Experience writers rework their papers again and again. Novice writers correct the spelling. This paper is about the kind of radical transformations—the "re-visions," restructuring, and seeing anew—that experienced writers are able to make, and how teachers can help students learn the same skills. Mina Shaughnessy showed that when basic writers are encouraged to simply reread their prose, they can learn to spot and correct significant problems (Shaughnessy, 1977). I want to talk about the next level of revision above correction, that is, the kind of revision that reorganizes or restates one's ideas in recognition of the needs of a reader.

Most real world writing situations call for reader-based prose; that is, the writer is asked to adapt what he knows to the rhetorical problem at hand. For example, when a teacher writes a student recommendation, his task is to review the large body of information he has about the person and to select those key features which are both true of the student and important to a prospective employer. In such a letter, the writer is in an unstated contract with the reader, adapting his knowledge to both the reader’s needs and his own goals. Because of this contract or because the teacher knows the conventions of recommendation writing based on it, he mentally reviews the student’s class participation, late papers, improvement over the term, and so on, and tries to transform that information into a few ideas such as "a responsible person" or "thoughtful critic of her own work."

It would be easier, of course, for the teacher simply to record his mental review of the student and list thoughts as they come: (He started out the term doing flashy theme talk. He did a terrific revision on his last paper,

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but it was downright terrible to start with.) Or he could tell the story of
getting to know the student or deciding on his grade for the course. The
teacher could do this, but he probably would not. Instead, he would sit at
the typewriter, mentally listing ideas, and following out the narrative of
his experience, but trying to write an analysis organized around concepts
and facts the reader would want to know.

WRITER-BASED PROSE
The distinction I wish to make here is between reader-based prose,
which takes the reader into account, and what I call writer-based prose,
prose in which the writer is essentially talking to himself. Since the notion
of writer-based prose has been discussed at some length elsewhere, let me
summarize it here (Flower, 1979). In its narrative and/or survey structure
and its elliptical style, writer-based prose reflects the interior monologue
of a writer thinking and talking to himself. Its roots lie, no doubt, in the
inevitable egocentrism of children and adults. However, let me stress that
writer-based prose, which is regularly written by adults of all ages, is not
evidence of arrested cognitive development. Children may have no choice,
but for adults, writing to oneself is better understood as merely an easier,
highly available mode of thought. Reader-based prose is, by contrast,
often quite difficult to do. Furthermore, being able to write reader-based
prose often means being willing and able to revise—a skill many students
lack (Sommers, 1980). For example, if the task is a difficult one such as
writing a first or complex letter of recommendation, it is often easier and
more efficient to express ideas in the less constrained mode of writer­
based prose and then to revise with a reader in mind—if, of course, one
knows how to revise for a reader. Writer-based prose, then, is inadequate
for the reader, but easier for the writer, and on difficult tasks it can
represent an efficient first step in the writing process.

The kind of writer-based prose that appears in both student and
business writing has two distinctive features. The first is its egocentric
focus, centered on the writer—on what he did, thought, or discovered.
Second is its structure. Often this structure is narrative; the organization
of ideas reflects the writer’s own thought process: we are given, for
example, a narrative of the writer at work reviewing his or her first
impression of the student, followed by second thoughts, a sudden
realization, and so on. An alternative to narrative is a survey structure:
the writer simply surveys the information at hand, borrowing whatever
structure it may have. For example, our writer could have just gone down
his record of paper comments and listed features of the student as they
were organized by the record, his information source.
Egocentric narratives and surveys make a lot of sense from a writer's point of view. Psychological studies show they are very economical strategies for remembering and presenting information. We use narratives and surveys to think about the topic, to discover what we know, to explore our own knowledge. However, as writers we must then go one step further and transform or restructure that knowledge of a topic around a goal we share with the reader.

Ideally, we would all write reader-based prose from the beginning, and sometimes we can. Yet for all of us, first drafts often turn out to be more writer-based than we would wish. This, I think, is a normal state of affairs. As a result, a critical skill in writing is learning how to transform writer-based prose into reader-based prose as a part of composing. This means that as teachers we can recognize an inadequate first draft as a major accomplishment—and tell the student so. But at the same time we can show writers how they must then go one step further in order to talk to the reader instead of themselves.

Let me stress that a writer-based draft is not a “stage” we should particularly encourage; it is, rather, a fact of life that we should accept, and help our writers learn to recognize and to move beyond. Obviously, writers should do their initial or global planning with the reader in mind, but integrating the reader into moment by moment decisions during the act of composing is a different matter, especially when this means transforming ideas held in a narrative structure in memory into an issue-centered paragraph on paper. Furthermore, if the writing problem is difficult, such as writing a long complex article or the writer unskilled, it often makes sense to reduce some of the constraints the writer must juggle while composing. Teaching students to revise for readers, as a separate and therefore more serious operation, can then aid the initial composing process and at the same time suggest how important it is to consider the reader overall.

REVISING WRITER-BASED PROSE

One advantage of teaching students to spot their own writer-based prose is that once they see it, they can often revise it. Asking them to transfer some of the well-developed sense of audience they probably have in speech to the task of writing often taps skills students have but do not use when they write in school. It is also our job as teachers to make these good intuitions about writing explicit and teachable. So the rest of this paper will discuss two of the thinking processes or skills which underlie reader-based revising and suggest some practical ways to teach these skills. The first process or principle in reader-based revising is simply

64
taking the needs of the reader into account. The second is creating an issue-centered organization of ideas based, in part, on those needs.

**Taking the Reader into Account**

How do writers, in the act of composing, actually deal with their audience? In a recent study, John R. Hayes and I found some striking differences in the way expert and novice writers represented the audience to themselves as they wrote (Flower and Hayes, 1980 a). Having writers compose out loud before a tape recorder—that is, asking them to articulate everything that flows through their minds as they compose—gives us a unique window into the composing process. The transcript of this session, called a composing protocol, contains a rich and detailed record of the ideas and language that entered into the writers’ composing process. Although all our writers had the same assignment (“write about your job for the readers of *Seventeen* magazine, thirteen to fourteen-year-old girls”), the expert writers spent much more time than did the novice writers thinking about their audience: what would interest them, what they knew or did not know, how they might respond to the writer’s own statements. In the process of writing, the experts developed a rich, detailed image of their reader and her needs. By contrast, the novices created little more than a stick figure: they spent less time thinking about the reader and rarely went beyond conventional features such as “Fourteen-year-old, better keep it simple.” This difference in representation is important because writers solve only the problem they represent to themselves. The expert writers constructed for themselves a flesh and blood reader with needs and interests. This rich representation not only allowed them to respond to the real rhetorical situation, but it also helped them generate ideas about their jobs that were appropriate to the assignments. To sum up, the important part of writing for readers is not something as vague as merely feeling empathetic, but it is the concrete, time-consuming task of thinking about those readers and what they need.

It appears that teachers can have a significant impact on the amount of reader-based planning writers do. In working with four groups of subjects from fourth grade through college, for example, Bracewell, Scardamalia, and Bereiter found that by specifying the audience more exactly and creating the possibility of feedback from readers, they could significantly improve the writer’s tendency to decenter and to consider the needs of the audience (1978). This suggests that in order to tap higher rhetorical skills, we need to replace vague assignments such as “write for a group of peers” with real rhetorical situations such as “write a feature article for the college paper. The class will play the role of Feature Editor who decides
whether to accept your article, and they will play themselves, a group of students who only read features which offer something they want to know."

Creating realistic assignments with real audiences will sometimes have a powerful effect on the writing of our students, but sometimes it will not. In a recent study comparing expert writers to basic writers in a community college, Marshall Atlas (1979) wanted to see where this problem lay: did the writers simply not understand what the reader needed to know, or did they understand the situation and simply ignore the reader when it came to writing? In this case, the writers all had the same background information about a proposed bus system for handicapped people, and all had to respond to a worried letter from the Handicapped Citizens Group.

The question seemed straightforward: Would the writers simply describe the proposed bus system as it had been described to them? Or would they write to the reader, where writing to the reader meant including certain key ideas found in the briefing information but not in the standard description of the new bus system? In the initial version of the experiment, seventy percent of the expert writers showed they were aware of the readers’ worries by including these key ideas, whereas only fifteen percent of the basic writers did. Therefore, Atlas reran the experiment, adding a questionnaire to find out if the basic writers really understood the situation. In this version of the experiment, Atlas found, first of all, that half of the writers did not really understand what their readers wanted; they had not adequately interpreted the letter from the Handicapped Citizens Group. Second, even when the writers had understood the readers’ needs, had answered questions about them, and had been encouraged to consider the audience, they still failed to use this knowledge when they actually wrote the letters.

Why do writers who know the reader's needs and have been encouraged to respond to them still fail to do so? This is an important question since it suggests the limits of what teachers can do with good assignments and encouragement. In his study, Atlas suggested that the writers were behaving like students attuned to repeating whatever had been given them and, as a result, were so heavily dependent on the standard description that they failed to include the “extraneous” information found in the briefing. In other words, the writers were using the survey strategy of writer-based prose and were unwilling to deviate from the information being surveyed. However, “unwilling” is, perhaps, the wrong word here. As Scardamalia and others have noted, writing forces people to juggle a number of constraints or demands at the same time (Scardamalia,
1981, Flower and Hayes 1980 b, Nold 1981). When the task is familiar, or the skill well-learned, we can handle multiple demands simultaneously --- handwriting, spelling, grammar, syntax, connections between ideas, our rhetorical plan, and even the audience. But for novice writers, producing correct grammar, much less considering the audience, may be an excessive demand. It may, in fact, create what psychologists call a cognitive overload. Therefore, when the writing task is unfamiliar or complex, it makes sense to help beginning writers break up the problem, allowing them to deal with the reader as a special task or independent process, much as Shaughnessy and other teachers have done with editing.

To sum up, the first principle in transforming writer-based prose into reader-based prose is taking the reader into account. However, knowing about the reader is not the same as actively responding to that reader. Creating vivid, realistic assignments centered around a clearly defined "real" reader is a first step in leading students towards reader-based prose, but the second step is actually affecting the writers' composing process; that is, getting writers to respond to that reader actively in the act of writing itself. At the end of this paper, I will suggest some teaching techniques that can help writers do this.

Creating an Issue-Centered Structure of Ideas

The second principle in transforming writer-based prose is transforming a narrative or survey into an issue-centered organization with a hierarchical structure. In practice, this means the writer must first isolate the key points or controlling ideas which will stand at the top level of his or her hierarchy of ideas, just as a topic sentence stands as the most inclusive, top-level idea of a paragraph.

For most writers, being able to isolate, much less articulate, one's own key ideas is no simple task, and that is why working from a writer-based draft with its simple organization can be a good starting point; it lets the writer get ideas down on paper and then ask, "What are the main points I want a reader to remember from my discussion or from this paragraph? If I had to say it all in one sentence, what would I say?" By introducing a reader or listener who wants to hear the main idea, we help students to draw on familiar strategies they use in speaking and to apply them to the task of writing an organized, issue-centered paragraph or paper.

Creating a hierarchically organized piece of writing with its main ideas articulated and developed can be difficult for all of us. So it is important to let students know that even experienced writers go through multiple drafts, not simply correcting errors, but reorganizing ideas and sharpening their focus.
TEACHING REVISION STRATEGIES

There are at least three teaching techniques teachers can use to help students to revise their drafts and to write prose that has a reader in mind. Two principles lie behind these techniques. The first is to help the writer become vividly aware of a real reader with real needs. And the second, to increase the student's repertoire of specific revision techniques, such as writing a draft and then revising it or transforming a narrative to a hierarchical structure.

Strategy 1. Give assignments which specify or have students specify a real-world purpose and a realistic audience. For example, students are often asked to respond to a vague "college theme" assignment, such as, "Write about a sport you like." A real-world assignment might pose a problem such as the following: "The college athletic department is often asked for information and advice on popular sports such as tennis and running, so they have decided to put together a resource book that covers equipment, training, how to find courts, or jogging routes and so forth. Below is a list of the topics they wish to cover. Pick one you know or can find out about and write a brief discussion which is designed to answer the question a person who is new to this sport might ask. Keep in mind that the reader will be using your writing to make a decision on a question, such as, 'What kind of shoe should I buy?' Make your writing useful to your reader." Creating an assignment such as this helps writers evaluate their own writing against some standard more concrete than simply "good" or "well-organized" writing. It helps both writer and reader talk about what a "good organization" would be by setting up a realistic purpose for the finished product.

Strategy 2. Help students set up a mutual goal which both the reader and the writer can share. Earlier in this paper, I reviewed studies which suggested that assignments which specify the audience in some detail sometimes have a dramatic effect on writing, but not always. Knowing about the readers' needs is not always enough; the writer must integrate that knowledge into the process of composing. Getting students to set up a mutual goal, to sketch out such a plan, does this in two ways. First, it encourages writers to actively consider what they want to accomplish by writing the paper, and what readers want to get out of reading it. Then, once the writer has managed to find a mutual goal, such as "Choosing the Best Running Shoe for Your Needs," this idea forms the top-level idea of the writer's hierarchy. It provides the controlling idea around which the writer can organize subordinate ideas and write the paragraph or paper.
Setting up a mutual goal and sticking to it helps the writer integrate an active consideration of the reader into the process of writing and organizing sentences. The exercise below clarifies for students what establishing a mutual goal involves.

EXERCISE

In this assignment, you are to find a mutual goal for your reader and yourself as a writer by working through a writing problem (Flower, 1980). From the writer’s point of view, there are two reasons for trying to create this goal. First, it fulfills part of an unwritten contract in which you promise to adapt your knowledge to the reader’s needs in return for being read. Second, organizing ideas around a mutual goal is a powerful strategy for motivating readers and making sure they comprehend and remember what you have to say. Imagine the following situation:

You have just been commissioned to write a short booklet on preserving older homes and buildings, which the City Historical Society wants to distribute throughout an historical section of the city. Most of your readers will simply be residents and local business people. How are you going to get them, first, to read this booklet and, second, to use some of its suggestions?

Consider how you would present your knowledge to these readers. Try to draft a short introductory statement which sets up the framework for your booklet. Consider your goals and your readers’ needs as you prepare this statement. Then compare your introductory statement and its mutual goal with the ones below and test them with the criteria which follow.

Examples of Three Introductory Statements

A. This booklet will help you create civic pride and preserve our city’s heritage. In addition you will be helping the Historical Society to grow and extend its influence over the city.

B. This is a booklet concerned with civic restoration and maintenance projects in designated historical areas. It discusses the methods and materials approved by the City Historical Society and City Board of Engineers.

C. If you own an older home or historical building, there are a number of ways you can preserve the beauty and historical value of your building. At the same time you can increase its market value and decrease its maintenance costs. This booklet will show you five major ways to improve your building and give you step-by-step procedures for how to
do it. Please read the booklet over and see which of the suggestions might be useful to you.

Criteria for Evaluating a Mutual Goal

A. Will this approach and organization of ideas motivate your audience to read and remember what you have to say? Is your article going to solve some problem your reader faces or achieve some end he or she really cares about? Do not appeal to vague wishy-washy generalizations such as "our heritage," unless they matter. Use your knowledge to fill some need your reader really has. Or think of this as a professional situation: Your reader has ten letters and five reports on her desk this morning. Your mutual goal should tell her why she wants to read your report first and read it carefully.

B. Will your mutual goal increase comprehension? People understand and retain information best when they fix it into a framework they already know. For example, the context of "home repair" and "do-it-yourself" would be familiar and maybe even attractive to your readers. They would find it easy to fit your new ideas into that established framework. By contrast, if you defined the goal as "architectural renovation" or "techniques of historical landmark preservation," you would probably be understood by members of the Historical Society, but you would have missed your primary audience, the local readers. They would probably find that context not only unfamiliar but somewhat intimidating. Offer your readers a context or framework that helps them see your ideas in their terms.

C. Will your mutual goal make something happen? If you want to produce writing that makes something happen, that makes people understand the value of old buildings or even do something to preserve them, you must be clear about what you want the reader to do. Instead of simply setting up a "topic" such as building renovation, a mutual goal organizes your knowledge around something both you and your reader want to do. It helps you to be more purposeful as you write. Is your goal something you and the reader actually want to do?

Strategy 3. Ask students to simulate a reader’s response to their own writing. In our studies of the composing process, one thing which has distinguished the expert writers from the basic writers is their ability or tendency to imagine how their reader would respond to what they have just written (Flower and Hayes, 1980 a). In the act of composing and revising, they step out of their own role and test individual sentences by imagining what a reader might say or think.
Below is an example of a writer-based paragraph that needs revision. It combines not only an egocentric focus and a narrative structure, but concludes with a list-like survey of the facts which the writer happened to know about running shoes. Although this survey happens to be structured like a list, such a survey can take any form because it is simply borrowing the structure inherent in the writer’s source of information.

**Writer-Based Draft**

Like many people, I started running two years ago. Running offers recreation and body conditioning at limited expense. The first thing a runner has to do is decide which shoes to buy, but the problem is knowing what to look for. Shoes are the most important part of your equipment so choose them well. First, there are various kinds. Track shoes are lightweight with spikes. Road running flats, however, are sturdy, with ½” to 1” of cushioning. In many shoes the soles are built up with different layers of material. The uppers are made in various ways, some out of leather, some out of nylon reinforced with leather, and the cheapest are made of vinyl. The best combination is nylon with a leather heel cup. The most distinctive thing about running shoes is the raised heel and of course, the stripes. Although some tennis shoes now have stripes, it is important not to confuse them with a real running shoe. All in all, a good running shoe should combine firm foot support with sufficient flexibility.

For example, one could imagine the following sets of responses to the running shoe paragraph:

<table>
<thead>
<tr>
<th><strong>Writer’s Statement</strong></th>
<th><strong>Reader’s Response</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Like many people, I started running two years ago.</td>
<td>So what? And what is important about two years ago?</td>
</tr>
<tr>
<td>Running offers recreation and body conditioning at limited expense.</td>
<td>Yawn. That sounds more like a college catalogue course description than something I would do for fun.</td>
</tr>
<tr>
<td>The first thing a runner has to do is decide which shoes to buy, but the problem is knowing what to look for. (and so on ............... )</td>
<td>Wait a minute, you just told me this was cheap. Why do I have to buy shoes?</td>
</tr>
</tbody>
</table>

From the point of view of a reader who needs to know something, this paragraph raises a lot of questions, such as “How do I finally decide between leather, nylon and vinyl?” and “How do I know sufficiently
Good writers frequently test their writing as they compose, imagining a reader's response to a given word or statement and revising it accordingly. Clearly, the ability to form a sensitive simulation of a reader's response depends in part on the student's ability to read and interpret prose. But for basic writers, classroom practice in simulating responses and in comparing imagined and real responses often serves a basic function of simply creating an awareness that responding readers do exist.

The following revision of the running shoe paragraph has changed in both its organization and its content, but the basis of the revision is not mysterious. The writer has transformed this paragraph by recognizing its writer-based structure and setting up a mutual goal which helps him organize his ideas around an issue in which both he and the reader are interested. Second, he has imagined how a reader might respond to the first draft, the questions he might ask, and has used his knowledge to answer the reader.

Reader-Based Revision

Choosing a Running Shoe

Many people take up running because it is fun to get hot and sweaty and to feel in good shape. But running is only fun if you take care of your feet. Your running shoe will be your most important piece of running equipment, so look for a shoe which both cushions and supports your foot. Track shoes, which are lightweight and flimsy, with spikes for traction in dirt, won't do. Neither will tennis shoes, which are made for balance and quick stops, not steady pounding down the road. A good pair of shoes starts with a thick layered sole, at least ½" to 1" thick. The outer layer absorbs road shock; the inner layer cushions your foot. Another form of cushioning is the slightly elevated heel which prevents strain on the vulnerable Achilles tendon.

The uppers, which will support your foot, come in vinyl, which is cheaper but can cause blisters and hot feet; in leather, which can crack with age; and in a lightweight but more expensive nylon and leather combination. The best nylon and leather shoes will have a thick, fitted leather heel cup which keeps your foot from rolling and prevents twisted ankles. Make sure, however, that your sturdy shoes are still flexible enough that you can bend 90° at the ball of your foot. Although most running shoes have stripes, not all shoes with stripes can give you the cushioning and flexible support you need when you run.

It is clear that what I have been describing exemplifies a high-level form of revision or "re-seeing." When it goes on in our heads before we commit
words to paper, we call it thinking and organizing. When we do it slightly later and on paper, we call it revision. The critical skill here is being able to organize what one knows with a reader in mind. It is this basic thinking process which counts, not the point at which the writer performs it. Even expert writers find that they must often organize information for the reader in stages, partly before they write, partly after they have written a draft. For the basic writer, the process of developing information may be a formidable task of itself, so that separating that task from the process of shaping information for the reader can be a helpful and sometimes necessary simplification. Taken together, the skills of conceptualizing a reader and his needs, establishing a mutual goal, and simulating reader reactions suggests that writing for readers is a complex, high-level skill, but one that teachers can break down into manageable, teachable parts that students can tackle successfully.

REFERENCES


