ABSTRACT
        Teacher verbal behaviors following oral reading
errors of primary grade children were the focus of this study. The
incidence, location, and type of verbal interruption behaviors that
occured during classroom reading instruction were contrasted for
high-and low-ability readers. Results for 20 teachers indicated that
they were more likely to interrupt poor readers than good readers who
erred when reading aloud. Further analyses indicated that the
location and type of teacher verbal behaviors differed as a function
of reading ability level. Additionally, good readers read over twice
as many words per lesson as did poor readers. (Author/AA)

ARE GOOD AND POOR READERS TAUGHT DIFFERENTLY?

IS THAT WHY POOR READERS ARE POOR READERS?

Richard L. Allington
Assistant Professor
Department of Reading
State University of New York at Albany
1400 Washington Avenue
Albany, NY 12222

Recent research on classrcom teaching practices and processes has
generated different answers to the first part of the question posed in
the title of this paper. For instance, Alpert (1974) found no differences
in the "good" verbal behaviors provided by teachers across ability groups
during reading instruction, where small differences did appear they seemed
to favor lower ability students. She also found no difference in the
amount of reading instructional time between groups nor in the number of
materials used. Brophy and Good (1970) also failed to find differences
in allocation of instructional time between ability groups.

On the other hand, Rist (1970) provided evidence of preferential
treatment of high ability children in one kindergarten classroom and
concluded that the children perceived as low ability would probably perform
to these expectations since they got the least amount of instructional
time. Brophy and Good (1970) found that high-ability students received
preferential treatment and were granted more autonomy than low-achievement
students. McDermott (1976), in another study of a single classroom,
found poor readers spent less time reading than good readers and
differential interaction patterns between the teacher and the different
groups -- differences which seemed to favor the good readers. He presents
some similar additional evidence in a more recent paper (1977). Good and
Brophy (1971, 1972) suggest that low-achievement students typically
receive less opportunities to respond than high-achievement students.
Archer (1977) argues that poor readers are less likely to be praised and
were less likely to be dealt with sympathetically than were good readers.
Duffy (1978) presents evidence that the content of instruction differs
between good and poor readers in some classrooms.

Several other researchers (Allington, 1977; Quirk, et al., 1975, 1976), while not directly comparing instruction of good and poor readers, provide data on current practices in compensatory reading programs which strongly suggest that differences exist between the instruction received by good and poor readers.

Finally, Weinstein (1976) found few interactional differences between the teacher and students from different ability groups during whole class instruction but noted that the teachers did act and react differently towards these same students when dealing with them in their reading groups. However, she reports that in reading groups, the good readers typically received fewer evaluative comments and were criticized more while the poor readers were more likely to be praised after correct responses and after oral reading performance.

Much of what seems to be basic disagreements in the data presented above can be accounted for by noting that the various investigators looked at, and for, different kinds of behaviors, in different types of settings, and generally with different instruments. Whether differences exist in the instruction provided good and poor readers depends then, on what aspects of the instructional environment are studied and whether one wishes to consider a single classroom or reading instruction generally.

While a number of studies (c.f. Brophy and Good, 1970; Brophy and Evertson, 1976) have examined teacher-pupil interactions during reading instruction on what might be considered a "surface" level (positive-negative, teacher vs. student initiated, etc.) fewer have focused specifically on the semantic content of these interactions. Alpert (1974)

generated a list of "good" verbal behaviors during reading lessons
through a process of expert consensual validation. Her "good" verbal
behaviors ranged from "praised reading" to "word family" and "question
all." Unfortunately, we have no comprehensive listing of effective
teacher verbal behaviors for reading instruction, though Clay (1972),
like Alpert, presents a list of comments elicited from teachers and
indicates which she prefers in particular situations. Brophy and
Evertson (1975, 1976) presented evidence that successful teachers did
not focus on minor inaccuracies but rather either pronounced a word for
a student or expanded a partial response quickly in order to move the
lesson along. They found directing attention to phonic cues correlated
well with learning in low SES schools, while having the student reread
the sentence, a focus on the semantic and syntactic cues, correlated
well with learning in the high SES schools.

Of particular interest in the present study is the semantic
content of teacher verbal behaviors during reading instruction and the
impact these comments have upon the development of reading ability. In
order to clarify whether differences existed in this aspect of the reading
instruction delivered to good and poor readers, the focus was narrowed
to teacher interruption behaviors during the oral reading segment of
reading instructional sessions. Though a focus on silent reading is
typically recommended, as opposed to oral reading (Harris and Sipay,
1975), a recent survey of instructional practices indicated that over
four-fifths of the primary grade teachers allocated some daily segment of
instruction to oral reading (Howlett and Weintraub, in press). Thus,

oral reading seems to be a common feature of reading instructional sessions in the primary grades. At the same time however, we know little about either the nature of teacher verbal behavior during this component or the effects of the teacher verbal behaviors which occur.

METHOD

The cooperation of the reading directors or building principals in three school districts was elicited and they were asked to distribute a participation form and brief questionnaire to all primary grade teachers under their administrative direction. The participation form in some ways masked the true purpose of the study since it indicated only that the investigator was interested in the development of oral reading fluency in beginning readers. Additionally, teachers were informed that the investigator wished to audio-tape record reading lessons, particularly oral reading segments. The questionnaire simply asked the teacher whether the teacher grouped by reading achievement for reading instruction and whether oral reading, or rereading, was a relatively common feature of reading instructional sessions. Additional questions asked for grade level, number of reading groups, and approximate scheduling of instructional sessions.

Twenty teachers were ultimately selected from (a) those who indicated a willingness to participate, (b) who arranged reading instruction around reading ability groups, and (c) who indicated oral reading was typically part of the reading instructional session. Audio-tape recordings were

then made of a single reading instructional session for the two groups
the teachers identified as the best and worst readers. The recordings
were made by either the classroom teacher or the researcher (or research
assistants). Teacher participants were given the option of self-recording
their reading instructional sessions or having researchers operate the
equipment. Six teachers chose to operate the recording equipment them-
selves. None of these teachers seemed particularly uncomfortable with the
researcher in the classroom, but instead utilized rather flexible
instructional scheduling and seemed concerned about keeping the researchers
waiting around for reading instructional sessions to begin.

All teacher participants were asked to simply conduct the reading
instructional sessions as they normally would. Several asked whether the
students could read the material silently first, or whether they should
teach the "hard" words, etc. In all cases, they were simply directed
to conduct the instructional session as they normally did.

Copies of the materials used in the reading instructional sessions
were collected and used to record the several sets of data of particular
interest. These data were: number of pages read, number of words read in
text, and the errors made by each child while reading.

The data of primary interest were the teacher's interruption behaviors
which occurred while the students were orally reading connected text.
Figure 1 shows the categorization scheme imposed upon these behaviors.

All responses made while reading orally which did not agree with
the printed text were scored as errors and entered on the data sheets.
The teacher's verbal behaviors cued by these errors were categorized on
two dimensions; point of interruption and direction of interruption.

FIGURE I

Miscue/Expected	Point of Interruption				Direction of Interruption				
	None	At Error	After Error but not at phrase	After error at phrase or sentence	Graphemic	Phonemic	Semantic/syntactic	Teacher pronounce	Other

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The point of interruption categories included:

None – the teacher made no verbal response to the error.

At error – the teacher interrupted the reader at the point of the error. Teacher comments when students hesitated or paused at a word were scored as "at error" responses.

After error but not at phrase + – the teacher interrupted the reader after the error but not at a phrase or sentence boundary.

After error at phrase or sentence boundary – the teacher allowed the reader to continue reading after the error but interrupted at a phrase boundary or at the end of the sentence.

The direction of interruption categories included:

Graphemic – teacher comments which directed the reader to attend to a visual aspect of the word were scored as graphemic. Agreed upon comments included: What was the first letter? Look at that letter again. That's not a b. No, it's another word that looks like that. etc.

Phonemic – teacher comments which directed the reader to attend to a grapheme-phoneme correspondence, or to produce the appropriate phoneme were coded as phonemic. Agreed upon comments included: Sound it out. What sound does that letter make? It's the short sound. Blend those sounds together. etc.

Semantic and Syntactic – teacher comments which directed the reader to attend to either syntactic or semantic aspects of the sentence, or story, were coded as semantic-syntactic. Agreed upon comments included: Does that make sense? Read that again. Are you sure that's what it says? That doesn't sound right to me. etc.

Teacher pronounce – teacher simply provided correct pronunciation of word.

Other – All responses which were not categorizable in any of the preceding categories were coded other and a brief written description of the verbal behavior was noted. Agreed upon comments included: That's not that word. Try to get that word. You know that word. etc.

The audio-tape recorded instructional sessions were scored for both oral reading errors and teacher interruption behaviors by the researcher and a research assistant. Questions about errors and categorization of interruption behaviors were resolved by repeated listening to the audio-tape recording and discussion.

RESULTS

An analysis of variance with repeated measures was carried out following arcsine transformations of the proportion of interruptions by each teacher for each group. Table 1 summarizes these analyses.

Table 1: Analysis of Variance

Source	SS	df	MS	F
Between teachers	19.38	19		
Within teachers	23.50	20		
Reading groups	13.51	1	13.51	25.98 *
Residual	9.99	19	.52	
TOTAL	42.88	39		

*F.99 (1,19)=8.18

There were significant differences (p. < .01) in the proportion of interruptions, with the poor readers interrupted at a higher rate of incidence than the good readers. Since the analyses were performed on the proportion of interruptions to reading errors, it seems that teachers are more inclined to interrupt the oral reading of poor readers. Another way of looking at these data is to consider that, overall, teachers interrupted poor readers on 68% of their errors and good readers on only 24% of their errors.

A second point of interest was whether there were differences in the location of the teacher interruptions. Table 2 presents a summary of these data. Small, but consistent, differences are evident with the poor

readers more likely to be interrupted at the point of the error than the good readers.

Table 2: Percentage of teacher interruptions by point of interruption and direction of interruption as a function of reading group placement

	Point of Interruption				Direction of Interruption				
	None	At Error	After Error but not at Phrase +	After Error at Phrase or Sentence	Graphemic	Phonemic	Semantic/Syntactic	Teacher Pronounce	Other
Good Reader Group	76%	70%	14%	15%	3%	14%	31%	37%	15%
Poor Reader Group	32%	88%	3%	9%	13%	13%	12%	42%	20%

Table 2 also presents data on the direction of the interruption, or to which of the available cues the teacher seemed to be directing attention. The most common interruption behavior for both groups was for the teacher to simply pronounce the correct word for the reader. Teachers were a bit more likely to cue poor readers to graphemic cues while directing good readers to attend to semantic and syntactic cues. Teachers directed the attention of both groups to phonemic cues at nearly equivalent levels. As an additional note, the interruptions in the final category (other), were primarily a simple "no" statement indicating to the student an incorrect pronunciation of a word.

There were a variety of patterns within teachers however, on the incidence, point, and direction of the interruption behaviors. For instance, teacher K never interrupted on 20 errors by good readers and interrupted only twice on 18 poor reader errors. Teacher L, on the other hand, interrupted on 5 of 13 good reader errors and 19 of 21 poor reader errors. All teachers, except one who had no interruptions for either group, were more likely to interrupt the poor readers. Some teachers consistently interrupted at the same point for each group (at the error or at the sentence boundary) and some consistently provided interruption comments in a single category (such as "sound it out" or "look at that word again"). Teacher M, for instance, provided the correct pronunciation after each of the 23 interruptions for both groups.

In an attempt to identify whether there was a general "tendency to interrupt," or a correlation between the incidence of interruptions across groups, the proportion of interruptions for each teacher with each group were ranked and compared using the Kendall Tau for tied ranks (Glass and Stanley, 1970). This analysis indicated there was no significant correlation in the incidence of interruptions for the two groups (T = .23 with S, 38/N, 20). It appears that there is no single teacher interruption tendency, as such. In other words, no prediction about a teacher's interruption behaviors with good readers can be made from the interruption behaviors exhibited with poor readers or vice versa -- except, of course, that the poor readers are more likely to be interrupted.

Several other sets of data are presented in Table 3. Basically, these data illustrate that good readers read more words per lesson than poor readers. All teachers followed this pattern even though the range of words read was quite wide. Interestingly, the poor readers completed

more pages than the good readers but read fewer words. This points to a possible problem for researchers who attempt to compare the number of units of instruction completed. If pages had been the only unit of instruction observed in this study, one might conclude that the poor readers were doing more reading than the good readers when in actuality they read about half the number of words the good readers did.

Table 3: Differences in number of words and pages read as a function of reading group placement

	Words read			Pages read		
	X	(SD)	range	X	(SD)	range
Good reader groups	530	(307)	141-1306	6.4	(2.5)	3-15
Poor reader groups	249	(130)	56-686	7.3	(4.2)	4-19

DISCUSSION

To return briefly to the first question posed in the title -- it seems poor readers do receive reading instruction that differs from that provided good readers. That is, good readers are less likely to be interrupted when reading orally and will generally read more in each instructional session. The interesting question though is posed in the latter part of the title. Is that why poor readers are poor readers?

Unfortunately, the data collected do not provide any satisfactory answer. Several recent studies though seem to suggest a possible answer. Niles, Graham and Winstead (1976) instructed teachers to interrupt at

every error during an oral reading tutorial session or to never interrupt
subjects when reading, regardless of the errors produced. The nature of
the oral reading errors made under each condition and the comprehension
levels of the readers were examined after these sessions. Teacher
interruption produced both different error patterns and lower comprehension
than did non-interruption. The errors induced by the interruption
behaviors reflected attention to graphic and phonic cues and a disregard
for semantic and syntactic information. The authors suggest that teacher
interruption behaviors tended to direct student attention to surface
features of text rather than on the reconstruction of meaning. Additionally,
students in the interruption condition read fewer words and at a slower
rate than those in the non-interruption condition.

If one considers the location and content of teacher verbal behaviors
as a type of orienting instruction, then several possible effects might
be expected. Mishler (1972) discusses "what is learned" and "how it is
learned." Mishler's three components of a teaching lesson; (1) how
attention is focused, (2) search and evaluation procedures used, and
(3) structure of alternatives presented can be used to analyze the
present data. These teachers seemed to focus student attention differently --
the good readers were given more autonomy. The good readers seemed also
to have their attention directed towards a divergent problem-solving
search while the poor readers were relegated a matching convergent
strategy. Basically, the good readers were more often left alone while
the poor readers were constantly having their performance interrupted.

An adaptation of the Craik and Lockhart (1972) "levels of processing" model for human memory provides yet other insights into possible effects of the differential verbal behaviors observed in this study. Allington, Mosenthal, Gormley, and Walmsley (1978) argue that poor readers often seem to process at a graphemic or phonemic level while good readers seem to most often process at a semantic-syntactic level. It may be that learning to read is facilitated, like much other human learning (Epstein, Phillips, and Johnson, 1975; Eysenyk, 1974), by processing at semantic levels. The teacher interruption behaviors observed with poor readers then would not seem to facilitate learning to read. Rather, frequent interruptions at the point of the error, and particularly those directing attention to graphemic or phonemic aspects of the text would produce readers who processed at these surface levels. These readers could logically be expected to adopt a convergent matching strategy with attention focused on surface level features of text, while the less frequently interrupted good reader would adopt a convergent search strategy with attention focused upon reconstruction of meaning. The latter group would be performing then in a manner more consistent with recent formulations of good reader behaviors (Mason, 1977) while the poor readers would perform in a manner generally consistent with descriptions of poor readers (Allington, et al., 1978).

The second facet of the present data was confirmation of the suggestion that poor readers read fewer words during reading instructional sessions than good readers. A key point here is the possible relationship between pacing of instruction and rate of acquisition. As long as poor readers

read less than half as much as good readers, one cannot expect them to

equal the performance level of the better readers. While the comment by

Rist (1970), that low-achieving students don't learn because they

aren't taught, is perhaps too strong, it does seem reasonable to suggest

that poor readers cannot learn what they are not taught and will never

equal the learning of the good readers if they continue to proceed at

half the pace. Guthrie and Seifert (no date) suggest that, based upon

their analysis of instructional time effects, poor readers might very well

achieve at levels equal to good readers if instructional time were

increased. One might also suggest that in addition to increasing

instructional time, the poor reader will have to read more words per

lesson than the good reader and constant teacher interruption serves to

reduce the rate of progress and seems to induce many of the processing

strategies associated with poor readers.

SUMMARY

This study was exploratory and descriptive and as such it served to

raise more questions than it answered. While we know different teaching

strategies induce different production strategies in primary reading

instruction (Barr, 1971; Cohen, 1975), we have little understanding of

the complex relationship between process and product. We still know

little about why teachers interrupt poor readers more often and why they

provide different verbal reactions to the reading errors of good and poor

readers. Neither do we know whether one strategy is always more effective or whether different strategies are appropriate at different stages of development.

A primary purpose of this paper is to reiterate what Emans and Fox (1974) suggested; investigators of teaching processes must not only attend to what the teacher says and does, but must also take into account the student as a receiver of the message. We must, as Winne and Marx (1977) suggest, reconceptualize our research on teaching. By drawing upon what we already know about the complex cognitive activity called reading, we can begin to analyze observed classroom practices for their potential for developing the skilled interactive reader. Attending only to global features of instruction and attempting to infer causation from correlation will not provide the insights necessary to produce a model of the effective teaching of reading.

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