To do academic work, basic writers must know how to use the forms that express mature thinking. Accustomed to the demands of speech, basic writers often rely on unspecified context to relate ideas, thus failing to establish the connections evident in well-developed thought. While able to use certain cohesive ties such as repetitions, demonstratives, and associated terms, basic writers are less skillful with such manipulative ties as developing a comparison or contrast through contrastive conjuncts. In other words, they are less able to form their thoughts into extended rhetorical patterns. To help them learn to use the forms that express complex relationships, teachers might first direct students to sharpen their vague communicative purpose, then focus on the mental processes required for the specific purpose, and provide a structured sequence of exercises to develop and practice those processes. At the same time, teachers could provide instruction on the grammar and punctuation used in those rhetorical forms. To help students create consumer reports, for example, teachers might provide instruction in the comparison-contrast framework. Exercises that familiarize students with this mode include asking students to identify similarities or differences among a list of items, sentence combining exercises based on original observations of comparison, and work with synonyms. (A list of ways to develop ideas with words is included.)
THE FORM OF THINKING FOR BASIC WRITERS

Carolyn G. Hartnett
College of the Mainland
2027 Bay Street
Texas City, TX 77590

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THE FORM OF THINKING FOR BASIC WRITERS

In order to do academic work, basic writers must know how to use the forms that express well-developed mature thinking. Learning how to use those forms is a part of learning how to fill them, but only theoreticians would abstract form from content. Practical teaching combines the form and content of thought. This article first defines thinking; then it describes the strengths and weaknesses of the expression of thought by basic writers; next it identifies some of the significant forms that structure thought; and finally it suggests a general process for teaching the skills and forms of written thought and illustrates the teaching of one type, comparison-contrast.

Thinking is more than just another heuristic device for discovering or inventing what to write. Cognitive psychologists define thinking as manipulating an internal representation of environment. That representation is depicted as a hierarchical network in models of memory and comprehension. Linda Flower and John R. Hayes say that a writer plans by creating a network of working goals ("A Cognitive Process Theory of Writing," College Composition and Communication, Dec. 1981, 32, 365-387). Thinking is realizing the relationships of a network; it means visualizing and specifying how things are or could be related. The things to be related could be shapeless notions in the mind, solid objects, symbols, subjects and predicates, clauses and paragraphs, or a problem and elements selected from context to solve that problem. Relationships include various degrees and points
of similarity, changes through time, causation, parts of a whole, and concrete examples of an abstract classification. Writers first pay attention to a topic and then manipulate it, formulating its relationships.

Basic writers come to us with lifetime experiences and strong habits of speech in one language or another. Often, however, they confuse knowledge, speech, and thought. Like all of us, they have a conscious stream of internalized speech. They relate ideas in the sense that to relate means to tell, but not in the sense that to relate means to specify a connection. Basic writers also confuse thought with opinion, and, like all of us, they make judgements based on incomplete data.

Since basic writers are human, they have motives and purposes. When they must write, they actually do have some rhetorical goal, although it is vague and undeveloped. In terms of the top-bottom metaphor, they are vaguely aware of a goal in the top surface, and they expect in a basic writing course an emphasis on bottom details of grammar, punctuation, and spelling. However, the basic writers that I see are not aware of any connection between the top and the bottom. They have a good sense of beginning, middle, and end, but few other organizational skills. Their heuristic devices are limited to brainstorming and library research, by which they mean copying excerpts from the Reader's Digest or an encyclopedia. They restrict their written expression to subject, predicate, modifiers, and mechanics. That is a fine start, but they stop too soon. Sometimes they forget the stated subject even before they reach the predicate.
Since basic writers are accustomed to the demands of speech, they keep moving, adding some new subtopics and relying on unspecified context to relate them. Because they jump from one subtopic to another, their writing seldom holds a focus long enough to develop depth. Since they have not specified the relationships among the subtopics, the writing seems thoughtless. Often basic writers apologize for writing slowly; they do not realize that mature writing must be done slowly in order to allow time for reflective thought, objective distance, and revision, so that it can be complex, complete, precise, and enduring to an extent not possible for oral language.

Consider this example of writing by a typical basic writing student. Between the introduction and conclusion I have underlined some of the cohesive expressions that hold attention on a topic in another sentence, because paying attention to a topic is the beginning of thinking about it. Note the repetitions (to study hard), the demonstrative pronoun (this), the associated terms (schedule, hours, time), the general term or hierarchical classification (place including home and school), and the parallel structures (if one studies at home, he would paralleling If one chooses to study at school he should).

In order to have good study habits, one should be aware that, in order to get good grades he have to study hard. To study hard one should set up a schedule to study, without interfering with his work or sleep. To do this one could write down his work hours and his class hours, and the time that he has
left should be used for study. Therefore, one should study in a quite place where there is no one to distract his attention away from his work. However, I would suggest that if one studies at home, he would do so in a quite room without the T.V. going or the radio on. If one chooses to study at school he should avoid being around friends. These study habits are good advice to a freshman in college. Take my advice I know.

The underlined repetitions, demonstratives, associated terms, and parallel structures are cohesive ties that hold attention on a topic; all but parallel structures are classified in Halliday and Hasan's *Cohesion in English* (Longman, 1976). Other ties that hold attention are third person pronouns (like they), synonyms and near-synonyms, general terms (such as the little creature), substitutions (such as ones), ellipsis (as with if not), and all of the additive conjuncts (also, furthermore, etc.). Basic writers are usually acquainted with such devices and attempt to use them, although not always perfectly. Pronoun reference, for example, may be questionable, and synonym choice may be whimsical.

Halliday and Hasan described also some other cohesive ties that seem harder for basic writers to use. These ties express important relationships and manipulate ideas for rhetorical development. Different rhetorical purposes use different types of ties:

Definition begins with superordinate lexical classifications.
Examples need lexical terms more specific than the original item.
Comparison and contrast writing uses contrastive conjuncts (like however) and comparative reference forms of adjectives and adverbs.
Narration uses temporal conjuncts (such as next) and sequences of verb tenses.
Inference and logical reasoning use conjunctive adverbs of cause and effect (like therefore) and hierarchical classifications (such as the distributed middle term in a categorical syllogism).

These types of expressions, which we can call manipulative ties, shape thinking into the forms of rhetorical patterns. Extended thought may be possible without manipulative ties, but proper use of them always indicates extended thought.
The cited example of basic writing (above) included none of these manipulative ties correctly used except for place, which might be treated as either a classification or a general term. In the example, therefore and however were misused, since they did not introduce the result or the contrast that they signal. Such misuses are common when basic writers ambitiously attempt what they have not yet mastered.

Misused or not, cohesive ties are important because they are the linguistic forms that give written English language the capacity for the development of thought by relating ideas or expressions beyond a sentence boundary. The first easy group of ties holds attention on a stated topic, and a wide variety of these attention ties seems desirable. Such
variety, however, might characterize thoughtless dull repetition that is not worth reading, yet is very cohesive and coherent. The ties in the second group, the manipulative ones that structure thought, seem to be more difficult to use and recognize. They are rarer because too many would begin undeveloped tangents. This distinction of the attentive and manipulative functions of cohesive ties may account for the research findings that show a positive but low correlation between writing quality and the use of cohesive ties (Stephen P. Witte and Lester Faigley, "Coherence, Cohesion, and Writing Quality," CCC 32 [May, 1981], 189-204).

Evidence of the difference and difficulty of attention and manipulative ties developed from a study that provided the example quoted above. In 158 holistically-rated essays by basic writing students in a community college, trained tabulators cited 585 instances of students using different types of attention ties and 300 instances of different types of manipulative ties. The 29 essays rated best and the 19 rated worst attempted the same types of ties ($r = .92$, $p < .01$). Pairs of tabulators agreed on classifying 68% of the citations for attention ties in the best essays and 65% of the attention citations in the worst. However, the figures for manipulative ties show that tabulators agreed on only 50% of the citations in the best essays and just 17% of the manipulative citations in the worst papers (C. G. Hartnett, "How Cohesion Expresses Thinking," Journal of the Linguistic Association of the Southwest, Spring, 1983). See the table of "Use of Subtypes of Cohesion and Percent of Single Observations."
## Use of Subtypes of Cohesion and Percent of Single Observations

<table>
<thead>
<tr>
<th>Attention Ties:</th>
<th>Frequency of Usage</th>
<th>Best Papers Usage</th>
<th>% Single</th>
<th>Worst Papers Usage</th>
<th>% Single</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same word</td>
<td>157</td>
<td>28</td>
<td>11</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>Association</td>
<td>152</td>
<td>29</td>
<td>10</td>
<td>17</td>
<td>24</td>
</tr>
<tr>
<td>Demonstrative</td>
<td>87</td>
<td>21</td>
<td>52</td>
<td>9</td>
<td>33</td>
</tr>
<tr>
<td>Pronoun</td>
<td>76</td>
<td>14</td>
<td>64</td>
<td>12</td>
<td>50</td>
</tr>
<tr>
<td>Additive Conjunct</td>
<td>60</td>
<td>10</td>
<td>20</td>
<td>8</td>
<td>75</td>
</tr>
<tr>
<td>Parallel Structure</td>
<td>30</td>
<td>9</td>
<td>89</td>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>Noun Substitute</td>
<td>15</td>
<td>3</td>
<td>33</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Verb Substitute</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>General Word</td>
<td>3</td>
<td>1</td>
<td>100</td>
<td>0</td>
<td>--</td>
</tr>
<tr>
<td>Clause Substitute</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>--</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>585</strong></td>
<td><strong>118</strong></td>
<td><strong>32</strong></td>
<td><strong>69</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manipulative Ties:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequence of Tenses</td>
</tr>
<tr>
<td>Higher Classification</td>
</tr>
<tr>
<td>Contrast Conjunct</td>
</tr>
<tr>
<td>Continuative Conjunct</td>
</tr>
<tr>
<td>Consequence Conjunct</td>
</tr>
<tr>
<td>Comparative</td>
</tr>
<tr>
<td>Temporal Conjunct</td>
</tr>
<tr>
<td>Causal Conjunct</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>
Since basic writers, like the one who wrote the example, need to manipulate and develop their ideas rhetorically, they need to learn to use (and punctuate) the forms that express complex relationships. An idealized sequence for an instructional unit might be as follows. First begin where the students are, with a vague communicative purpose. Discuss the purpose, narrow it, sharpen it. Then consider the mental processes required for the specific purpose, and provide a structured sequence of exercises to develop and practice those processes. At the same time, provide instruction on the mechanics of grammar and punctuation that are used in expressions of the processes.

As much as possible, try to recognize the teachable moment to incorporate instruction and exercises in the entire writing process. Use some rough plan, such as a list, outline, chart, or drawing, to note information already known. (Any library research would have to be processed eventually in the same manner.) Consider the audience, and add notes of whatever the readers need. Plan how to arrange the information in an order appropriate to the rhetorical purpose; fill in any gaps in the order. Complete a draft. Consider methods of tying the information together with manipulative as well as attention ties. Add further information that the ties generate. Then delete duplications and anything that the audience does not need. Wait a while; then revise and recycle as needed, and edit.
When students consciously attempt to insert cohesive devices, especially manipulative ones, they have a strategy of something specific to do during revision, and they must reconsider the relationships among their ideas. When the students specify completely what an idea relates to, they are making their writing clear and complete so that it can communicate without depending on context. In other words, they are using the expressions that indicate thought to develop their oral form into a literate form.

As an example of the instructional process, consider a unit on comparison-contrast, with the goal of a consumer report. The audience is to be persons with needs similar to the writer's needs, people who are in the market for the product. We refer to the Consumer Reports magazine and begin considering appropriate interesting topics. The first unique step in the thinking required for comparison-contrast writing is seeing similarities. Since we are thinking in terms of purchases, we begin by listing items that would be on the shelves in various sections of a store. This simple classification exercise prepares for a more complex one of the type often found on intelligence tests. Each question presents five words or drawings; the response is to write telling how the first four symbols are alike and how the fifth contrasts. Of course variations of this type of item (called Bongard problems) serve different purposes and can cover a surprising array of data. Bongard problems force students to analyze their perceptions for similarities and differences, to stretch their memories, and to relate details. They also motivate communication and thus are more effective than non-communicative drills on form alone.
Bongard problems review some grammar already covered earlier in the semester: the temptation to begin a sentence with a vague pronoun, and subject-verb agreement when the subject is a list or an expression such as "the first four." The major focus of instruction here, however, is proper separation of two related clauses—a period, a semicolon, a coordinate conjunction with a comma, or some subordination strategy, such as using except and a clause beginning with which. Some students settle on a single pattern such as a semicolon with however, glad to practice it appropriately in ten reasonably interesting good sentences. Within this context they see the value of the manipulative ties for completeness, clarity, and emphasis.

When students need other practice seeing similarities, they can find synonyms for "win" in sports headlines and can explain the meaning of the names of teams. (Reports of scores are usually present tense examples of subject-verb agreement.) This exercise has caused some students to start reading newspapers, a further benefit.

Other elements of comparison-contrast writing which need teaching and practice are comparative forms of adjectives and adverbs, ways to avoid the ambiguity of incomplete comparisons (exemplified in many misleading advertisements), and use of negatives (forms for contractions and the usual limit of one negative or near-negative per clause, for easy reading). Methods for teaching these traditional forms naturally vary with the preferences of the class: puzzles and games, charts, lectures, exercises, etc. The important feature of the
instruction is its context of a comparison-contrast report. Students see a need for distinguishing between almost and barely when they need to communicate a concept of minimum accomplishment, although initially some may consider the terms synonymous.

Interesting practice can include sentence-combining exercises based on original observations of comparison; some topics for writing include comparing oneself with an object or an animal and contrasting oneself now with the self expected five years in the future. These topics can be related to consumers' needs, and we are back to work in earnest on the consumer report. We demonstrate how to make a chart of features of each item investigated and then how to organize the data on the chart into paragraphs. Students experiment with several patterns of organization in their drafts, and then they revise and edit.

This whole procedure suits many rhetorical aims. Narration, for example, can begin as a list of instructions for making a repair. The list becomes an outline for a story of someone who had reason to follow the instructions, a story that utilizes past-tense verbs, time-order sequence along with its signals, and expressions of cause and effect. A later and more advanced assignment might be abstract writing about the repair process.

In all of this work, student writers consciously use the signals that specify the relationships among their ideas, expressing their thinking in literate form. By focusing
instruction on the expressions that structure thinking by specifying the relationship of ideas, we are teaching students the methods of rhetorical development. Until basic writing students learn how to use forms for extending and developing thought, the shapeless green ideas in their heads will remain sleeping instead of becoming communications that are worth reading.

The following list of "Ways to Develop an Idea with Words" outlines for students a basic writing improvement course taught at College of the Mainland, Texas City, Texas, using the textbook, Tying Thinking to Writing by C. G. Hartnett.
Ways to Develop an Idea with Words

1. Focus attention on a topic to observe and describe it, using these kinds of words:
   A. Pronouns: they, it, he, she, them, him, her, their, his, hers
   B. Demonstratives: this, that, these, those, the
   C. Repetitions (using the same root again)
   D. Synonyms (words with similar meaning)
   E. Associations (words expected near another word)
   F. General terms (like thing, creature, business, etc.)
   G. Substitutions: ones, do, so, etc.
   H. Omissions (with yes, if not, etc.)
   I. Terms for adding more information: furthermore, also, etc.

2. Use a pattern to organize and extend the focus:
   A. Parallel sentence structures (repeating a grammatical form for similar ideas)
   B. Larger groups of parts

3. Define the idea, telling the larger classifications that include it.

4. Name and consider the parts of the idea, or give specific examples.

5. Compare and contrast
   A. With more and less and adjectives and adverbs
   B. With words that indicate differences: however, not, unlike, etc.

6. Tell a story with the idea, arranging it in time order to show change and process
   A. With words that express time: then, next, etc.
   B. With tenses of verbs

7. Reason logically about the idea
   A. Analyzing how its causes lead to their effects (with words like therefore, etc.)
   B. Relating specific cases to general classes

8. Summarize, revise, and improve the idea.
TYING THINKING TO WRITING

Course Contents

Introduction
1. Focus on a subject
   Plan for description
   Choose subjects for verbs
   Punctuate ends of sentences
   Refer to the subject with pronouns
   Point to the subject again

2. Use a pattern
   Plan for classification
   Continue small patterns of grammar
   Organize with large patterns
   Finish the pattern

3. Add details and comments
   Collect and arrange facts
   Make lists
   Add separate sentences
   Lengthen sentences

4. Define and count
   Plan for definition
   Number and spell subjects
   Make verbs agree

5. Compare to show likeness
   Plan for comparison
   Observe what is similar
   Use comparative forms
   Complete and combine comparisons

6. Contrast differences
   Find differences
   Say "no" clearly
   Coordinate sentences of equal importance

7. Arrange for time
   Plan for narration (stories)
   Label the time
   Mark time with tense forms
   Give instructions in order

8. Reason logically from cause to effect
   Plan for reasoning to solve problems
   Show an analysis of cause and effect
   Use commas with reason

9. Combine general and specific
   Find levels
   Learn suffixes for precise vocabulary
   Move between levels
   Substitute strong verbs

10. Summarize main ideas
    Study with your own words
    Create titles
    Quote directly or indirectly or condense

11. Revise for the readers
    Plan for persuasion
    Disagree courteously
    Reread, rethink, and revise
    Write a closing
    Write an introduction

12. Remember to edit
    Use aids to memory
    Omit what is not needed
    Connect parts smoothly
    Improve bad examples

Appendix:

   Spell by patterns
   Learn general patterns
   Find a few patterns of personal problems
   Spell the right word
   Post apostrophes
   Space syllables
   Measure progress in writing
   Introduce yourself
   Check your skill at using clues
   Prepare a model to analyze
   Write about challenging topics
   Organize for essay examinations
   Plan a strategy
   Recognize needed organization
   Use various types
   Interpret questions
   Connect parts