written communication is much riskier because one's communicative partner is at a distance and unavailable for checks and confirmation.

Purely conventional forms are infrequently required of young speakers though "May I please be excused?" and other such formulas are certainly not absent from their repertoires (see Gleason, Perlmann, & Greif, Note 6), despite the fact that children seem to have an expectation that rote-learned utterances will be appropriate ways of dealing with certain communicative situations (see Snow, in press). Reading and writing require conventional forms from the very start though children who do spontaneous spelling are freed from even this demand. Interestingly, children who are more advanced in their understanding of the nature of literacy may well resist nonconventional spelling—they know that "there is a right way to spell it" and do not want to produce their own, incorrect forms (Giacobbe, Note 7). For example, though Nathaniel at 4 years could be forced to provide his own spellings, he preferred to copy or be told how to spell things and asked after each letter in a spontaneously spelled word if it were correct. Part of his unwillingness to do spontaneous spelling derived from his knowledge of the arbitrariness of English spelling—he knew that he could not be sure, for example, if a C or an S spelled an /s/, if C or K was needed for /k/, or if EA, EE or IE was appropriate for /i/.

Nathaniel's interpretation of literacy tasks as ones where the conventions must be followed was also evident in the development of his book-reading routine with his mother. Although at 30 to 35 months he gladly discussed the pictures in the books being read, at about 3 years he discovered the text and reinterpreted "reading books" as "being read to." He became increasingly insistent on this as the correct book-reading activity and impatient with his mother's attempts to discuss the pictures.

It may thus be the case that the power of the convention is first discovered by many children in the context of literacy tasks rather than for oral language, though this difference between language and literacy acquistion is one of degree. The degree of difficulty most children have when asked to call a cow "ink" (Piaget, 1954) demonstrates their natural commitment to the notion that words are conventional. It would be surprising, then, if they had any particular difficulty with understanding this fact about written language.

Summary

The differences between language and literacy are differences more of degree than of absolutes. Reading requires more explicit teaching, is more susceptible to failure, may be more dependent on practice, and may be more limited by conventions. Nevertheless, none of these characteristics is entirely untrue of language during the early stages of its acquisition. Indeed, the more decontextualized the oral language task, the more these characteristics apply.

Literacy in the Home

This review of the similarities and differences between language and literacy in the early

stages of their development provides a picture of enormous similarity on several points and differences of degree rather than of kind. We are left, then, with the troublesome questions with which we began. Why do some children have so much trouble learning to read? If learning to read is supported by the same sorts of interactions which support language development and if all children learn to talk, we should expect that all will learn to read as well.

One answer which has been offered to this question is to invoke the degree of "liter acy" of children's home cultures as a determining variable in their acquisition of school literacy. Middle-class homes in which books are present familiarize children with the purpose of books and ways to use them, thus providing school-relevant skills very di rectly. However, recent studies of low-income preschool children (Heath, 1982; Miller, 1982) suggest that some of these children have considerable access to and experience with books. In fact, very low-income children studied in South Baltimore were socialized for school in quite direct and explicit ways by their mothers (Miller, Nemoianu, & De-Jong, Note 8). Thus, simple access to literacy materials probably does not explain the large differences between middle-class and working-class children in reading achieve ment. It has been argued, though, that in addition to experience with books, middleclass homes prepare children for written forms of literacy by providing literate features in oral discourse: that is, by telling or reading stories in which the author is impersonal, the setting is distanced, deictic contrasts have to be understood from the writer's or speaker's point of view, and relatively complex language forms are used. Such features show up in very young middle-class children's own oral stories (Scollon & Scollon, 1982) long before they learn to read or write.

Another feature of literate interaction in middle-class homes is the use of conversation to build "shared histories" between mother and child. The mother asks the child questions about past, shared events, thus providing the child with help in recounting and in building internal representations of those events (Schieffelin & Eisenberg, in press). Such establishment of shared, permanent histories is characteristic of the "literate" approach to information as stable and enduring, rather than the "oral" approach in which shared representations are reconstructed as needed. Since information is not made permanent by being written down in oral cultures, it does not endure except as synopsized by epigrams and proverbs.

Even classroom teachers have been described as giving children an "oral preparation for literacy" in the form of sharing time (Michaels & Cook-Gumperz, 1979). Children are expected, during their sharing turns, to present information in much the same way it would be presented in a well-written paragraph: assume no prior knowledge on the part of the listener, present the topic in a topic sentence, include only information relevant to that topic in subsequent sentences, and be explicit. Children's difficulty in following these rules demonstrates how foreign the rules are to normal conversational exchange in which the listener and the speaker share considerable knowledge. High levels of explicitness in face-to-face interactions often constitute redundancy with information available from the nonverbal context.

The Oral and the Literate: Separate Domains

The argument that some homes prepare children for literacy by giving them experience

with "literate" oral discourse flirts with terminological confusion and obscures the nature of the experiences that are crucial to preparing children for literacy. The characteristics of oral discourse that have been identified as potentially facilitative for literacy are distance between sender and receiver, explicitness of reference, fictionalization of sender and of receiver, complexity of syntactic structures, permanency of information, autonomous rather than interactive establishment of truth, and high degree of cohesion (Tannen, 1982). These are the characteristics of decontextualized language use. Literacy is normally decontextualized, and literate activities normally show these features. But if oral discourse can have these characteristics and be used in a decontextualized way, so too can literate activities be context-bound. Prime examples of contextualized literacy are given by Scribner and Cole (1981) from their study of Vai literacy. Vaiscript literates use their literacy skills primarily for two activities: writing letters intended for one reader and keeping personal diaries. Both of these uses of literacy are relatively contextualized because they rely on shared information between writer and reader.

Consider the literacy of the preschool child. The first part of this paper presented many examples of highly contextualized literacy skills—reading the words on shirts and cereal boxes, reading one's own name, reading well-memorized rhymes in a book. Somewhat older children's abilities to deal with tasks such as reading a note taped on the refrigerator, finding favorite programs listed in *TV Guide*, or selecting lunch from the menu at Burger King (see Bloome, 1981) similarly constitute positive evidence of children's ability to deal with literacy but no evidence about their ability to deal with decontextualized information.

Perhaps most children are not failing at reading and writing but at comprehending and producing decontextualized information. Cox and Sulzby (Note 9) have found a relationship between skills at producing monologues (one-person narratives and descriptions) and reading ability in kindergarteners and have hypothesized a direct connection between monologue skills and literacy skills. I suggest that they found this relationship because the reading tasks they used as an outcome measure conflate two sets of abilities—the strictly literate abilities involved in decoding and comprehending print and the decontextualization skills involved in using language without the support of conversational context.

By about fourth grade, many school literacy activities are highly decontextualized. Children are no longer asked just to fill in worksheets or read from books with pictures but are expected to read from textbooks and write clear paragraphs. Thus, the basic reason for children's failure in the middle grades may not be the difficulty of literacy but the problems associated with decontextualizing language use. It is clear that the academically successful twelve- or thirteen-year-old must have mastered skills of literacy and of decontextualization. These skills are at least theoretically separable, and Scribner and Cole's finding that literacy and schooling have differential effects on cognitive skills suggest that they are practically separable as well. Further, success at either set of skills can be related to experiences during the preschool years. It seems likely, though, that different sets of preschool experiences contribute to literacy skill and to skill in decontextualized language use.

Much research remains to be done in order to test the hypothesis that the development of literacy skills and of skills at decontextualized language use emerge from different ontogenetic roots. As difficult as these skills are to distinguish from one another in testing or in school performance, the interactive situations that facilitate their acquisition may be even more difficult to separate.

It is clear, though, that many of the experiences identified as contributing to preschool children's literacy development (such as, being told stories, being read to, receiving help in constructing descriptions of past events, being asked tutorial questions) contribute more to their ability to use language in a decontextualized, and even noncommunicative, way than to their literacy skills per se. The teaching built into "Sesame Street," "The Electric Company," and many prereading curricula, in contrast, provides hardly at all for skills of decontextualized language use. Children need both literacy and decontextualized language skills to succeed in school; but it may be that literacy skills are simple enough to be acquired at school, whereas developing the skill of using language in a decontextualized way relies more heavily on experiences only home can provide.

Reference Notes

- Shuy, R. W. Relating research on oral language function to research on written discourse. Paper presented at the meeting of the American Educational Research Association, Los Angeles, April, 1981.
- 2. Farr, M. Learning to write English. Paper presented at the meeting of the American Educational Research Association, New York, March, 1982.
- 3. Mason, J. The acquisition of knowledge about reading: The preschool period. Paper presented at the meeting of the American Educational Research Association, New York, March, 1982.
- 4. Bruner, J. S. *The social context of language acquisition*. Keynote address, Sixth Annual Boston University Conference on Language Development, October, 1981.
- Wagner, D., & Lofti, A. Traditional Quranic education in contemporary Morocco. Unpublished manuscript, University of Pennsylvania, 1979.
- 6. Gleason, J. Berko, Perlmann, R., & Greif, E. What's the magic word?: Learning language through politeness routines. Paper presented at the meeting of the Southeast Regional Conference on Human Development, Alexandria, Va., April, 1980.
- 7. Giacobbe, M. E. Personal communication, December, 1982.
- 8. Miller, P., Nemoianu, A., & DeJong, J. Early socialization for schooling in a working class community. Paper presented at the Ethnography in Education Research Forum, University of Pennsylvania, March, 1981.
- 9. Cox, B., & Sulzby, E. Evidence of planning in dialogue and monologue by five-year-old emer gent readers. Unpublished manuscript, Northwestern University, 1982.

References

- Anastasiow, N., Hanes, M. L., & Hanes, M. Language and reading strategies for poverty children Baltimore: University Park Press, 1982.
- Bannatyne, A. D. Language, reading and learning disabilities. Springfield, Ill.: Thomas, 1971. Bloome, D. An ethnographic approach to the study of reading activities among black junior high school students: A socio-linguistic ethnography. Unpublished thesis, Kent State University, 1981.
- Bruner, J. S. Learning how to do things with words. In J. S. Bruner and R. A. Garton (Eds.), Hu man growth and development. Oxford, U.K.: Oxford University Press, 1978.
- Bruner, J. S. The acquisition of pragmatic commitments. In R. Golinkoff (Ed.), *The transition from prelinguistic to linguistic communication*. Hillsdale, N.J.: Erlbaum, in press.
- Carnoy, M. Is compensatory education possible? In M. Carnoy (Ed.), Schooling in a corporate so ciety: The political economy of education in America. New York: McKay, 1972.

^{*}Sec review of *The Psychology of Literacy* (Scribner & Cole, 1981) in this issue by Greenfield pp. 216–220. ED.

- Cazden, C. Literacy in school contexts. In Proceedings of the International Symposium on New Perspectives on the Processes of Reading and Writing. Mexico City: Editorial, Siglo XXI, in press.
- Chapman, R. Cognitive development and language: Comprehension in 10 to 21 month olds. In R. Stark (Ed.), Language behavior in infancy to early childhood. New York: Elsevier, 1981.
- Clark, M. Young fluent readers. London: Heinemann, 1976.
- Coleman, J., Campbell, F., Hobson, C., McPartland, J., Mood, A., Weinfeld, F., & York, R. Equality of educational opportunity. Washington, D.C.: U.S. Government Printing Office, 1966.
- Cross, T. G. Mother's speech and its association with rate of linguistic development in young children. In N. Waterson & C. Snow (Eds.), The development of communication. London: Wiley, 1978.
- Cummins, J. Cognitive academic language proficiency, linguistic interdependence, the optimum age question, and some other matters (Working Papers in Bilingualism, No. 19). Toronto: Ontario Institute for Studies in Education, November 1979. (a)
- Cummins, J. Linguistic interdependence and the educational development of bilingual children. Review of Educational Research, 1979, 49, 222–251. (b)
- Dale, E., & Chall, J. Readability. New York: McGraw-Hill, in press.
- Davis, F. B. Fundamental factors of comprehension in reading. Psychometrika, 1974, 9, 185-197.
- DeStefano, J. Language: The learner and the school. New York: Wiley, 1978.
- Dittmar, N. Sociolinguistics. London: Edward Arnold, 1976.
- Dore, J. Intentionality, accountability, and play: The intersubjective basis for language development. In R. Golinkoff (Ed.), *The transition from prelinguistic to linguistic communication*. Hillsdale, N.J.: Erlbaum, in press.
- Durkin, D. Children who read early. New York: Teachers College Press, 1966.
- Edwards, A. E. Language in culture and class. London: Heinemann, 1976.
- Farr, R. Reading What can be measured. Newark, Del.: International Reading Association, 1969.
- Gleitman, L., & Gleitman, H. Phrase and paraphrase. New York: Norton, 1970.
- Heath, S. B. The functions and uses of literacy: Literacy in a media world. Journal of Communication, 1980, 30, 123–133.
- Heath, S. B. What no bedtime story means: Narratives at home and school. *Language in Society*, 1982, 11, 49-78.
- Kennedy, M. Findings from the Follow Through planned variation study. *Educational Researcher*, 1978, 7, 3–11.
- Lazar, I., & Darlington, R. Lasting effects of early education: A report from the consortium for longitudinal studies. Monographs of the Society for Research in Child Development, 1982, 47 (2–3, Serial No. 195).
- Loban, W. The language of elementary school children (Research Report No. 1). Urbana, Ill.: National Council of Teachers of English, 1963.
- Menyuk, P., & Flood, J. Language development, reading/writing problems, and remediation. Orton Society Bulletin, 1981, 31, 13-28.
- Michaels, S., & Cook-Gumperz, J. A study of sharing time with first grade students: Discourse narrative in the classroom. Proceedings of the Fifth Annual Meeting of the Berkeley Linguistics Society, 1979, 5, 647–660.
- Miller, P. Amy, Wendy and Beth: Learning language in South Baltimore. Austin: University of Texas Press, 1982.
- Nelson, K. Acquisition of words by first-language learners. In H. Winitz (Ed.), *Native language and foreign language acquisition*. New York: New York Academy of Sciences, 1981.
- Ninio, A. Picture book reading in mother-infant dyads belonging to two subgroups in Israel. *Child Development*, 1980, 51, 587–590. (a)
- Ninio, A. The ostensive definition in vocabulary teaching. *Journal of Child Language*, 1980, 7, 563–573. (b)
- Ninio, A., & Bruner, J. The achievement and antecedents of labelling. Journal of Child Language, 1978, 5, 1–15.

- Olson, D. From utterance to text: The bias of language in speech and writing. *Harvard Educational Review*, 1977, 47, 257–281.
- Peters, A. The units of language acquisition. New York and Cambridge, U.K: Cambridge University Press, in press.
- Piaget, J. The construction of reality in the child. New York: Basic Books, 1954.
- Rivlin, A. M., & Timpane, P. M. (Eds.). Planned variation in education: Should we give up or try harder? Washington, D.C.: Brookings Institution, 1975.
- Salus, M. The syntax and metalinguistic skills of children who read early. Unpublished doctoral dissertation, Boston University, 1982.
- Scarry, R. The storybook dictionary. London: Hamlyn, 1964.
- Schieffelin, B., & Eisenberg, A. Cultural variation in dialogue. In R. Schiefelbusch (Ed.), Communicative competence: Acquisition and intervention. Baltimore: University Park Press, in press.
- Scollon, R., & Scollon, S. Narrative, literacy and face in interethnic communications. Norwood, N.J.: Ablex, 1982.
- Scribner, S. Modes of thinking and ways of speaking: Culture and logic reconsidered. In P. Johnson-Laird & P. Wason (Eds.), *Thinking: Readings in cognitive science*. New York and Cambridge, U.K.: Cambridge University Press, 1977.
- Scribner, S., & Cole, M. The psychology of literacy. Cambridge, Mass.: Harvard University Press, 1981.
- Seuss, Dr. [T. Geisel]. The cat in the hat. New York: Random House Beginner Books, 1956.
- Seuss, Dr. [T. Geisel]. Green eggs and ham. New York: Random House Beginner Books, 1960.
- Seuss, Dr. [T. Geisel]. Hop on pop. New York: Random House Beginner Books, 1963.
- Simons, H. D. The relationship between aspects of linguistic performance and reading comprehension. Unpublished doctoral dissertation, Harvard University, 1970.
- Snow, C. The conversational context of language acquisition. In R. Campbell & P. Smith (Eds.). Recent advances in the psychology of language: Social and interactional factors (Vol. 2). New York: Plenum, 1978.
- Snow, C. Saying it again: The role of expanded and deferred imitations in language acquisition. In K. E. Nelson (Ed.), *Children's language* (Vol. 4). New York: Gardner Press, in press.
- Snow, C., deBlauw, A., & Dubber, C. Routines in parent-child interaction. In L. Feagans & D. Farran (Eds.), The language of children reared in poverty. New York: Academic Press, 1982.
- Snow, C., & Goldfield, B. Building stories: The emergence of information structure from conversation and narrative. In D. Tannen (Ed.), *Analyzing discourse: Text and talk*. Washington, D.C.: Georgetown University Press, 1982.
- Snow, C., & Goldfield, B. Turn the page please: Situation specific language acquisition. *Journal of Child Language*, in press.
- Snow, C., & Hoefnagel-Höhle. The critical period for language acquisition: Evidence from second language learning. *Child Development*, 1978, **49**, 1114–1128.
- Söderbergh, R. Reading in early childhood: A linguistic study of a Swedish pre-school child's gradual acquisition of reading ability. Stockholm: Morssedt, 1971.
- Spearitt, D. Identification of subskills of reading comprehension by maximum likelihood factor analysis. *Reading Research Quarterly*, 1972, 8, 92-111.
- Stearns, M. S. Report on preschool programs: The effects of preschool programs on disadvantaged children and their parents. Washington, D.C.: U.S. Government Printing Office, 1971.
- Stubbs, M. Language and literacy: The sociolinguistics of reading and writing. London: Routledge & Kegan Paul, 1980.
- Tannen, D. (Ed.). Spoken and written language: Exploring orality and literacy. Norwood, N.J.: Ablex, 1982.
- Thorndike, R. Reading as reasoning. Reading Research Quarterly, 1974-75, 10, 135-147.
- Wells, G. Some antecedents of early educational achievement; Edinburgh: British Psychological Society, 1980.
- Yap, K.O. Vocabulary Building blocks of comprehension. Journal of Reading Behavior, 1979, 11, 49–59.