1-1-1979

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A PSYCHOLINGUISTIC LOOK AT THE INFORMAL READING INVENTORY PART II: INAPPROPRIATE INFERENCES FROM AN INFORMAL READING INVENTORY

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In the previous issue of *Reading Horizons*, we expressed concern with the widespread use of what is typically known as the informal reading inventory (IRI). The major problem, we argued, is that many versions of the IRI encourage teachers to look primarily at the quantity of a reader's errors, rather than at the quality. Such a procedure may lead teachers to underestimate children's reading strengths and/or to prescribe inappropriate skills lessons. Another problem is the various phonics, sight word, and word analysis tests that often accompany the IRI. Doing well on such tests does not necessarily indicate that a reader is good at processing connected text, or vice versa. On the one hand, some readers who are good at analyzing and recognizing words, have difficulty getting meaning from what they read, while other readers who are good at getting meaning are not so skilled at analyzing or recognizing isolated words. It is the latter group whose reading ability is often underestimated with an informal reading inventory, as well as with most other kinds of assessment.

In this article we propose to discuss in more detail the kinds of inferences that may be inappropriately drawn from an informal reading inventory. This discussion should strengthen the rationale for our approach to analyzing a reader's miscues (errors) and determining what kinds of instructional approaches might be appropriate for that reader (see the preceding issue of *Reading Horizons*).

1. *A Reading Diagnosis Checklist*

When using an informal reading inventory, then, the teacher needs to keep two basic principles in mind:

1. The quality of a reader's miscues is more important than the quantity.
2. Apparent problems in word recognition or word attack skills may often be better interpreted as the result either of a *good* use of context, or a failure to make good use of context, (depending, of course, on the particular miscue).

To illustrate what this might mean in actual practice, let us examine

various observations and inferences that the teacher is invited to make in using the Reading Diagnosis Checklist from Frank May's *To Help Children Read* (1973, p. 130; Reprinted by permission of Charles F Merrill Publishing Company). See Figure 1 here. We will work from the inferences that the teacher is directed to consider, bringing in the various observations as they are relevant:

a. *Basic sight words not known (Item 12).*

Observing that the child sometimes substitutes one basic sight word for another and/or that the child sometimes omits basic sight words, the teacher might conclude that the child does not know these words. Such an assumption may be unwarranted, because the child may be reading for deep structure, the basic meaning, and not for surface structure, a precise reproduction of the words of the text. An example would be if the child said *roof* for *house* in reading the sentence *Jane's father was on the house* (see our previous article). Another example is *older* for *other* in *The other seals knew better,* where the preceding story context made it clear that the "other" seals were all older. Good readers often make miscues which bear little visual or phonic resemblance to the text word but which preserve the meaning in context. The following examples show the substitution of one function word for another, a pattern typical of good readers (see Goodman 1973; some of our examples are from this source):

<table>
<tr><td>their
White men came from the cities.</td><td>It
That took us about an hour.</td></tr>
<tr><td>A
The circus man made a bow.</td><td>might
"You may be right."</td></tr>
<tr><td>about
Peter the pony ran around the ring.</td><td></td></tr>
</table>

In addition, good readers sometimes omit function words that are not structurally necessary:

omitted
She made her own paints from the roots.

omitted
but after a month we saw that nothing was growing.

Mr. Tully beat me more often and more cruelly than

omitted
Mr. Coffin had done.

Similarly, good readers sometimes insert function words that are structurally optional:

the
Billy feasted on roast corn . . . .

up
it was enough to wake the dead.

that
They told him he had been foolish to plant sesame . . .

Type of Error or Problem					Level of Reading Passage					
Observations	Pre	Pr	1	2^1	2^2	3^1	3^2	4	5	6
1. Word by word reading										
2. Incorrect phrasing										
3. Mispronunciations										
4. Whole-word omissions										
5. Partial omissions										
6. Repetitions										
7. Reversals										
8. Whole-word insertions										
9. Partial insertions										
10. Substitutions										
11. Punctuation ignored										
Inferences										
12. Basic sight words not known										
13. Guessing at words										
14. Weak in phonic analysis										
15. Weak in structural analysis										
16. Weak in contextual analysis										
17. Comprehension poor										
18. Nonstandard dialect										
19. Punctuation not understood										
20. Needs help on phrasing										

Comments:

In each of the above examples, the meaning is preserved even though the surface structure is altered. The child made *good* miscues, and we are not justified in assuming that the child did not know the word printed in the text. Instead, we should assume that the child is reading in phrase or clause units rather than word-by-word, reading for meaning rather than for accurate reproduction of the words of the text. And since the getting of meaning is presumably the goal of reading and of reading instruction, we would do well not to lead the child away from this goal by insisting that every detail of the text be rigorously preserved. When the child has become generally proficient at getting meaning, *then* we can demonstrate the need for attention to detail in reading certain kinds of materials — directions, applications of various kinds, legal contracts, and so forth.

b.   *Guessing at words (item 13)*.

Observing that the child sometimes replaces the text word with a word that looks and sounds radically different, the teacher might conclude that the child is guessing at words. Again, however, we must look at the quality of the "guess." A reader who has been taught to use the total context will make educated guesses or *predictions* about what is to come next. If these predictions preserve the essential meaning of the text, or if they are disruptive of meaning but are self-corrected, the teacher has little cause for concern. Examples of such good miscues might be *roof* for *house, baby* for *child, bird* for *canary*. Note also the following example, where the child makes a miscue at the end of a line, then corrects her miscue when the next line of text reveals the error of her prediction:

<blockquote>
saw
I first saw Claribel when I was working in my office.
</blockquote>

The miscue *saw* for *was* is not a habitual association for this girl, nor is it merely a "guess": it is a reasonable prediction, based upon sentence structure (a past tense verb is needed), upon meaning (an appropriate extension of "I first *saw* Claribel . . . ."), and upon minimal attention to letters and sounds. When the following line failed to confirm this prediction, the girl corrected *saw* to *was*. A similar miscue from the same student is the following (both examples are from Goodman and Burke, 1972):

<blockquote>
Instead, there was a lovely song.

heard
I looked up and had my first view of Claribel.
</blockquote>

The miscue *heard* was again a logical prediction, based on meaning (the lovely song was obviously heard), sentence structure (a past tense verb was called for), and minimal attention to letters and sounds. Obviously this reader is making use of good reading strategies, not merely guessing at words.

Note that if we were to look at these last substitutions without reference to context, we would indeed assume that the child was guessing — or, in the

case of *saw* for *was*, that the child was showing a habitual confusion of words or reversing letters. By examining these miscues in context, however, we can see that they are good quality miscues, stemming from productive reading strategies.

c. *Weak in phonic analysis (item 14)*.

Observing that a child sometimes sounds out words but ends up with the wrong word or a non-word, the teacher might conclude that the child is weak in phonic analysis. Examples which might lead the teacher to such a conclusion are the following (all the examples are from the same child):

<div style="text-align:center">beaches</div>
the children sat on little benches in front of the teacher . . . .

<div style="text-align:center">expert</div>
Every day except Friday, . . .

<div style="text-align:center">souts</div>
The sandy shore rang with the happy shouts and cries

of the village boys and girls.

<div style="text-align:center">ramped</div>
The boys repeated everything the teacher said. . .

Seeing such miscues, the teacher may be tempted to conclude that the child needs more work with phonics. Examining the words in context, however, we see that the problem may be *too much* phonics, or rather phonics with too little else. The miscue *beaches* made some sense in the total context, but the miscue *expert* for *except* does not even fit grammatically; the non-words *souts* and *ramped* show that the child is attending to grammar (the plural -s and the past tense -ed), but not to sense.

An extensive study of over 6,000 one-syllable and two-syllable words among 9,000 different words in the comprehension vocabularies of 6- to 9-year-old children revealed 211 separate spelling-sound correspondences. Of this total, 166 correspondences occurred in fewer than ten words out of the total set, while 45 correspondences occurred in fewer than ten words (Berdiansky et al. 1959, as reported in Smith 1973). Thus even if it were possible for beginning readers to master all 166 "rules," how would they know whether any given case represented a rule or an exception? (If this sounds far-fetched, try to explain how you know the pronunciation of *ho* in the following words: *hot, hoot, hook, hour, honest, house, hope, honey, hoist, hog* (Smith 1973). Clearly phonics can supply only a clue, an approximation to how the word is pronounced. The child who made the miscues above needs to learn to *predict* what is coming next on the basis of what he has read so far, then use phonics as one means of confirming or correcting the prediction. *More* phonics will simply make the child an even poorer reader than he already is, because it will force him to pay even closer attention to small details and lead him away from a concern for meaning. Indeed, at the junior high and high school level, the poorest readers are often those whose miscues show the *closest* letter-sound correspondence to the text word (Goodman 1973). Such readers come close to sounding out

the word, but because they are using phonics almost exclusively, they get neither the word itself nor the essential meaning of the material being read.

d. *Weak in structural analysis (item 15).*

Observing that a child omits or alters grammatical endings, a teacher might conclude that the child is weak in structural analysis. One thing the teacher should realize, however, is that readers who are predicting will need to use grammatical endings only to confirm or correct their predictions, not as an isolated tool for word analysis. Take for example the following sentences, and try to predict what regular grammatical ending would probably occur on a word that fits in the blank:

> All the _____ will be there.
> He is _____ his dog.
> That car is his _____.
> He _____ it yesterday.

Using context, we will naturally predict a plural *-s* or *-es* for the first blank; a present participle *-ing* for the second blank; a possessive *'s* or *s'* for the third blank; and a past tense *-ed* for the last blank. Of course, the actual word might be irregular in its form, but the prediction is essentially correct and the ending (if the word is indeed "regular") will merely confirm our prediction. Context is often enough to make the grammatical form clear – and we are not seriously hampered when we have to use context following the word in question, because our eyes are typically about four words ahead of the word we are focusing on, and our brain can make use of this *following* context in identifying a word! Have a friend read the sentence *There were two tears in her dress* and see whether or not the word *tear* is pronounced correctly. Once beginning readers are able to recognize at least some words on sight, even they tend to read ahead – unless the instructional program discourages this productive strategy and forces readers to focus on individual words.

Since a word's grammatical function is often made clear by context, it should not be surprising that these grammatical endings are sometimes omitted in certain varieties of English. In particular, many speakers of Black English and many speakers who come from a different language background (e.g., Spanish) may omit from their speech the noun possessive and the noun plural ending, the verb third singular and the verb past tense and past participle endings, plus some others like the adverbial *-ly*. The meanings associated with these endings are signaled by context, either by context within the same sentence or by the larger communicative context. In reading, then, we may find such miscues as the following (for more examples, see Goodman and Buck, 1973):

> Finally the keeper(s) gave up looking for him.
> George found a nice cozy spot to sleep under the elephant('s) right ear.
> It go(es) fast.
> He live(d) in the Zoo.

Usually such miscues reflect not a loss of meaning, but simply the fact that

the child has derived the meaning of the text and recoded that meaning into his own typical surface structure. In one particular study, such "translation" was found to be more typical of the good readers than of the poorer readers, again supporting the observation that good readers are more concerned with essential meaning than with surface detail (Hunt 1974-75). One cannot help suspecting that the poorer readers *are* poor at least partly because they concentrate on surface detail at the expense of meaning.

e. *Weak in contextual analysis; comprehension poor (items 16 and 17).*

Observing that a child makes miscues which do not make sense in context, a teacher might conclude that the child is weak in contextual analysis. The teacher is most likely right. And the child is likely to be poor in comprehension as well as in contextual analysis.

The overriding difficulty is probably that the child is not reading for meaning, not trying or expecting to get connected meaning from the text. Hence the child is not bringing meaning to what he/she reads, not predicting what is coming next, but rather dealing with each word as if it stood in isolation. (Actually most children use at least the preceding grammatical context, making miscues that are structurally acceptable with the preceding part of the sentence; an example is *and* for *can* in the sentence *Spot can help me*.) Poor comprehension and a weakness in contextual analysis usually go hand-in-hand with an overreliance on phonic cues or a tendency to make guesses · either wild guesses or guesses limited to words which have been introduced by the teacher. The child with such a pattern needs to learn to actively seek meaning, to use context *before* trying to deal with the word itself.

f. *Nonstandard dialect (item 18).*

Observing that a child uses immature or dialect pronunciations or that a child omits grammatical endings, a teacher might conclude that such patterns will interfere with a child's comprehension. This is rarely the case.

It was noted above, in section *d*, that a word's part of speech is often clear from context alone, and that speakers of certain varieties of English do often omit certain endings in their speech. It is only logical, then, that a child's reading for meaning might "translate" the written text into the grammar of his or her own dialect (see the discussion above). And of course it is even more likely that immature or dialect pronunciations reflect comprehension rather than a loss of meaning. If a child reads *teef* for *teeth*, we can be virtually certain that he or she has gotten the meaning. On the other hand, if the child normally says *teef* but patiently sounds out the text word and pronounces the *th* "correctly," we may need to check to see whether the word has been understood. In short, then, immature language miscues and dialect miscues usually reflect comprehension instead of interfering with it. Though the teacher might want to "improve" the child's speech, he or she should refrain from doing so during reading instruction.

g. *Punctuation not understood; needs help on phrasing (items 19 and 20).*

Observing that a child seems to ignore punctuation marks and/or to

read word-by-word, a teacher might conclude that the child needs work on punctuation and while some readers *do* need help in reading with appropriate intonation, such help often treats the symptom rather than the cause.

Since our eyes usually are only about four words ahead of our voice, most punctuation comes too late to signal meaning (this is especially true for the child whose eyes are only one or two words ahead of the voice). The good reader in effect *predicts punctuation* through structure. Take for example the following sentence openers: will the sentence be a statement, or a question?

> The _____
> He _____
> Is _____
> Who _____

We will naturally predict a statement in the first two cases and a question in the last two cases. Hence periods and question marks serve mainly as confirmations of structure, not as devices to trigger appropriate intonation. The same is ordinarily true for the other punctuation marks; they serve mainly to confirm the reader's prediction of structure or to signal that the prediction was incorrect. A reader who typically makes incorrect predictions may not be reading for meaning.

II. *Reading for Meaning*

Throughout this discussion of the Informal Reading Inventory, the major themes have been that the purpose of reading is to *get meaning*; that the teacher must evaluate a child's miscues in terms of their *quality* rather than their quantity, deciding whether they do or do not preserve the essential meaning of the text and reflect good reading strategies; and that we must examine miscues *in context* to decide whether they are or are not good miscues. One further point needs to be made: a good reader typically corrects miscues that disrupt meaning, while a poor reader does not. Thus it is absolutely essential to look at whether or not the miscues are corrected. A child on the way to becoming a good reader may still make miscues that disrupt meaning, but he or she may be learning to correct these without prompting or help. This means, among other things, that repetitions can be a healthy sign. A child going back to correct a word will often repeat words and, indeed, the teacher may learn a lot about the child's reading strategies by examining the extent of such repetitions.

III. *The IRI as a Diagnostic Instrument*

In summary, then, such checklists as the one described above are of dubious value in assessing a child's reading strengths and weaknesses. The teacher attempting to use such a checklist should keep several points in mind. First, the teacher should refrain from supplying words during the reading session, so that the child's independent reading ability can be accurately assessed (this is contrary to the procedure recommended by May). Second, it is crucial for the teacher to analyze the miscues in context,

deciding whether they do or do not preserve the essential meaning of the text. Third, the teacher should be appropriately skeptical about tests that measure a child's ability to recognize or analyze words in isolation, since such tests may overestimate but commonly underestimate a child's ability to process connected text. Given the difficulty of using most versions of the IRI in such a way, it may be more sensible for teachers to merely adopt the kind of procedure we discussed in the last issue of *Reading Horizons*. This particular approach has the advantage of readily enabling teachers to determine what kinds of instructional approaches might be appropriate for a given reader. Most importantly, however, it should help teachers look for children's *strengths* as well as their weaknesses, by keeping *meaning* at the heart of reading instruction.

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