The significance of the writing/reading relationship has recently been getting more attention in composition. For example, Linda Flower, at the 1984 CCCC meeting in New York, discussed her new investigation of reading protocols to go along with her writing protocol analyses. Sandra Stotsky, writing in the May, 1983 special issue of Language Arts, noted that we need case studies of basic writers to examine the nature of their abilities in both reading and writing. The case study approach elicits particularly interesting data which shed light on the reading/writing connection. Case studies can provide important diagnostic insights helpful to developmental writers, even though in small numbers they do not yield data susceptible to statistical analysis. Case studies can show clearly that developmental writers are in need of extensive help with reading and that reading and writing cannot and should not be taught separately.

The two case studies I present in this paper provide preliminary support for a hypothesis concerning the relationship between reading and writing: that specific syntactic and semantic difficulties in writing are related to reading problems in syntax and comprehension among basic writers. This claim may have important uses for both theory and practice. It suggests that developmental writers' overall literacy skills must be treated more holistically and that teachers should work toward larger
literacy goals. In this context, the term writing miscue provides a rubric for the analysis of reading-related writing problems. Writing miscues can be defined as systematic mismatches between writer production and reader expectation.

The only work specifically examining writing miscues as defined here involved studies of fourth graders carried out by James Ney and his associates in the mid 1970s. Ney did a small study, using twenty-five subjects, in which he used conventional Reading Miscue Inventories (explained below) and had students generate writing using sentence-combining exercises. His findings show that different types of miscues occurred in reading and writing, with writing specifically showing more omissions, and reading more additions and substitutions. The results in the two cases I present in this paper show a different outcome, not surprising since the students I discuss are older than Ney’s subjects and their writing samples derive from regular writing assignments rather than sentence-combining exercises. Furthermore, the omissions Ney observed are probably provoked by the nature of the sentence-combining and unlikely to occur in free composition. Although neither Ney nor anyone else has pursued the idea of writing miscues as far I have been able to find, I hope to show here that it appears to be a particularly fruitful line of investigation.

Two other studies related to the issue of reading/writing interaction are those of Patrick Hartwell and David Bartholomae. Though Hartwell’s purpose was to demonstrate that nonstandard dialects do not cause interference in writing, Hartwell provides significant evidence of the relationship between reading and writing. The two aspects of literacy are related by Hartwell’s concept of a “print code”:

The term print code, as used here, is seen to identify a layered set of cognitive abilities, stretching from matters of surface detail to abstract expectations and strategies for processing print as reader and writer. Literate readers and writers, for example, have mastered the meaning relationships signalled by punctuation, while developing readers and writers will exhibit, in their writing and their reading, only partial mastery of that system. (23-24)

Hartwell goes on to cite a number of studies which support his position and the concept of writing miscues.

Like Hartwell, David Bartholomae was investigating the nature of error in basic writing. In “The Study of Error,” Bartholomae presents a case study of John, a basic writer. While this writer has significant difficulties, he corrects many of his written errors and makes his text sensible when he reads it aloud. John has, in other words, a great many writing miscues. Like Bartholomae, I believe that these writing miscues are systematic in nature and that we are likely to have greatest success with basic writers if we view their work with the “print code” from the reading and writing perspectives together.

Before I turn to the individual cases I report here, I would like to offer some background on the data I collected. At Oakland University,
all entering students take the College Board’s test of Reading Comprehension of the *Descriptive Tests of Language Skills* for placement in writing courses. Many also choose to write an optional short essay. Both students I discuss here placed into the developmental writing course I was assigned to teach. Early in the semester, I asked all students in the course to volunteer to complete a *Reading Miscue Inventory*.

The *Reading Miscue Inventory* (RMI) is the work of Yetta Goodman and Carolyn Burke. Completing an RMI involves the student’s reading a substantial passage aloud while being audiotaped, and afterwards retelling the content of the passage. The RMI provides a method of analyzing all of the reader’s deviations from what appears on the printed page. These deviations are called miscues. Miscue analysis is well-established in the literature of psycholinguistics and reading, having been thoroughly researched by Kenneth Goodman and many others. For the case studies I report here, students read a newspaper profile of F. Alden Shaw, founder and teacher at Detroit Country Day School in Michigan, published in the *Detroit Free Press*. The article is about eight hundred words long and contains a total of seventy-two sentences.

Volunteers came to my office and read the Shaw material aloud while I taped them on a cassette recorder and took notes on both their reading and their behavior as they worked through the text. Here is the opening paragraph as a sample of the passage:

> He no longer walks the halls regularly as he once did, but his small, comfortably plump figure is familiar to students at Detroit Country Day School in Beverly Hills. “Hi, Mr. Shaw,” said the little girl with a shy smile to the courtly old gentleman in a pin-striped suit complete with vest and long-sleeved white shirt. He walks briskly along, but with the aid of a four-foot metal cane. Her greeting is repeated up and down the halls of the expansive, modern building set on 33 rolling acres at Thirteen Mile and Lahser. F. Alden Shaw is as much an institution as the school he founded and ran for nearly half a century. The two, Shaw and Detroit Country Day School, are virtually synonymous. (Briggs-Bunting 3A)

Once the taped reading and retelling were completed, I used the standard RMI scoring sheet to record all of the reader’s deviations from the printed text. Though the RMI is a context-free exercise, which makes it different from writing (and students reading their own writing, as in Bartholomae’s study), it provides one window through which to view the reader interacting directly with a text. That process, albeit in isolation, is revealing for writing instruction.

The students’ writing assignments provide the additional data for my study. My goal in the developmental writing course, is to help each student reach the point where he or she can write 250-300 words of grammatically correct, organized English which explain or develop a clearly worded thesis. To reach this goal, students complete between thirty and thirty-five writing assignments during the term. Some of these are just
one paragraph long, and some are revisions or expansions of earlier papers. In addition, students receive instruction in reading activities relevant to writing (such as those described in Horning) and some grammar instruction. In class, there is much discussion of writing strategies and techniques for development, paragraph organization, and so on. Although in this essay I present only three writing samples, they represent fairly the work of these individuals. (I use the test scores and samples of written work with the students' written consent; initials protect privacy.)

The first case study is that of Ms. BC, which provides an example of a writer with significant syntactic difficulties in writing and problems with grammatical relationships in reading. Table 1 in the Appendix summarizes BC’s scores and reveals some of her problems.

BC’s Reading Comprehension score reveals some serious problems with reading. The RMI further supports this claim. Not only did BC have an exceptionally difficult time reading the passage, but she also took quite a bit longer to read it than did other students who completed the RMI. The RMI provides no way of coding a problem with intonation marking the ends of sentences so, in this analysis, a simple count was made of the number of times BC came to the end of a sentence and read it with rising intonation or flat intonation rather than with the customary falling intonation. As Table 1 in the Appendix shows, this inappropriate intonation pattern appeared on 29% of the sentence boundaries in the passage in BC’s reading.

The scoring of the RMI provides three levels of grammatical acceptability. First, some miscues may be completely appropriate to the grammatical structure of the sentence. Second, some miscues may be partly acceptable with either the prior or following portions of the sentences. A third possibility are miscues which are completely unacceptable in the structure of the sentence. As Table 1 shows, all miscues which are inappropriate grammatically, both partially unacceptable miscues and completely unacceptable miscues, are grouped together in the “grammatically inappropriate” category, which represents 49% of the miscues in BC’s RMI.

Perhaps an example will be helpful at this point. In the text, a sentence in the second paragraph on Country Day’s academic requirements reads: “And Latin, the nemesis of generations, is still offered as an elective.” BC read this as follows ($ is an RMI coding convention for reader-invented word forms): “And Latin, the $intimas and $generacy is still an elevate.” Following this rendering, BC made no attempt to reread or correct her miscues. Because the invented forms cannot be judged for grammatical function, they are scored as grammatically unacceptable. The substitution of often for offered is scored as partially acceptable grammatically because it fits with the portion of the sentence preceding it. Overall, this example demonstrates both BC’s difficulty with the passage and the scoring of grammatical acceptability.

Once the RMI is complete, several patterns can be found among the scores for each miscue. One of these is the pattern for grammatical rela-
tionships. Goodman and Burke describe the grammatical relationships pattern this way:

The questions of the Reading Miscue Inventory which determine correction (Question 6), grammatical acceptability (Question 7), and semantic acceptability (Question 8) are interrelated to produce patterns which give insight into how concerned the reader is that his [sic] oral reading sounds like language. . . . There are eighteen possible patterns produced by interrelating these three questions. The patterns have been categorized according to the degree to which they indicate the reader's strength in using the grammatical and meaning cueing systems, and are listed under the headings of "Strength," "Partial Strength," "Weakness," and "Overcorrection." (RMI 71)

In BC's RMI, 46% of her miscues reflect a weakness in grammatical relationships of this kind. In particular, this pattern reflects an almost total lack of correction of miscues by BC. Good readers will reread portions of text in which they have generated a miscue if the miscue makes a significant change in the meaning or grammatical structure of the text. BC, in contrast, rarely corrected any miscue she generated. Thus, BC demonstrates a significant problem with grammatical relationships in reading.

In addition to her problem with grammatical relationships, BC's reading shows a pattern in comprehension. BC's comprehension patterns show a 38% loss of comprehension. This difficulty is illustrated further by her score of 24% on the retelling portion of the RMI which calls for the reader to sum up the reading by recalling as many details and specifics as possible. (I devised, and asked of each student, a standard set of prompt questions.) BC, then, is a reader who has serious problems with the process of getting meaning from print, and she seems to have particular difficulty making use of the grammatical cues to meaning in written text.

BC's writing reflects the problems with syntactic structure found in her reading. Here are two samples of BC's writing, written in response to two different assignments early in the term:

Sample A

The Oakland Sail is a news paper that cover most of the thing that go on at Oakland University.

This new paper sends reporter out on the campus to talk to the student body. It is a good way to find out what is going on, and to let other see what's going on in the student body eye's.

The paper tell you various things going on at the campus using the paper you will find that it can help you to see what is going on I get a Oakland Sail paper each time it come out just to find out what is going on.
Sample B

The room that I stay in is plain it has know life: it was made for two people it has two beds in it. My room is very depressing after awhile you have to get out of the room and walk. You can hear every thing that go on around your room. It has an outside door that is share by four people we have one bathroom inside this room made for four people. It is like living in a rat hole with a lot of little rat running all over you. This is my room.

I have made some corrections of spelling to remove distractions from the point of presenting these samples. These two samples together provide a total of seventy-two sentences, used for comparison to the reading passage, which also contained seventy-two sentences. In BC's sentences, as noted in Table 1, 46% of the sentence boundaries were inappropriate (run-ons, comma splices or other problems in punctuation), and 34% of the sentences show inappropriate syntactic relationships, a category which includes problems of agreement and related matters. Each of BC's writing errors, though, seems to represent a mismatch of reader expectation and her actual production. Syntactic deviations yield readily to this kind of analysis and an inventory of the possible patterns of deviation, similar to those in the RMI, might be developed in future research. (Semantic deviations, discussed in WM's case, below, are not quite so straightforward, but would be likely to yield patterns also.) Looking for and finding such patterns is useful diagnostically and pedagogically, as Bartholomae has said. The difficulties which appear in BC's reading also appear in her writing, and these weaknesses lend support for the position that reading and writing cannot reasonably be separated if students are expected to develop competency in writing.

Mr. WM's work provides further support for the importance of working on reading and writing simultaneously. WM presents an example of a student with difficulties in the semantic or meaning aspects of printed language. My purpose here is not to compare WM to BC, for they present rather different aspects of the connections between reading and writing. However, WM's reading ability is, like BC's, fairly weak, and his problems as indicated by his score on the Reading Comprehension test are further documented by the results of his RMI. I present different information drawn from WM's RMI because, unlike BC, WM's chief difficulty lies in semantics rather than in syntax. WM does have some problems with syntax as the writing sample below will show, but they are not problems of the magnitude of those of BC. Table 2, in the Appendix, summarizes WM's reading scores and some of his problems.

WM's difficulty with getting meaning from print is suggested by the nature of the semantic problems with his miscues. Like the syntactic analysis of miscues, the semantic analysis may show a miscue which is acceptable given the meaning of the rest of the sentence, or which is partially acceptable, or which is unacceptable in terms of the meaning of the sentence. In WM's case, 60% of his miscues were either partly or completely unacceptable semantically. An example of one such miscue...
occurred in a sentence (in the same passage read by BC and described above) which read: “We have to develop a system where people can’t simplify by shoved along.” WM read the sentence as follows: “We have to develop a system where people can’t be shoved along.” This miscue is unacceptable semantically in this sentence. Some 60% of WM’s miscues were either partially or completely unacceptable semantically, indicating that, as Goodman and Burke say, “the success with which the reader is producing understandable structures” is limited (RMI 60).

Another aspect of WM’s problem with meaning in print is illustrated by the 51% of miscues which alter meaning, as shown in Table 2. In analyzing miscues for meaning change, the focus shifts from acceptability to the question of whether the miscue has changed the meaning of the sentence as the author intended it. It is possible to have a miscue like the “simplify by” example above which alters the meaning to a minimal degree, one which changes the meaning completely, or one which does not change meaning at all. In WM’s RMI, 51% of his miscues showed a partial or extensive meaning change.

Given these difficulties, it is not surprising to find that WM’s overall loss of comprehension is at 40%, and his retelling at 20%. The comprehension pattern, again, is determined by looking at the relationship of the questions of correction, semantic acceptability, and meaning change. Overall, WM’s reading suggests that he has serious difficulty understanding when he reads. And, again like BC, WM’s problem with printed text turns up in his writing. Unfortunately, semantic difficulties in writing do not yield the same kind of numerical analysis that syntactic problems do, so no statistics are available to report on WM’s problem expressing his ideas in writing. But here is a single sample of his writing, which reveals the sort of problem he has deciding what he means, and staying with his point:

Comparison of Two Girls

I have met one of the girls I know for four years is a nice sweet and generous young lady that I had a pleasure of meeting at my four years of high school. The other person I met as a very sure person, but she always gets herself in trouble doing things that she isn’t capable of messing with. One of the girls I met is very smart, charming, and she belongs to a club in high school the same club I am in. She likes to go places with us, and go on trips, picnics and movies around the state.

The other person is trying to get every boyfriend in the world. Always trying to find the perfect man for her, quitting one person and going on to another, it keeps on going. She always is being treated like a dog, or like someone is trying to jump on her. She shouldn’t be telling her friends about other people’s business. She nearly was jumped on by my sister and a few of her friends because she was telling other people’s business. She is lucky one of her friends got her out of this mess. Otherwise she would be in deep trouble.
The nice girl never got in any trouble, yet she never does crazy things like the other person did. She is a member of the national honor society, President of the senior class, and she is involved in plays, clubs and activities. I graduated with her this year. For any reason she is reaching her goal to get her education and stay out of trouble. She has a lot of friends that admire her and are around her. One thing about her never say that this person does a lot of things for the school.

The other person she is a very smart person, but she hasn’t done well in high school. She graduated from junior high school with high marks, came to senior high school skipping her classes. She isn’t going anywhere skipping class and being with your friends hanging out of the class room. The mark is very low because she doesn’t want to go to class. School is about going to class for an education.

The nice person did the right thing staying in school, graduating with good marks and going to college for an education and to find a good job. She stays out of trouble of course. The other person never changes, or being the same person. If she can stay out of trouble, and go to class everyday that student will have a successful career.

WM’s essay begins as a standard comparison/contrast paper, but it rapidly comes apart as WM has more and more trouble keeping separate the two people he discusses. A mismatch occurs between the reader’s expectation of a discussion of similarities and differences, and the writer’s loss of focus and separation of his points. The focus seems to get away from WM: he is clearly biased toward the better student, but he contradicts himself by saying that she “does a lot of things for the school.” Part of the weakness in this writing is the absence of a conventional structure, and the usual guideposts to help readers see the writer’s point: thesis, transitions, summary, and so on. By the end of the paper, it is not clear what WM has really compared, or what kernel of the truth he wants to present. Indeed, the point in the last sentence is not clearly related to anything preceding it. These deviations would show up as a pattern in a Writing Miscue Inventory, a pattern that may appear repeatedly in WM’s writing.

The confusion and contradictions evident in WM’s writing turned up also in his attempt at retelling the reading passage for his RMI. In the retelling, he contradicts both the substance of the passage and himself several times. WM does not handle meaning well, whether he is involved in deriving meaning from print in reading, or encoding meaning into print in writing. This difficulty should be addressed in teaching WM both reading and writing strategies and in teaching them together.

These two case studies provide much detail concerning the problems that two individual students have with text. These cases offer a preliminary confirmation of my hypothesis: there is a relationship
between specific kinds of writing and reading problems. Additional case studies and RMIs may yield a body of data that can be analyzed statistically and that might produce firm evidence of correlations between specific reading and writing problems. Although the data provided here are only suggestive, writing teachers need to recognize the relevance of reading to writing and to begin to integrate the relationship in their teaching.

Teachers might achieve this integration of reading and writing by using a collaborative approach in a developmental class. The teacher can ask students to do their own analyses of the writing problems, perhaps exchanging with one another. When students alternate between being writers and being readers, the shifts in focus can help them see their own writing from both perspectives. Students who learn about readers' needs for structure and predictability in text in these ways are likely to become better writers.

A second course of action, suggested by both the Goodmans' research and Bartholomae's study, is to have students conduct RMI-type exercises and analyses of their writing. The concept of "miscues" removes the attitudinal and emotional stigma of error and could lead students to greater independence and effectiveness as readers and writers. In the long run, students need to become capable of making their own judgments in reading and writing: such independence in relation to text is a significant definition of literacy.

A third possibility which can support both of the preceding approaches is to use a text that incorporates a specific reading-writing focus. An excellent example of the sort of text I have in mind is Readers as Writers by Kate Kiefer. This text, which includes readings, asks student writers to consider the nature of the reading process and ways in which they respond to the texts. This awareness becomes the focus of writing exercises provided in the book. The readings, including student work, are very well chosen; an instructor wanting a text that builds reading strongly into written work should find the book an excellent support tool.

The two cases discussed here lend support to the proposal made at the outset, that writing miscues can be an appropriate way to analyze writing errors in a reading context. Students' writing can be examined for such systematic errors, and such examination might lead to the development of a Writing Miscue Inventory to parallel the RMI already developed and highly regarded in reading studies. The inventories might be used together, to gain insight into the nature of the individual's processes and strategies for dealing with text, and to diagnose weaknesses in those strategies that warrant instruction. Instead of identifying errors like run-ons, a Writing Miscue Inventory would show the patterns writers are using, and their strengths and weaknesses in helping readers get meaning from their texts. Remediation of writing problems must accompany remediation of reading problems in cases like the ones described here. The concept of writing miscues, in conjunction with reading miscues, may help teachers assist students toward becoming proficient writers.
Table 1

Case 1: BC

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<th>Reading Comprehension Test</th>
<th>Raw score 15/45=33%</th>
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<td>Percentile</td>
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Reading Miscue Inventory (RMI)

<table>
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<th>Description</th>
<th>Percentage</th>
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<tr>
<td>Total miscues</td>
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<tr>
<td>Sentence boundaries with</td>
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<td>inappropriate intonation</td>
<td>29%</td>
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<tr>
<td>Grammatically inappropriate miscues</td>
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<td>Weakness in grammatical relationship</td>
<td>46%</td>
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<td>Overall loss of comprehension</td>
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<td>Retelling score</td>
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Writing Sample

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</thead>
<tbody>
<tr>
<td>Inappropriate sentence boundaries</td>
<td>46%</td>
</tr>
<tr>
<td>Inappropriate syntactic relationship</td>
<td>34%</td>
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Table 2

Case 2: WM

**Reading Comprehension Test**

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<th>Raw score 16/45=36%</th>
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<tr>
<td>Percentile 7</td>
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**Reading Miscue Inventory (RMI)**

<table>
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<th>Description</th>
<th>Percentage</th>
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<td>Total miscues</td>
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<td>Semantically inappropriate miscues</td>
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<td>Miscues which alter meaning</td>
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<td>Retelling score</td>
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Works Cited


