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DESIGNING, DEVELOPING, AND TESTING PROGRAMED INSTRUCTION FOR BEGINNING NEWS WRITERS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

William Edward Francois, B.S., M.S.

** * * * * * * * *

The Ohio State University
1967

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Words do not always convey all that a student owes to a teacher. This is such an occasion as I acknowledge, with special thanks, the help and encouragement given by Edgar Dale of the Department of Education, The Ohio State University, during a period of several years. I am most grateful.

As for errors and poor judgment in this project, I alone am responsible.
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Chapter I

EVOLUTION OF THE PROBLEM

Our society is experiencing an "information explosion." Vast amounts of information are being produced each year as government and industry spend billions of dollars on basic and applied research. Private and state-supported universities and colleges are making substantial contributions to this production of knowledge.

The benefits from this "information explosion" are numerous. However, at least two dilemmas have resulted:

1. Highly-trained communicators are needed in growing numbers to gather, process and disseminate information. They not only are needed to process information for specialized groups, such as doctors, teachers, businessmen, and others, but they form the connecting link between producers of information and the public.

How well they perform is vital to society since communications are the means that "man has for organizing,
stabilizing and modifying his social life and passing
on its forms and meaning from generation to generation.¹

Presently, the demand for communication specialists
far exceeds the supply. Trade publications for the mass
media, such as Editor & Publisher, list a growing number
of job vacancies as well as unfilled new positions.

Not only is there a shortage, but the skill level
of some mass communicators may not have reached a pro­
fessional level of competence. As one critic wrote:

Lacking proper training, the personnel
engaged in gathering and disseminating in­
telligence is continually misconstruing or
overlooking facts . . . .²

Providing professionally-competent personnel is
a principal function of schools of journalism. Not
only must journalism educators be concerned with the
need to improve the competence of their students, but
they also must find ways to cope with the "information
explosion" which places greater demands upon teachers
and students alike.

¹Theodore Peterson, Jay W. Jensen, and William
L. Rivers, The Mass Media and Modern Society (New York:

²Harold D. Lasswell, "The Structure and Function
of Communication in Society," in Reader in Public Opinion,
and Communication, ed. by Bernard Berelson and Morris
p. 185.
2. The information explosion affects education in many ways. Its principal effect, however, is double-edged: there is more to teach and more to be learned in a limited period of formal education.

The dilemma is heightened in journalism education because of record enrollments in schools of journalism. Total enrollment reached 22,339 in the fall of 1966—an increase of 16 per cent over 1965 (Table 1). The addition of nonmajors who are enrolled in various journalism courses swells the college-level total to well over 30,000. In addition, more than 1,000,000 students work on an estimated 45,000 senior and junior high school publications.

Many of the college-level journalism students will soon be filling staff positions with the mass media (newspapers, radio, television, magazines, etc.), yet the time they have for gaining a professional level of competence while they are in college may be shrinking. Greater demands are being placed upon them to

---


Table 1
Journalism Enrollment, 1960-1966

<table>
<thead>
<tr>
<th>Fall of Year</th>
<th>Freshman Class Enrollment</th>
<th>Senior Class Enrollment</th>
<th>Total Enrollment</th>
</tr>
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<tbody>
<tr>
<td>1960</td>
<td>2,776</td>
<td>2,450</td>
<td>11,390</td>
</tr>
<tr>
<td>1961</td>
<td>3,021</td>
<td>2,560</td>
<td>12,368</td>
</tr>
<tr>
<td>1962</td>
<td>2,904</td>
<td>2,713</td>
<td>13,137</td>
</tr>
<tr>
<td>1963</td>
<td>3,410</td>
<td>3,099</td>
<td>14,624</td>
</tr>
<tr>
<td>1964</td>
<td>3,912</td>
<td>3,358</td>
<td>15,820</td>
</tr>
<tr>
<td>1965</td>
<td>4,564</td>
<td>3,939</td>
<td>19,229</td>
</tr>
<tr>
<td>1966</td>
<td>4,972</td>
<td>4,330</td>
<td>22,339</td>
</tr>
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know more about a great many subjects apart from the knowledge and skills required in mass communications. Their knowledge must extend to psychology, political science, sociology, history, literature, science, etc., which means that the time set aside in college for learning the skills required by the mass communicator probably has remained the same or diminished.

Today's journalism students not only are expected to be professionally competent at the time of graduation, but they also are expected to know about the theoretical aspects of mass communications, about matters of good taste and social responsibility, and about a great many other things associated with mass communications.
Journalism educators are concerned because they must teach essential skills and information which their students must have to fill professional positions while, at the same time, striving to assure high standards of performance. They must do this in the face of increasing enrollments.

The dilemma outlined above is not confined to journalism education. It confronts other professional schools, such as medicine, dentistry, law, etc. Indeed, the dilemma extends to all levels of education.

Efforts to meet this dilemma and to improve instruction are apparent in the work of national study groups, such as those in mathematics, physics, and English; the increased use of programed instruction, and the utilization of technology in education. But these efforts are being applied chiefly at the secondary and elementary school levels.

We could find no comparable effort being made in journalism education at the college level, although Tyler tells us: "We now know enough about the conditions
which contribute to learning to double the productivity of the college years.\textsuperscript{5}

What we found instead was a movement to extend the learning time. Journalism schools in growing number have instituted five-year master's degree programs and a few schools now offer Ph.D. programs in journalism or in mass communications.

We do not believe that lengthening the time of formal education is what Tyler had in mind when he said that the productivity of the college years could be doubled. In fact, we are forced to ask, even if we cannot answer, what the effect would be if productivity in journalism education could be doubled. Would five or more years of journalism education still be considered necessary?

We are not implying that there are less capable teachers in journalism education. Rather, we would agree with Tyler that some excellent work is being done by teachers who have an intuitive sense of what is

\textsuperscript{5}Ralph W. Tyler, "America Needs the Experimental College" (commencement address given at Antioch College, Yellow Springs, Ohio, June 22, 1943).
good teaching, what materials are significant, what topics are worth dealing with...

What is needed, however, is a systematic approach to increasing productivity in journalism education.

In discussing the initial step toward a systematic study, Tyler said:

...If an educational program is to be planned and if efforts for continued improvement are to be made, it is very necessary to have some conception of the goals that are being aimed at. These educational objectives become the criteria by which materials are selected, content is outlined, instructional procedures are developed and tests and examinations are prepared. All aspects of the educational program are really means to accomplish basic educational purposes. Hence, if we are to study an educational program systematically and intelligently we must first be sure as to the educational objectives aimed at.

Other educators agree with Tyler. For example, Mager wrote:

Once an instructor...decides he will teach his students something, several kinds of activity are necessary on his part if he is to succeed. He must first decide upon the goals he intends to reach at the end of his course or program. He must then select procedures, content, and

---


7 Ibid., p. 3.
methods which are relevant to the objectives, cause the student to interact with appropriate subject matter in accordance with principles of learning, and finally measure or evaluate the student's performance according to the objectives or goals originally selected.

Thus, a way has been suggested to begin a systematic study of a program or course with a view toward increasing the productivity of the college years. This, then, is what the Journalism Department at Marshall University, Huntington, W. Va., wished to do: increase the productivity of journalism students so that they learned as much in less time or learned more in the same amount of time. Whatever the time-gain, it could be used by students to learn new skills, to strengthen basic skills already learned, or to acquire broader information.

As with other journalism schools, there was a sense of urgency to get on with the task. The number of journalism students at Marshall had increased 70 per cent in one year when 150 majors enrolled at the beginning of the fall semester, 1966; yet the size of the faculty had remained the same. Previously it had been possible for instructors to devote consider-

---

able attention to the individual problems of learners, but as the ratio of students to instructors increased, tutorial relationships declined.

We also were concerned about the results of a study made at the end of a semester of instruction. Forty students had completed beginning news writing (Journalism 201). Six had failed. Of the thirty-four who had passed, fourteen were randomly selected and asked to write a news story based on facts presented in a fragmented, disorganized manner. The identity of the writers was concealed and the stories were judged by four journalists who had professional experience ranging from five to thirty-five years.

This panel was asked to judge the professional quality of the stories as excellent (assigned a numerical value of 15), good (10), average (6), poor (3), or hopeless (1). The ratings were pooled and thirteen of the stories were judged to be below average (the pooled average being 24). If a pooled rating of 21 is used as an arbitrary minimum standard of performance, then eight of the fourteen writers failed to meet this norm.

This performance by about half of the student news writers, plus the faculty's desire to find a way
to reduce the growing gap between students and teachers, led to the decision to undertake a longitudinal study which hopefully would provide a systematic method of evaluating and improving units of instruction in the journalism curriculum.

The Problem for Study

We could have selected any unit of instruction in the journalism curriculum as the starting point for our study. We chose a course of instruction which is basic to the curriculum—beginning news writing. We did so for the following reasons:

1. The ability to write news stories is basic to all other journalism instruction. Just as a student must master the alphabet before he can read, so too must a journalism student learn the fundamentals of news writing before he can succeed in advanced courses and as a professional mass communicator. There is growing concern that these fundamentals may not be receiving enough attention in the development of writing skills. As the executive director of the Wall Street Journal's Newspaper Fund, Inc., expressed it:

I come back again to the newsman of the future because I skipped one quality without which he is hollow brass and silent
cymbals. Tomorrow's newmen must be better writers. In my years as an editor and recruiter of journalistic talent, I have found no quality more valuable or essential, or elusive.

... Writing talent can be identified early—at 10 or 12; at times earlier. If nurtured, it grows steadily through the teen years. If ignored or frustrated, the development may be slow and the talent lost.

Newsmen everywhere, professionally and individually, should demand action on the writing program from organized education.9

2. The fundamentals of news writing have been identified even though there is disagreement on the method(s) for teaching them.

3. Once the fundamentals have been mastered, the student can advance to the more sophisticated writing skills with considerable assurance of success.

Exactly what they are, and how the sophisticated skills should be taught, is often debated because no rigorous studies have been made to identify these skills or to find more productive ways of teaching or learning them. Also, more rigorous studies are needed to find more productive ways of teaching or learning fundamental news writing skills.

We undertook such a study because we believe that

the results will be of value to journalism educators. To be of value, however, such a study must result in a method of approaching, analyzing, and improving any unit of journalism instruction.

Our ultimate objective, therefore, is a systematic method which can be applied to any unit of instruction.

We chose to begin with the beginning news writing course.

We believe that a systematic method should include:

1. A statement of concrete, testable objectives.
   a. Tyler, for example, has proposed a two-dimensional chart for stating objectives in terms of their behavioral aspect and content aspect.¹⁰
   b. Bloom has suggested a two-dimensional chart which, along one axis, calls for the statement of intermediate and terminal behaviors (objectives) and, along the other axis, a description of required behaviors in terms of information, skills, and values-attitudes.¹¹

2. An analysis, including tests, to determine if

¹⁰ Tyler, op. cit., Basic Principles of Curriculum and Instruction, p. 32.

the unit of instruction being examined permits learners
to achieve the stated objectives and to determine where
improvements could be made.

3. The development of a "prototype" program of
instruction designed to permit learners to achieve the
objectives:
   a. In less time.
   b. With more success.
   c. Or with more certainty that students are
reaching specified objectives.

4. Revision of the prototype program on the basis
of test results, observation, and reports by learners.

We believe that a systematic method will help to
provide answers to such questions as:

1. Where can the prototype program best be used:
in the classroom, at home, or in combination (classroom
and home study)?

2. What should be the role of the instructor in
the prototype program of instruction? Is his presence
mandatory throughout the instruction period, or is he
only needed at certain critical stages? Can he be elimi-
nated from the prototype and be used instead at the termi-
nation of programed instruction to extend the knowledge
and skills of learners who have successfully worked
through the program?
3. What other factors contribute to a student's achievements in news writing?

Statement of the Problem

In order to explore the complexities of news writing behavior, we first would need a systematic program of instruction. Therefore, our problem was:

1. To design and develop a prototype program of instruction, containing as much self-instruction as possible, for beginning news writers at the college level which would teach them fundamental news writing skills.

2. To test this program to determine if it teaches as well as, or better than, "conventional" classroom instruction.

Discussion of the Problem

We specified "self-instruction" in the first part of the problem statement because this can be the means of increasing the efficiency of instruction and/or learning. By this we mean that self-instruction can reduce the hours of formal classroom instruction which might be required if learners are to reach specified
objectives. The time that is gained could then be used for other teaching or learning activities.

Efficiency is a factor in productivity. If instructors can teach, or learners can learn, as much in a reduced period of time, then their productivity has been increased. Time, in the case of teachers, can be measured in hours of formal classroom instruction. Learners' time should not be defined so rigidly. It should include non-classroom activities and studies which are, for example, deemed necessary if the fundamentals of news writing are to be learned.

The second part of the problem statement is a necessary condition attached to the problem. A prototype program would be of little or no value if it did not teach as well as, or better than, the program of instruction it was designed to replace.

If it can be demonstrated that the prototype teaches as well as the program it is intended to replace, and does this in less time, then the prototype is more efficient and would warrant, we believe, further efforts to improve it.

In the first part of the problem statement, the words "fundamental news writing skills" were used. We will identify these skills in the concrete statements
of objectives (Chapter III). It is logical to expect that these skills, which are basic to news writing, will be exhibited in the news stories written by learners. There must, however, be a minimum acceptable standard by means of which judgments can be made as to how well the basic news writing skills have been learned. We will operationally define this standard in Chapter III. Without such a standard, the value of the prototype program could not be ascertained no matter how efficient it might be in reducing the hours of formal classroom instruction and/or learning.

We are calling this a prototype program because it is experimental and subject to change based on test results, observation, and learner reports.

While we are hopeful that the prototype will enable learners to achieve all stated objectives, it is quite possible that parts of the prototype program might not be successful in terms of learners achieving all objectives. Should this happen, we do not believe that failure of one unit of the program invalidates the demonstrated success of other parts of the program. Indeed, one of the characteristics of a prototype,
whether it be an airplane or a program of instruction, is the expectation that trial runs will demonstrate weaknesses and strength.

**Thesis**

Our thesis is that a systematic method(s) can be devised by means of which any unit of instruction in a curriculum can be studied and improved.

By systematic, we envision the use of some of the principles of programed instruction in the design and development of the prototype program.

Subject to experimental revision, we believe that these are the steps to be followed in a systematic method:

1. Statements of testable objectives for any given unit of instruction.

2. Tests designed to determine if students in the unit of instruction being examined are reaching the objectives.

3. If the objectives are not being reached, the design and development of a prototype program of instruction begins. During this stage, the principles
of programed instruction should be emphasized. Some of these principles are:

a. Active response by students.

b. Small steps in which control of stimuli produces gradual increments in mastery of the subject.

c. The learner quickly discovers if he has responded correctly or incorrectly.

d. The learner interacts with the program at his own pace.

4. Once the prototype has been developed, a small-scale trial run should be conducted so that learner difficulties can be detected.

5. The prototype program should be revised, if necessary.

6. The use of the prototype program is extended to a larger group of students.

7. The results of learner interaction with the program are evaluated again.

Good programs, carefully developed, can improve the quality and efficiency of instruction. As Schramm wrote:

A great deal of learning seems to

---

take place, regardless of the kind of program or the kind of students. Even a bad program is a pretty good teacher. Programs have been used successfully at all levels of the educational system, at all levels of ability from slow learners to the very best students, and to teach a great variety of academic subject matter and verbal and manual skills.13

While much has been written about the value of the "method" of programed instruction, each program must be evaluated on the basis of what it purports to teach. Poor instruction does not become better simply because it is called programed instruction.

Not only must each program be evaluated on its own merits, but theorists and practitioners alike frequently disagree concerning various aspects of programed instruction. Skinner, for example, has advocated small steps in learning along a linear pathway in the program based on the principle of stimulus-response-immediate reinforcement. Crowder, however, advocates "branching" programs of instruction. For him, a routine program step means that not more than 15 per cent of the learners make an incorrect response to the learning

material (stimulus); whereas a major branch of the program is needed when a large number of students incorrectly respond.\textsuperscript{14}

Pressey, who developed a testing device in 1926 which is considered to be the forerunner of present-day auto-instructional efforts, is one of those who is critical of small-step linear programing. He contends that "current animal derived procedures in auto-instruction destroy meaningful structure to present fragments serially in programs, and replace processes of cognitive clarification with largely rote reinforcing of bit learnings."\textsuperscript{15}

Pressey's approach, which he terms "adjunct auto-instruction," would first expose the learner to a substantial and organized unit of instruction, such as a textbook chapter, a field trip, or some other comparable learning experience.

"In the writer's opinion," he wrote, "only after such first contact with a complex structured topic

\textsuperscript{14}Margulies and Eigen, op. cit., p. 122.

should a student turn to auto-instruction for review and differentiation of major points in material just read.\textsuperscript{16}

We believe that one of the major problems involved in the use of programed instructional materials will concern instructors and students alike. This is the boredom factor. The danger of boredom is not confined to programed instruction. It confronts all educational efforts. Skinner was wary of the boredom factor when he wrote:

\begin{quote}
\ldots \text{The machine, like the private tutor, reinforces the student for every correct response, using \ldots immediate feedback not only to shape his behavior most efficiently but to maintain it in strength in a manner which the layman would describe as 'holding the student's interest.'}\textsuperscript{17}
\end{quote}

Frankly, we have doubts that the small step-by-step type of learning material would appeal to college students. Perhaps boredom would not be a factor if the program of instruction was of relatively short duration, since the Hawthorne effect might be operating

\begin{quote}
\textsuperscript{16}\textit{Ibid.}, p. 146.
\end{quote}

\begin{quote}
\end{quote}
initially. However, if the program is extensive, covering an instructional period of several months, we believe that small-step learning might be self-defeating because of the boredom factor.

We had to make a decision whether to present material as Skinner suggests, or to present more complex material for review and differentiation, as Pressey suggests. In the design and development of the prototype program, we favored Pressey's suggestion of having students respond to larger, more complex, material except when critical information and critical differentiations were involved. In such instances, we decided to rely heavily on the Skinnerian approach of small steps in learning, followed by a learner's response and almost immediate feedback in terms of whether the learner had responded correctly or incorrectly.

We also believed that the prototype program should have the capability of branching learners to material which would be of a remedial nature. Our supposition was that some learners would display some kinds of writing weaknesses not common to all learners. Rather than attempt to program for all writing errors, adjunct programs could be devised and used with learners who showed a need for a particular kind of remedial help.
In this way we would be utilizing one of the procedures suggested by Crowder.

We wish to emphasize that the design, development and testing of the prototype is the starting point for further studies. Once the prototype has been evaluated, it can be modified and used as a means of testing some of the principles of programmed instruction.

Also, the prototype is but one part—although a principal part—in systematizing our approach to the study of the journalism curriculum. It is this method of approach (described in Chapters II, III and IV) which remains our basic goal.
Chapter II

PRE-PROGRAM STUDIES

Before attempting to design, develop and test a program of instruction, we first had to know about the kinds of writing problems experienced by students in the beginning news writing course. We also had to know how well they performed when dealing with certain kinds of writing tasks. Finally, we needed to devise ways of measuring the entering and terminal news writing behaviors of students enrolled in this basic news writing course.

This chapter will discuss the pre-program methodological approach and our findings during this beginning phase of the longitudinal study that is still continuing. We were seeking variables that could be measured and correlated so that we might better understand writing behavior.

Our initial studies were based on the inductive approach because we hoped to derive patterns of accumulated facts which would assist us in determining behavioral norms, in identifying potential predictors.
of news writing success, and in preparing and testing the prototype program of instruction.

This chapter will discuss the instrumentation, test results, and reasons underlying instrumentation during our preliminary studies which then led to a full-scale testing of the prototype.

**Categories of Errors**

We began our pre-program studies by maintaining a "categories of errors" chart on nineteen students enrolled in one section of the beginning news writing course. This chart was intended to help us isolate some writing problems. It included the following categories: antecedent error, fact error, carelessness in editing, wordiness, misspellings, improper punctuation, use of wrong word, improper use of quotation marks, errors in use of possessives, failure to paragraph, improper capitalization, failure to punctuate, mislocated words or phrases, and subject-verb disagreement.

By the end of the fall semester, 1966, we had isolated the kinds of errors committed by these nineteen students.
Three kinds of errors were indicated by the writing of the majority of the students:

1. Twelve of the nineteen students showed that they could not edit their own copy very well, ranging from a high of eighteen editing failures in fifty-seven inches of news copy to a low of six editing failures in forty-eight inches of news copy (with an inch of news copy based on four typewritten lines).

2. Twelve students showed difficulty in eliminating wordiness from their copy—ranging from a high of twenty-four examples in sixty-three inches of news copy to a low of nine examples in forty-eight inches of copy.

3. Improper punctuation, especially in using and correctly placing the comma, was a problem common to thirteen students, although only four students showed a real mastery of punctuation.

There were some writing problems not common to the majority of students:

1. Seven of the nineteen students had difficulty placing the time element (the when of a news story) in the lead.

2. Seven students were poor spellers.

3. Five students had difficulty correctly using
possessives, such as, this year's team, the team's victory, etc.

4. Five students had difficulty making antecedents agree with pronouns, or vice versa. For example, the plural pronoun "they" would be used to refer to the antecedent subject "column of tanks."

5. Three students had difficulty making verbs agree with subjects.

The categories of errors listed above can be viewed as discrete errors, or distinct errors. They constitute what we shall call the mechanics of news writing. Each mechanical aspect of news writing can be isolated for instructional purposes. Rules of punctuation, grammar, copyediting, etc., can be applied to these discrete errors.

Discrete elements of news writing are parts of global news writing behavior. They are constituent parts of a news story. The story itself is the product of global news writing behavior. Global news writing behavior is more complex than behavior operating at the mechanical level of news writing.

We can illustrate what we mean in terms of teaching and learning:

1. A journalism instructor has little diffi-
ulty pinpointing mechanical errors in writing. He can "red pencil" such errors and cite substantial reasons (rules of grammar, punctuation, stylebook, etc.). But he also is judging the global product—the entire news story. He cannot send the student to a rule to correct faulty organization or poor news judgment. In fact, the instructor most likely will judge the quality of the global product on the basis of his experience; that is, he will apply subjective criteria as distinct from objective criteria that could be applied to the mechanical aspects of writing.

2. On the other hand, a learner may know the rules of punctuation, grammar, etc., but lack the ability to produce a news story which meets the subjective criteria being applied by the journalism instructor. Conversely, the learner may demonstrate an ability to organize a news story in a way acceptable to the instructor, but exhibit such gross errors at the mechanical level as to make the global product unacceptable.

Our operational definitions of these terms are:

1. Mechanical news writing behavior is that kind of behavior which can be judged as correct or incorrect
on the basis of rules or by consulting standard references (stylebook, dictionary, encyclopedia, etc.).

2. Global news writing behavior is that kind of behavior which cannot be judged as correct or incorrect on the basis of rules or by consulting standard references. Subjective criteria are the means of making judgments about the quality of such behavior.

We have made the above distinctions because we shall repeatedly use the terms "mechanical news writing behavior" and "global news writing behavior."

It was our belief that a program of instruction could be designed to attack the more common types of mechanical writing errors, e.g., carelessness, punctuation, wordiness, and placement of the time element in the lead of the news story.

The inclusion of wordiness as an element in mechanical news writing can be criticized on the basis that there is no established rule or standard reference by which to judge wordiness. We believe, however, that trained copyeditors could substantially agree on what would constitute wordiness in a news story.

As for the other categories of writing errors (misspellings, incorrect possessives, pronoun-antecedent disagreement, and subject-verb disagreement),
we were not sure how much programed instruction should be directed at these kinds of errors. Some students needed such instruction; others did not. We finally decided to set up branching programs to provide some remedial instruction in the correct use of possessives and pronoun-antecedent agreement for those students who did poorly while working through program material devoted to a review of these types of errors.

Our next task was to construct a test which would indicate how well students could discriminate among mechanical writing errors. The three-part test that evolved (Appendix A) was based on common errors made by the nineteen students in the one section of beginning news writing. We computed the reliability of this test by the split-half technique (see Chapter IV).

We administered this test to eight student copyeditors who constituted the class in Journalism 302. These students were upperclassmen who had successfully completed two semesters of instruction in copyediting, headline writing, and newspaper makeup. Final grades already had been determined for the copyeditors before they took the editing test. The results are shown in Table 2.
Table 2
Post-Editing Scores, Final Grades and ACT English Scores of 8 Student Copyeditors

<table>
<thead>
<tr>
<th>Student</th>
<th>Post-Editing Scores a</th>
<th>Final Grades</th>
<th>ACT English Scores b</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>159</td>
<td>A</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>156</td>
<td>B</td>
<td>23</td>
</tr>
<tr>
<td>3</td>
<td>146</td>
<td>B</td>
<td>28</td>
</tr>
<tr>
<td>4</td>
<td>141</td>
<td>C</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>139</td>
<td>B</td>
<td>25</td>
</tr>
<tr>
<td>6</td>
<td>135</td>
<td>B-</td>
<td>24</td>
</tr>
<tr>
<td>7</td>
<td>128</td>
<td>C</td>
<td>20</td>
</tr>
<tr>
<td>8</td>
<td>112</td>
<td>C</td>
<td>17</td>
</tr>
</tbody>
</table>

Spearman rank-order correlation coefficients were computed to determine what association existed between the three variables in Table 2. The coefficients are shown in Figure 1. Since we initially anticipated a positive relationship between the three variables, one-tailed tests of significance were made at the .05 level of confidence.

The null hypotheses were stated in this way: no significant relationship exists between final grades and ACT English standard scores, between post-editing
scores and final grades, or between post-editing scores and ACT English standard scores.

Alternate hypotheses were stated in this way: significant relationships exist between the above variables.

Using a table of critical values of $r_s$, coefficients of 0.643 are significant at the .05 level ($N=8$), while coefficients of 0.833 are significant at the .01 level.¹

Figure 1

Spearman Rank-Order Correlation Coefficients Between 3 Variables (8 Student Copyeditors)

<table>
<thead>
<tr>
<th></th>
<th>Editing Scores</th>
<th>Grades</th>
<th>ACT English Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editing Scores</td>
<td>___</td>
<td>0.804</td>
<td>0.611</td>
</tr>
<tr>
<td>Grades</td>
<td>0.804</td>
<td>___</td>
<td>0.839</td>
</tr>
<tr>
<td>ACT English Scores</td>
<td>0.611</td>
<td>0.839</td>
<td>___</td>
</tr>
</tbody>
</table>

Based on the coefficients in Figure 1, our decisions were:

1. To accept the null hypothesis of no significant relationship between editing and ACT English scores.

2. To accept the alternate hypotheses that significant relationships existed between editing test scores and grades, and between grades and ACT English scores.

We will discuss these and other test results at the conclusion of this chapter.

Global Writing Behavior

Mechanical and global writing can, we believe, be classified much as Bloom classified educational objectives. These educational objectives represent intended behavior—the ways in which individuals are to act, think, or feel as the result of participating in some unit of instruction.

The major classes in Bloom's taxonomy of educational objectives are arranged in hierarchical order, beginning with less complex behaviors and pro-

---

2Bloom, op. cit., p. 12.
ceeding to more complex behaviors. These classes are: knowledge, intellectual abilities and skills, application, analysis, synthesis, and evaluation. Difficulties in making complete and sharp distinctions among the behaviors represented by the classification system are apparent. Also, more complex behaviors include less complex behaviors.

The advantages of the taxonomy, if it proves a useful tool for educational research, are many: as an aid in formulating hypotheses about learning processes; as a basis for suggesting methods of developing instructional materials, and as a basis for suggesting what order is most desirable when instructional materials are being presented.

We believe that mechanical news writing behavior can be classified at the lower levels of the taxonomy, while global writing behavior will be operating more at the level of synthesis.

Synthesis means the "putting together of elements and parts so as to form a whole."

A beginning news writer is operating at the level of synthesis when he is writing a news story, just as a

\[3\] Ibid., p. 15.

\[4\] Ibid., p. 206.
professional news writer is operating at the level of synthesis when he is writing a news story. There are, however, obvious differences in the global writing behavior of the student and the professional.

A conceptualization of these differences may prove useful during our longitudinal studies even if this conceptualization has limited value at the moment. This is our conception of the differences between the writing behavior of the student and that of the professional:

1. At some point in the learning processes a news writer becomes a professional (in fact as well as in name). This does not preclude further improvements in his writing ability.

We shall designate this changeover point as the level of mastery. We do not know at this time when a news writer has attained the level of mastery, but we believe that competent judges could estimate if global writing behavior has reached such a level.

2. We conceptualize a difference between those who have reached the level of mastery and those who have not in this way:

a. Professional news writers are no longer
consciously applying the mechanics of news writing in their global writing behavior. The mechanics have become an habitual, or ingrained, part of their global writing behavior.

b. Professional news writers can evaluate their own writing and, if necessary, correct it and/or improve it.

c. Learners, as distinct from professionals, are still confronted with the task of consciously applying the mechanics of news writing to their global writing behavior.

d. Learners are unable to evaluate their writing. They are unable to correct it and/or improve it without the help of evaluators.

We can represent the above concept in this way:

```
  SELF-EVALUATION
     ↓
  PROFESSIONAL: APPLICATION
     ↑
   KNOWING (SETTLED)
```

---

```
  APPLICATION
↑    ↓    →
LEARNER: EXTERNAL
   LEARNING (ON-GOING)
```

---
The representation shows lines of action and interaction. There is, in the case of the learner, an awareness of having to apply what is being learned; yet external evaluation is necessary. The professional, however, does not consciously apply what he knows to news writing tasks. Also, he has the ability to evaluate the products of his global writing behavior.

We will discuss this concept again (Chapter VI). Our immediate problem, however, was to find a way of evaluating a learner's global news writing behavior.

As Bloom points out:

Exercises involving synthesis often yield rather complex products for which objective criteria of evaluation are lacking. A new poem, a new musical piece, or a new design may defy evaluation. Who is to pass judgment on the quality of the product and by what standards? In the absence of an objective standard such as an external framework, theory, or the like, the examiner may have to rely heavily upon the opinions of competent judges. Check lists and rating scales should be especially useful here, but the examiner ought to insure that they do not emphasize elements of the product to the neglect of global qualities which, after all, may be more fundamental in any synthesis.5

We are unaware of any objective standards for judging global news writing behavior; therefore, we

5Ibid., p. 174.
made a decision to call upon professional news writers to serve on a panel which would judge global news writing behavior of students in Journalism 201. The four judges had professional news writing and editing experience of five, ten, fourteen and thirty-eight years. Each judge had worked on metropolitan-sized daily newspapers. One is the managing editor of an afternoon daily newspaper; another is news editor of an afternoon newspaper; the third had been an assistant news editor and an assistant city editor on a morning newspaper of 90,000 daily circulation, and the fourth had been a copyeditor and reporter on a newspaper of 100,000 circulation.

The same instruction sheet was given to the judges who then read a news story written by each of the fourteen randomly-selected students who had just completed Journalism 201 and whose grades already had been determined. Each student had been given the same scrambled facts presented on a mimeographed sheet (Appendix G). The news stories then were coded so judges would not be influenced should they have known the student by name.

Judges were asked to rate the professional quality of each news story in one of five ways. A
rating of excellent was given a value of 15; good, 10; average, 6; poor, 3, and hopeless, 1. Definitions of these ratings were included in the instructions. For example, an excellent rating would be given if, in the judge's opinion, the news story represented the highest professional quality, while a hopeless rating would be given if the news story showed no signs of professional quality.

A judge was not permitted to see the ratings assigned by the other judges.

Judges' ratings were pooled for each student's news story. The ratings are shown in Table 3.

ACT Scores

The ACT battery of four tests (English, mathematics, social studies, and natural sciences) is designed to measure a student's ability to perform the kinds of intellectual tasks college students typically perform.

The English test is an 80-item, 50-minute test that samples the student's ability to understand and use the English language . . . . The test is con-
structured to parallel the tasks a student faces in actual writing situations.\textsuperscript{6}

Reliability and validity of ACT tests, including the English test, are discussed in various ACT research reports and in Chapter IV.

The English test score is a standard score based on a raw score. A raw score of 70-71, for example, converts to a standard score of 28, while a raw score of 46-48 becomes a standard score of 18. A standard score of 20 is the approximate median score of college-bound high school seniors taking the ACT battery of tests.

In our search for norms and predictors of news writing success, and since the ACT English test purports to parallel writing tasks, we obtained these scores on the fourteen students randomly chosen from the two sections of Journalism 201 (see Table 3).


\textsuperscript{7}Technical Report (Iowa City, Iowa: American College Testing, 1965); and Comparative Predictive Validities of the American College Tests and Two Other Scholastic Aptitude Tests, Research Report No. 6 (Iowa City, Iowa: American College Testing, August, 1965).
Table 3

Scores on Four Variables (Editing Test, Judges' Ratings, ACT English Test, Final Grades)
For 14 Students Who Had Completed Journalism 201

<table>
<thead>
<tr>
<th>Student</th>
<th>Post-Editing Scores^</th>
<th>Final Grade</th>
<th>ACT English Scores^b</th>
<th>Post-Judges' Ratings^c</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>140</td>
<td>A</td>
<td>25</td>
<td>18</td>
</tr>
<tr>
<td>2</td>
<td>136</td>
<td>B</td>
<td>27</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>128</td>
<td>A</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>4</td>
<td>126</td>
<td>B-</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>5</td>
<td>124</td>
<td>A-</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>6</td>
<td>124</td>
<td>C</td>
<td>23</td>
<td>25</td>
</tr>
<tr>
<td>7</td>
<td>117</td>
<td>A</td>
<td>28</td>
<td>21</td>
</tr>
<tr>
<td>8</td>
<td>116</td>
<td>A</td>
<td>28</td>
<td>18</td>
</tr>
<tr>
<td>9</td>
<td>114</td>
<td>A-</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>10</td>
<td>100</td>
<td>B-</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>11</td>
<td>89</td>
<td>B</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>12</td>
<td>87</td>
<td>C</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>13</td>
<td>80</td>
<td>A-</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>14</td>
<td>56</td>
<td>C</td>
<td>21</td>
<td>15</td>
</tr>
</tbody>
</table>

^aMaximum possible score is 200.

^bMaximum possible standard score is 36.

^cMaximum possible pooled rating is 60.

Spearman rank-order correlation coefficients were computed to determine what association existed between the four variables in Table 3. The coefficients are shown in Figure 2.

Since we had initially expected these variables
to be positively associated, one-tailed tests of significance were made at the .05 level of confidence.

Null hypotheses: No variable is significantly associated with any other variable in Table 3.

Alternate hypotheses: Variables in Table 3 are significantly associated.

Figure 2
Spearman Rank-Order Correlation Coefficients Between 4 Variables (14 News Writers)

<table>
<thead>
<tr>
<th></th>
<th>ACT English Scores</th>
<th>Judges' Ratings</th>
<th>Post-Editing Scores</th>
<th>Final Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT English Scores</td>
<td>-</td>
<td>.055</td>
<td>.456&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.707&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Judges' Ratings</td>
<td>.055</td>
<td>-</td>
<td>.092</td>
<td>-.04</td>
</tr>
<tr>
<td>Post-Editing Scores</td>
<td>.456&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.092</td>
<td>-</td>
<td>.422</td>
</tr>
<tr>
<td>Final Grades</td>
<td>.707&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.04</td>
<td>.422</td>
<td>-</td>
</tr>
</tbody>
</table>

<sup>a</sup>Correlation coefficients are significant beyond the .05 level. Accept alternate hypotheses.
Strong, positive relationships, which were evident between editing scores, grades and ACT English test scores in Figure 1, also are evident in Figure 2. What surprised us, however, was the .04 negative association between judges' ratings and final grades. We will discuss this at the end of the chapter.

**Formal Logic Ability**

Barbe had found a significant relationship (5 percent level of confidence) between formal logic ability and ability to structure writing. He operationalized formal logic ability as the score obtained on a five-minute syllogism test (Appendix H) which contained fifty valid or invalid conclusions. Selected individuals had to indicate which conclusions were valid or invalid.

After Barbe had administered the test, ten individuals were selected on the basis of the whole range of logic scores, with one subject being selected from each decile. Each subject then was asked to write a paragraph which was submitted to a panel of judges. It

was in this way that Barbe obtained a **structure** score.

The measure of the degree of structure of the paragraphs was the extent to which judges agreed among themselves on what the order of the sentences should be. The extent of agreement constituted the structure score.

We will have more to say about structure in the next section of this chapter. Our immediate interest, however, was the relationship, if any, between formal logic ability and news writing ability. We decided to use Barbe's formal logic test in this way:

1. Since professional news writers can "structure" their news stories better than beginning news writers, perhaps their scores on the logic test would be signifi­cantly higher than those of the students.

2. Should this be the case, we would want to consider changing the curriculum to include formal logic instruction for journalism students.

We administered the test to nineteen newsmen and women at the **Charleston Gazette**, one of the largest daily newspapers in West Virginia, and to the nineteen students enrolled in one section of Journalism 201. We used a median test of central tendency (.05 level of
significance) to determine if there was a significant difference between the two groups insofar as this one measure could show it (see Figure 3).

Figure 3

Median Test on Logic Scores

<table>
<thead>
<tr>
<th></th>
<th>Professional Journalists</th>
<th>201 Journalism Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above Median On Logic Scores</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Below Median On Logic Scores</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

The null hypothesis is that there is no significant difference between the two groups. The alternate hypothesis is that there is a significant difference between the two groups.

Using the median test, we found that chi square, with one degree of freedom, was equal to 0.16, with probability equal to .70. Since this is larger than the .05 level of significance, we cannot reject the null hypothesis of no significant difference between the two groups in formal logic ability.
Since the results of this one test did not show any significant difference between the two groups in formal logic ability, we turned to the possibility that a student's logic score might be related to his ability to discriminate between well- and poorly-structured written materials.

Barbe's method of having students write a paragraph on an assigned subject, and then having a panel of judges restructure the sentences of those paragraphs to determine the degree of structure did not seem a promising tool to us because of the relatively large number of students who would be enrolling in Journalism 201 each semester. We therefore sought a different way to measure this elusive variable in writing.

**Structure**

Up to this point we have been using the words "structure" and "organization" without defining them. We believe that the ability of students to "structure" their writing is of major importance in global news writing behavior, but we are not sure that "structure" can be isolated, defined, or measured.

The late Irvin Lorge asked:

Is structure or organization, then, so integral a part of a written passage
that it cannot be evaluated or measured? Is it always subsumed in a halo of 'general goodness' or general evaluative set? Perhaps structure or organization of a text is taken so much for granted that only exceptional deviations in organization are recognized. . . . Of course handbooks on writing refer to the necessity for 'good' structure in English prose. Textbook discussions about good structure imply that 'structure,' 'coherence' and good 'organization' are practically synonymous. Words such as 'unity,' 'order,' 'lucidity,' and 'sequence,' if not used synonymously, suggest at least a close association with the concept of 'good' structure.9

Lorge noted that none of the above terms had as yet been adequately defined. He summed up the problem in this way:

The basic problem, then, was to discover some operational demonstration of unity of prose. If unity means that sentences follow each other in orderly fashion, then if any passage were to be fragmented into portions and put into random order, educated subjects should be able to reconstitute the portions into useful order. If this random procedure were adopted, then two kinds of questions may be asked: (1) are people agreed as to the structuring of prose passages and (2) if such agreement is found, is the reordering an aspect of unity, coherence, and structure?10

Lorge gave disarranged text passages (sentences


10 Ibid., p. 6.
of paragraphs) to subjects and asked them to arrange the passages into what the subjects thought would be a "useful" order. He also gave subjects larger portions of prose passages and asked them to arrange the fragmented parts into a useful order. Having obtained the results, he concluded:

On the bases of these several explorations, it seems that structure can be evaluated independently of 'general goodness' or 'evaluative' estimations. The arrangement test which is so useful for establishing the structure in a set of pictures or cartoons seems to have utility in getting at the structure in prose. The departures... from an order accepted by consensus may serve as the basis of a new approach for judging structure—although I doubt that it is an approach that will be relished by either teachers of composition or by expert readers.

In general, subjects found it easier to put portions into proper order than to rearrange sentences into proper sequence. This undoubtedly reflects the redundancy of more information given with the portion. Conversely, it is more difficult to put sentences into structural sequence because of the lack of enough redundancy.11

Lorge's tentative conclusions suggested several possibilities to us:

1. Educated subjects should be able to re-

11Ibid., p. 7.
structure portions of disarranged paragraphs into an order suggested by consensus.

2. Departure from an order suggested by consensus may serve as the basis for a new approach for measuring restructuring ability—the ability of students to make discriminations between well- and poorly-organized writing. This ability might be reflected in the global news writing behavior of students.

3. Redundancy makes it easier for students to restructure prose passages.

a. Redundancy can be defined as excessive words—words not necessary to the meaning of a communication.

b. Redundancy can be illustrated by the formula advocated by the late Paul White, CBS news director, in regard to radio news writing: "... tell 'em what you're going to tell 'em, tell 'em, then tell 'em what you've told 'em."\textsuperscript{12}

c. Redundancy suggests an idea for the design of instructional materials related to global

news writing instruction. Students might better see, or understand, structural elements of model news stories being used for instructional purposes if, at first, these models contained redundancies related to organizing, or structuring. At the student progressed, these redundancies could be faded out.

Our immediate interest, however, concerned Lorge's idea for getting at the structure of written passages. He had suggested that educated subjects might be given a paragraph, with the sentences in random disarray, and asked to rearrange them into an order that could be determined by consensus as the most "useful" one.

It seemed plausible that students who could make finer discriminations in the structure of written passages might also learn more quickly how to structure their own news stories; that is, the better a student's discriminatory power, the better might his chances be to exercise good judgment while "structuring" his news stories.

As Bloom wrote:

Occasionally examiners have resorted to indirect methods of testing synthesis objectives. For example, some published tests attempt to measure the effectiveness of expression, particularly the ability to
organize ideas, through multiple-choice items. Thus the test may ask the student to rearrange a group of sentences to form a coherent paragraph, or a group of paragraphs to form a coherent essay. If such indirect methods can be shown to yield valid indexes of the behaviors in question, then some of the practical problems of administration can be overcome and economies can be realized.13

We proceeded to devise a test to measure the ability of a student to make discriminations in structure. We followed this procedure:

1. We selected four paragraphs from different books which seemed to us to be well structured.
2. The sentences of each paragraph were randomly disarranged.
3. We asked the nineteen professional newsmen and women at the Charleston Gazette to arrange the sentences into what they thought was the best organization for each paragraph. We obtained consensus on two of the paragraphs (Appendix I). On one of the paragraphs, for example, fourteen of the newsmen and women completely agreed on the way the paragraph should be structured. On the other paragraph (consisting of nine sentences), eleven of the nineteen were in complete agreement.
4. We next took ten paragraphs written by

13Bloom, op. cit., p. 175.
students and professionals, made some changes in several of these (Appendix I), and asked the professional newsmen to place the paragraphs in a one-to-ten ordering with the first selection representing the paragraph with the best structure, while the tenth selection represented the paragraph with the poorest structure or organization. After repeated trials we obtained consensus in that the three most highly structured paragraphs were being placed in the first five positions, while the three most poorly structured paragraphs were being placed in the last five positions.

5. We then asked the nineteen students in one section of Journalism 201 to place the ten paragraphs in the order representing their judgment of best-to-poorest organization. We computed scores in this way:

Student Restructuring: 1 3 5 8 4 2 7 10 9 6
Correct Restructuring: 1 2 3 4 5 6 7 8 9 10

\[
\begin{array}{cccccccc}
-1 & -2 & -4 & -1 & -4 & -2 & -4 & -18 \\
\end{array}
\]

The difference between each choice made by the student and the "correct" order is summed. The score in the above example is -18. A positive score is obtained by subtracting the student's negative score from the maximum possible negative score obtainable which, in the case of the ten paragraphs above, is -50. Therefore, the
student's score on this portion of the restructuring test would be 32.

6. We followed this same procedure with both of the test paragraphs. A student worked with one paragraph at a time, rearranging the sentences into what he thought constituted the best order. Examples of scoring are:

a. For the five-sentence paragraph:

Student restructuring: 1 2 3 5 4

"Correct" restructuring: 1 2 3 4 5

\[\text{Total score: } -1 -1 = -2\]

b. For the nine-sentence paragraph:

Student restructuring: 1 2 3 4 8 7 6 5 9

"Correct" restructuring: 1 2 3 4 5 6 7 8 9

\[\text{Total score: } -3 -1 -1 -3 = -8\]

In the three examples above, the student's total negative score would be -28. Maximum possible negative score is -102. Therefore, the student's score would be 102 minus 18, or 84.

The scores of the nineteen students on this restructuring test, along with their scores on the formal logic test and ACT English test, plus their final grades, are shown in Table 4. It should be pointed out that the restructuring and logic tests were given during mid-semester, so they are neither pre- or posttests.
Later, when we moved into the first full-scale study, we administered the tests at the beginning of the semester and, in the case of the writing, editing and restructuring tests, at the end of the semester.

Table 4

ACT English Test Scores, Restructuring Scores, Logic Scores, Final Grades of 19 Students

<table>
<thead>
<tr>
<th>Student</th>
<th>ACT English Scores</th>
<th>Restructuring Scores</th>
<th>Logic Scores</th>
<th>Final Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23</td>
<td>68</td>
<td>72</td>
<td>A-</td>
</tr>
<tr>
<td>2</td>
<td>22</td>
<td>64</td>
<td>66</td>
<td>A-</td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>37</td>
<td>50</td>
<td>B-</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td>80</td>
<td>46</td>
<td>A</td>
</tr>
<tr>
<td>5</td>
<td>19</td>
<td>58</td>
<td>62</td>
<td>F</td>
</tr>
<tr>
<td>6</td>
<td>21</td>
<td>68</td>
<td>62</td>
<td>A-</td>
</tr>
<tr>
<td>7</td>
<td>22</td>
<td>56</td>
<td>64</td>
<td>B</td>
</tr>
<tr>
<td>8</td>
<td>18</td>
<td>78</td>
<td>54</td>
<td>B-</td>
</tr>
<tr>
<td>9</td>
<td>19</td>
<td>82</td>
<td>56</td>
<td>B-</td>
</tr>
<tr>
<td>10</td>
<td>22</td>
<td>82</td>
<td>60</td>
<td>B</td>
</tr>
<tr>
<td>11</td>
<td>23</td>
<td>62</td>
<td>80</td>
<td>B</td>
</tr>
<tr>
<td>12</td>
<td>19</td>
<td>40</td>
<td>66</td>
<td>C</td>
</tr>
<tr>
<td>13</td>
<td>19</td>
<td>62</td>
<td>56</td>
<td>F</td>
</tr>
<tr>
<td>14</td>
<td>28</td>
<td>58</td>
<td>76</td>
<td>A</td>
</tr>
<tr>
<td>15</td>
<td>13</td>
<td>28</td>
<td>62</td>
<td>C-</td>
</tr>
<tr>
<td>16</td>
<td>18</td>
<td>52</td>
<td>48</td>
<td>D</td>
</tr>
<tr>
<td>17</td>
<td>19</td>
<td>56</td>
<td>58</td>
<td>A-</td>
</tr>
<tr>
<td>18</td>
<td>13</td>
<td>58</td>
<td>58</td>
<td>A-</td>
</tr>
<tr>
<td>19</td>
<td>19</td>
<td>58</td>
<td>60</td>
<td>C-</td>
</tr>
</tbody>
</table>

As with previous data, we thought that there would be positive associations between each of the variables in Table 4. Therefore, we again made
one-tailed tests at the .05 level of significance with hypotheses stated in this way:

Null hypotheses: No variable is significantly associated with any other variable in Table 4.

Alternate hypotheses: Variables are significantly associated with one another in Table 4.

Spearman rank-order correlation coefficients were computed using the formula for tied ranks. The values are shown in Figure 4.

Based on the coefficients shown in Figure 4, we made these decisions: significant relationships exist between the variables ACT English and restructuring scores, ACT English and final grades, and ACT English and logic scores.
Figure 4
Spearman Rank-Order Correlation Coefficients
Between 4 Variables for 19 Students

<table>
<thead>
<tr>
<th></th>
<th>ACT English Scores</th>
<th>Restructuring Scores</th>
<th>Final Grades</th>
<th>Logic Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT English Scores</td>
<td>—</td>
<td>.510&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.621&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.518&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Restructuring Scores</td>
<td>.510&lt;sup&gt;a&lt;/sup&gt;</td>
<td>—</td>
<td>.354</td>
<td>-.079</td>
</tr>
<tr>
<td>Final Grades</td>
<td>.621&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.354</td>
<td>—</td>
<td>.24</td>
</tr>
<tr>
<td>Logic Scores</td>
<td>.518&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.079</td>
<td>.24</td>
<td>—</td>
</tr>
</tbody>
</table>

<sup>a</sup>Coefficients are significant beyond the .05 level of confidence.

**Discussion of Relationships**

This discussion will seek to relate major topics presented in this chapter. Some questions will go unanswered because this was a preliminary study without the benefit of existing patterns of data. We were not surprised that more questions have been generated than have been answered.
Statistical Data

One of the correlation coefficients in Figure 2 puzzles us—the slight negative (−.04) association between judges' ratings of global writing behavior and final grades. These possibilities suggest themselves:

1. Judges' ratings are not reliable indicators of global writing behavior.

2. Final grades are not reliable indicators of global news writing ability.

Recent criticisms suggest that college grades best predict graduate school grades rather than success in adult life.

Both criteria and measuring devices for assessing adult achievements must be more adequately defined. Despite these limitations, however, we can safely conclude that college grades have no more than a very modest correlation with adult success no matter how defined.14

A different study reported:

Because college grades best predict graduate grades, current grading practices imply that a college education is mainly preparation for more education in graduate school.15


Such reports cast doubt on the value of final grades as a predictor of a student's global writing ability or of adult success in news writing. Perhaps instructors are being influenced by factors not directly related to global writing behavior.

For example, Student No. 6 in Table 3 was given the highest rating by judges, and his ACT and editing test scores were above average; yet his final grade was a C.

We interviewed this student shortly after he had completed the course. He was in the process of changing his major to business administration. During the interview he volunteered this self-appraisal:

"I just can't get interested in journalism or anything else. This was my problem in high school and it's been my problem since I've been attending Marshall. I know it, but I don't seem to be able to do anything about it."

A student's lack of interest, apart from his writing ability, could influence the final grade he receives.

As for the reliability of the judges' ratings, this was included in the statistical design (Chapter IV) and ascertained in the chapter which gives the results of the experiment (Chapter V).
We also note the strong relationship between final grades and ACT English test scores (Figures 1, 2 and 4). Such a relationship may indicate that the "academic potential" is there (as indicated by ACT test scores), and that this potential is being reflected in final grades even if it is not yet being reflected in the global writing behavior of the student.

It may be that the English ACT test score will still serve as a pre-instruction predictor of global news writing success. We will want to watch for this possibility during the full-scale experiment, the results of which are reported in Chapter V and VI.

ACT English test scores also appear to be strongly associated with restructuring and logic scores. Since the restructuring test was administered during mid-semester, rather than at the beginning of instruction, interpretation is difficult. Although no clear pattern emerges, we note that several students in Table 4 (Nos. 3, 12 and 15) had low restructuring scores. The grades for two of these students indicate some kinds of problems. As for the two failing grades (students No. 5 and 13), these resulted because the students did not meet their weekly quota of two news stories throughout the semester.
Subject to further study, restructuring scores may indicate some kinds of writing problems and may serve as pre-instruction indicators of news writing success. We will want to explore such possibilities during the full-scale experiment.

Editing Test

The editing test consists of three parts: wordiness, punctuation, and error detection. Scores on this test are shown in Tables 2 and 3.

We note a significant positive association between editing and ACT English test scores (Figure 2). This seems logical to us since both tests contain somewhat similar test items. If this relationship continues in future studies, we may have a pattern by which to gauge at least the mechanical writing behavior of students both before and after instruction. Should this be the case, we also would have a measuring device for assessing the effectiveness of instruction in this area of news writing.

Data in Table 2 illustrate a recurring problem. Eight student copyeditors had completed two semesters of instruction, yet the scores achieved by two of these students (No.'s 7 and 8) were equalled or exceeded by several beginning news writers (Table 3). Originally
twelve student copyeditors had enrolled in the year-long course at the beginning of the fall semester, 1966, but only eight of them received passing grades at the end of one semester. This failure rate is not atypical. During the past eight years, the percentage of failures in this class has averaged around 25 per cent.

Failures are unproductive. They waste instruction time and learning time.

There are several explanations of this high failure rate. The one that seemed to fit our situation was the absence of basic editing instruction at some time early in the journalism curriculum. It seems plausible that poor editing behavior could result early in a student's career because instruction has not yet focused sharply on the mechanical aspects of writing.

If this were the case, we wondered what the payoff might be in editing ability if we concentrated a portion of our instructional efforts on improving the editing ability of beginning news writers? Would these same students have a better chance to succeed when they enroll in the year-long copyediting course? We will try to find the answer to this question during the longitudinal studies.
Mastery of News Writing

We were seeking predictors of success, as well as patterns of accumulated data, for beginning news writers, but we also had conceptualized a hypothetical dividing line between the writing behavior of professionals and beginning news writers.

Fortunately, four writers with professional writing experience enrolled in Journalism 201 during the full-scale test of the prototype. They underwent the same testing and observation as the other thirty-one students who enrolled in the course during the spring semester, 1967. Because of the professional writing experience of these four writers, they were not included in the pre- and post-instruction comparisons since the results would have been contaminated.

At this point we are going to record the pre- and post-instruction scores of the four professional writers (Table 5) and provide a resume of their working experience so that brief comparisons can be made with the scores of beginning news writers and student copyeditors previously recorded in this chapter. We will return to the concept of mastery of news writing in Chapter VI.

Professional Writer No. 1, who was assigned to
the conventional classroom group, had one year of sports writing experience on a small daily newspaper, plus five months of sports writing experience on a large daily newspaper at the start of the full-scale experiment. Throughout the semester of instruction he was a full-time sports writer on the large daily newspaper.

Professional Writers No. 2, 3 and 4 were assigned to the programed instruction group.

Writer No. 2 had been a sports writer and news reporter for eight years on three different daily newspapers at the time he enrolled in Journalism 201. He was working full time on a large daily newspaper throughout the semester of instruction.

Writer No. 3 had been a news reporter for five years at the time he enrolled. Throughout the semester he was a full-time reporter on a large daily newspaper.

Writer No. 4 had worked one and one-half years as a reporter on a small daily newspaper prior to enrolling in Journalism 201. She was not employed as a professional news writer during the semester of instruction.

Entry (pre-instruction) and terminal (post-instruction) behavior scores of these four professional news writers are shown in Table 5.
Table 5

Entry (E) and Terminal (T) Behavior Scores of 4 Professional News Writers

<table>
<thead>
<tr>
<th>Student</th>
<th>ACT English Scores (E)</th>
<th>Judges' Ratings (E)</th>
<th>Judges' Ratings (T)</th>
<th>Editing Scores (E)</th>
<th>Editing Scores (T)</th>
<th>Restructuring Scores (E)</th>
<th>Restructuring Scores (T)</th>
<th>Logic Scores (E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>27</td>
<td>22</td>
<td>37</td>
<td>111</td>
<td>145</td>
<td>80</td>
<td>80</td>
<td>62</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
<td>32</td>
<td>110</td>
<td>126</td>
<td>84</td>
<td>71</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>36</td>
<td>144</td>
<td>155</td>
<td>82</td>
<td>88</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>22</td>
<td>40</td>
<td>136</td>
<td>158</td>
<td>77</td>
<td>70</td>
<td>58</td>
<td></td>
</tr>
</tbody>
</table>

If we now compare terminal behavior data in Tables 2-5, we can see some striking differences between the writing behavior of professional and nonprofessional writers. The highest post-instruction judges' ratings achieved by a beginning news writer was 25 (1 point above average), while the same judges rated the professional news writers from a low of 32 to a high of 40.

In editing, the highest beginning news writer's score was 140, which three professional news writers exceeded. Only three student copyeditors were able to
match the editing scores of three of the four professional news writers.

A comparison of pre-instruction restructuring scores shows that only three beginning news writers in Table 4 (Nos. 4, 9 and 10) were comparable to three of the four professional writers.

Such comparative data enrich our study and may make it possible to eventually operationalize the concept mastery of news writing.

Prototype Program Decision

Based on the anomaly evident between final grades and judges' ratings (Figure 2) and the need for a rigorous study of writing variables, and the influence of instruction upon these variables, we decided to move into the design, development and testing of a prototype program of instruction (Chapter III).

The preliminary study had given us some encouragement to proceed and, at the same time, had clearly outlined the need for measurements of entering and terminal behavior insofar as news writing was concerned. Another need also had become evident. We not only had to study a group of students, we had to look more closely at individual students in an effort to learn more about their
writing behavior in an effort to find clues to successes and failures which may not be illuminated by statistical treatments or summaries of group activities.
Chapter III

DESIGNING AND DEVELOPING THE PROGRAM

This chapter will outline the problems, the decisions, and the methodological procedure during the design, development and initial testing of the prototype program of instruction. There will be three major sections in this chapter: design of the program, development of the program, and initial testing and revision of the program.

Design of the Program

In this section, these topics will be considered: objectives of the program; basic assumptions about the kinds of learners who will be instructed by the program; role of the teacher; and learning experiences and behavior deemed necessary if the objectives are to be reached.

Objectives of the Program

Stating objectives in concrete testable form proved a difficult task, although we were able to
draw on help from others, such as Bloom, Tyler and Mager.

As defined by Mager, "An objective is an intent communicated by a statement describing a proposed change in a learner—a statement of what the learner is to be like when he has successfully completed a learning experience."\(^1\)

Terminal behavior refers to "the behavior you would like your learner to be able to demonstrate at the time your influence over him ends."\(^2\)

Intermediate behavior is the behavior a learner should demonstrate if he is to achieve terminal behavior.

Behavior means any visible activity displayed by the learner.

Our first task was to state, in testable terms, the terminal objective of the beginning news writing course. After some discussion, this objective was stated as follows: TO WRITE NEWS STORIES OF PROFESSIONAL QUALITY.

The objective states what the student must be able to do (write news stories), and what the quality

\(^1\)Mager, op. cit., p. 3.

\(^2\)Ibid., p. 2.
of the writing should be (professional quality). We arbitrarily decided that successful attainment of the objective would be based on a pooled judges' rating of 18 (which would most likely require ratings of average professional quality from at least two of the judges on the panel). This minimum standard of performance in global news writing behavior was based, in part, on the fact that thirteen of the fourteen news writers represented in Table 3 (Chapter II) had received passing grades in the course and had received pooled ratings of at least 18. As we gained experience with the prototype and with the learning characteristics of student news writers, this minimum standard could be revised.

The same panel of four judges previously used would be used again to evaluate the professional quality of the news stories.

2. The behavior stated in the terminal objective is complex. It involves analysis and synthesis, as well as less complex behaviors identified and defined in the taxonomy developed by Bloom et al.

Using this taxonomy, we selected behavioral objectives which we thought applied to mechanical and global news writing behavior. The selection
below represents five of the six major classifications in the taxonomy, along with seventeen of the twenty-three sub-classes (with code numbers). ³

**Knowledge**

1.11 Knowledge of terminology.
1.12 Knowledge of specific facts.
1.20 Knowledge of ways and means of dealing with specifics (organizing knowledge).
1.23 Knowledge of classifications and categories.
1.24 Knowledge of criteria.
1.25 Knowledge of methodology.
1.26 Knowledge of universals in a field.
1.31 Knowledge of principles and generalizations.

**Intellectual Abilities and Skills**

2.00 Comprehension.
2.10 Translation.
2.20 Interpretation.

**Application**

3.10 Application of knowledge and skills to concrete situations.

**Analysis**

4.10 Analysis of elements.

³Bloom, op. cit., pp. 201-206.
4.20 Analysis of relationships.
4.30 Analysis of organizational principles.

**Analysis**

5.10 Production of a unique communication.

Using the taxonomy, the next task was to state intermediate objectives—the steps in mechanical and global news writing which were deemed necessary if learners were to attain the terminal objective. These objectives are shown in Figures 5-9. Each figure represents one instructional section of the prototype program (Appendixes B, C, D, E and F) and carries the same caption as the instructional section.

A format for stating behavioral and content aspects of intermediate objectives was suggested by Tyler. The format looks like this:

<table>
<thead>
<tr>
<th>Content Aspects of Objectives</th>
<th>Behavioral Aspects of Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Functions of Human Organisms</td>
<td></td>
</tr>
<tr>
<td>1. Nutrition</td>
<td>X</td>
</tr>
<tr>
<td>2. Etc.</td>
<td>X</td>
</tr>
</tbody>
</table>

Tyler, op. cit., Basic Principles, p. 32.
We liked the idea of stating objectives in terms of behavioral and content aspects, but we modified the format for two reasons:

1. The behavioral aspect terminology did not fit our needs. For example, the statement about understanding important facts and principles is not explicit enough since it does not indicate how "understanding" is to be sampled, nor does it describe what a learner will be doing when demonstrating that he "understands."\(^5\)

2. The behavioral aspect does not indicate the complexity of the behavior involved and therefore provides little help to the program writer when he is deciding which behavioral objective should come first in the program. This problem largely can be overcome if behavioral aspect statements begin with less complex behavior and continue to more complex behavior (with complexity indicated by reference to the taxonomy of behavioral objectives).

Here, for example, is the procedure for interpreting information in Figures 5-9:

1. Look at Figure 5. Begin the statement of

\(^5\)Mager, op. cit., p. 11.
# Figure 5

Objectives of Section I of Prototype—Writing the Newspaper Lead

<table>
<thead>
<tr>
<th>Content Aspects of Objectives</th>
<th>Behavioral Aspects of Intermediate Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To Identify</td>
</tr>
<tr>
<td>1. Elements That Constitute News</td>
<td>1.11 1.12</td>
</tr>
<tr>
<td>2. Different Kinds of Reporters</td>
<td>1.11 1.12</td>
</tr>
<tr>
<td>3. City Editor</td>
<td>1.11</td>
</tr>
<tr>
<td>4. Newspaper Lead</td>
<td>1.11</td>
</tr>
<tr>
<td>5. Kinds of Newspaper Leads</td>
<td>1.11 1.12</td>
</tr>
<tr>
<td>6. Time Element in Leads</td>
<td>1.11 1.12 1.20</td>
</tr>
<tr>
<td>7. Subject-Verb Structure of Lead</td>
<td>1.11 1.20 1.25</td>
</tr>
<tr>
<td>8. Length of Lead</td>
<td>1.31 1.31 1.20</td>
</tr>
<tr>
<td>9. Backing into Lead</td>
<td>1.11 1.31 1.20</td>
</tr>
</tbody>
</table>
## Objectives of Section II of Prototype—Writing News Stories

<table>
<thead>
<tr>
<th>Content Aspects of Objectives</th>
<th>Behavioral Aspects of Intermediate Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To Identify</td>
</tr>
<tr>
<td>1. Inverted Pyramid Structure of News Stories</td>
<td>1.11</td>
</tr>
<tr>
<td></td>
<td>1.20</td>
</tr>
<tr>
<td></td>
<td>1.25</td>
</tr>
<tr>
<td>2. Logical Links Between Paragraphs</td>
<td>1.11</td>
</tr>
<tr>
<td></td>
<td>1.12</td>
</tr>
<tr>
<td></td>
<td>1.20</td>
</tr>
<tr>
<td></td>
<td>1.25</td>
</tr>
<tr>
<td></td>
<td>1.31</td>
</tr>
<tr>
<td>3. Transitional Words Between Paragraphs</td>
<td>1.11</td>
</tr>
<tr>
<td></td>
<td>1.20</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Transitional Words Between Sentences</td>
<td>1.11</td>
</tr>
<tr>
<td></td>
<td>1.20</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Objectives of Section III of Prototype—Editing Your Own Copy

#### Content Aspects Of Objectives

<table>
<thead>
<tr>
<th>Behavioral Aspects of Intermediate Objectives</th>
<th>To Identify</th>
<th>To List</th>
<th>To Recall</th>
<th>To Contrast</th>
<th>To Compare</th>
<th>To Write</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Wordiness</td>
<td>1.11</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
</tr>
<tr>
<td>2. Editorializing In News Stories</td>
<td>1.11</td>
<td>1.24</td>
<td>1.20</td>
<td>4.10</td>
<td>4.10</td>
<td></td>
</tr>
<tr>
<td>3. Attributions In News Stories</td>
<td>1.11</td>
<td>1.20</td>
<td>4.10</td>
<td>4.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Copyediting Symbols</td>
<td>1.11</td>
<td>1.20</td>
<td>1.25</td>
<td>3.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Detection Of Errors</td>
<td>3.10</td>
<td>3.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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the intermediate objective with the behavioral aspect, "to identify."

2. Complete the statement by adding to it the content aspect of the behavior, such that the completed statement reads: "To identify elements that constitute news."

3. The intermediate objective specified in the next column is: "To list elements that constitute news." By doing this, the learner would exhibit knowledge of specific facts (the code number --1.12-- used in the taxonomy).

4. In the column headed "to recall," a test item or items should show if the learner has understood what he is supposed to learn from that part of Section I dealing with the "elements that constitute news."

It is not our purpose to review the difficulties that Bloom et al., experienced in defining the classes and sub-classes of behavioral objectives. They recognized that classes of behavioral objectives cannot be neatly compartmentalized without overlapping or intermingling of behaviors.

We found, however, that the adaptation of the taxonomy to the two-way dimensional chart suggested by Tyler proved helpful in stating the objectives and
organizing subject matter according to behavioral complexity

Assumptions About Kinds of Learners

1. All students entering the program will have some knowledge, abilities and skills in writing. Some will have had previous high school training in news writing. Based on our previous experience with students in Journalism 201, we believed that the prototype could be designed to help all enrollees regardless of prior journalism training.

2. For those students with previous journalism training, part of the program would help them to review some of the basics of news writing.

3. Since the program would be used by learners who paced themselves, those students who had previous instruction or training in news writing could work through the program as fast as their abilities would allow.

We believed, however, that differences between students with and without high school journalism instruction and/or training would tend to disappear during the program of instruction.

4. Some students would need remedial instruction. Examinations at the end of each section
of programmed instruction would help to identify these students.

Role of the Teacher

A major problem in programing instructional materials intended to bring about changes in writing behavior is the absence of objective criteria of evaluation. There is no such thing as one "correct" way of writing a news story even though consensus might indicate which of several news stories is "better."

Part of our strategy of program design was to provide model news stories which would make it possible for learners to immediately compare the stories they wrote with the models. But no program could contain the multitude of possible variations in final products—all of them perhaps representing acceptable global behavior responses by student writers.

Glaser has pointed out that "if the discriminations involved are too difficult, the teacher is needed to make them."6

A principal role of the teacher then is to evaluate complex writing behavior. We believed that evaluation of mechanical writing behavior could be

more easily applied by the learner if he is provided with built-in program aids.

The timeliness of evaluation is related to reinforcement. By reinforcement, we mean that a student's correct response is strengthened by almost immediate knowledge of how he responded. Therefore, another major role of the teacher is to reinforce correct behavior—especially more complex behavior where self-evaluation by the learner is more difficult.

Bruner has written that "most learning starts off rather piecemeal without the integration of component acts or elements. Usually the learner can tell whether a particular cycle of activity has worked—feedback from specific events is fairly simple—but often he cannot tell whether this completed cycle is leading to the eventual goal."7

The teacher, as part of the program of instruction, can reinforce the learner when the learner is headed toward the eventual goal (writing news stories of professional quality), and redirect him

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when confusion or uncertainty appear to be interfering with learning.

We also need to remind ourselves that learning is a characteristic of the individual. It is the individual learner who needed, or needs, help at a given moment.

A program of instruction should, if it is properly designed and developed, free the teacher from some tasks which could easily be the responsibility of the learner, thus giving the teacher more time in which to help individuals. The establishment of such tutorial relations is a major goal of programed instruction. If the prototype proves successful, then we will have found a way of reducing the unfavorable student-teacher ratio by helping to establish the teacher in the role of tutor.

Another major role of the teacher is that of observer. No program can be designed and developed which will anticipate all of the difficulties experienced by learners. During initial tryouts of the prototype, a competent observer should be present to record notable behavior. Reports by the teacher-observer can be valuable when decisions are being made on program revisions.

Lastly, the teacher can fulfill the role of
administrator. Records of test results, absenteeism, and the kinds of errors being made by students are essential to evaluation of the program. In addition, someone must be responsible for distributing sections of the program and other instructional materials (audio tapes, newspapers, tape recorders, and pasteups of newspaper stories used as models for writing exercises).

After some experience is gained with the prototype, one or more of the above roles can be done away with.

Learning Experiences and Behavior
Deemed Necessary if Objectives Are To Be Reached

1. There is some evidence to show that learners do better when given logically-organized materials built around important generalizations. This approach de-emphasizes memorization.

We have conducted a number of studies at the University of Chicago in connection with the learning of college students and our data in general are much more in harmony with the theory of generalization than they are with any theory of specific stimulus-response learning. Hence, I tend to view objectives as general modes of reaction to be developed rather than highly specific habits to be acquired.8

8Tyler, op. cit., Basic Principles, p. 28.
We made every effort to de-emphasize memorization of isolated facts. A glance at Figures 5-9, under the column headed "to recall," shows which facts are to be memorized. These are indicated by the code numbers in the 1.00 (knowledge) series. Comprehension (2.00) requires more than rote memorization.

Basically we organized the five sections of the prototype program around important generalizations about news writing. Our strategy was to involve learners in the global aspects of news writing as quickly as possible, rather than take the learner step-by-step through the mechanics of news writing and then on to the important generalizations related to global writing.

We are not sure which approach is better: the step-by-step approach that begins with the mechanics of news writing, or the large-step approach that quickly takes the learner into the realm of global writing. In this respect, however, we looked upon the sequencing of the sections of the program material as an experimental variable which could be altered during longitudinal studies.

2. The amount of practice also is a variable that can be manipulated.

The amount of practice variable should be mentioned only because it seems to be disappearing in emphasis, as such, in experi-
mental psychology, but is very much a topic in educational psychology. In work with programed instruction, one becomes increasingly aware of how little is known that can be applied about the variable of practice, which is an old and respectable topic in learning. With the present techniques for designing programs, the amount of practice and review employed needs to be completely empirically determined and is highly influenced by individual differences.9

Practice and knowledge of success are closely related learning variables. Students need to know when they are practicing correct responses. This does not mean that every response should be a correct one. Incorrect responses are valuable indicators of program weaknesses; or they may point the way to remedial instruction by means of program "branching" or tutorial assistance.

The amount of practice is an experimental variable which can be altered during longitudinal studies.

3. The "anxiety" variable was another problem we faced as we designed the prototype program.

There is some evidence to indicate that high drive and anxiety lead one to be more prone to functional fixedness. It is obvious that corrective information of the usual type, straight feedback, is least useful during such states, and that

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an adequate instructional strategy aims at terminating the interfering state by special means before continuing with the usual provision of correction.10

We previously had been told that anxiety was operating in the beginning news writing course. When asked to critique the course, several students had complained about weekly news story quotas. Two students (Table 4) were unable to catch up once they had fallen behind, even though they appeared to go through the motions that should have led to the production of news stories. However, some students seemed to do better under the pressure of quotas and deadlines.

Certainly we need to know a great deal more about "functional fixedness," "anxiety," and "drive" as they relate to learning. The fact remains that we had to make a decision in regard to the amount of pressure that we would apply to the conventional and programmed instruction classes. We made the decision on the bases of learning by reward rather than learning by punishment; that is, we sought to encourage both groups by means of comments being made by the instructor-tutor who would teach both classes. Also, the system of weekly quotas would not be used in these classes.

10Bruner, op. cit., pp. 52-53.
Another variable that concerned us was how to achieve transfer of learning to actual news writing situations.

Basically we looked upon practice as the means of achieving transfer. Practice exercises were prepared by disarranging news stories which already had appeared in newspapers. When the learner had completed a writing exercise, he could compare and contrast the product of his global writing behavior with the "real" one. In addition, those students in the programed instruction group were directed into a tutorial relationship at which time the instructor pointed out similarities and differences between the work of the student and the work exhibited by a professional news writer. In this connection, we believed that similarities could be a source of encouragement to the learner and an indicator of progress being made toward the terminal objective.

It was not until later—almost at the conclusion of the large-scale test of the prototype—that we realized that we had made a mistake in our strategy as it related to transfer of learning and to boredom. This mistake will be discussed in Chapters V and VI.
5. Boredom was another variable which occupied our thoughts as we designed and wrote the program.

Much as been written about all of these motives that unceasingly push the creative mind on to the path of glory, but I have heard little about boredom—-one of the mightiest motives of all which acts by ruthlessly blocking all other avenues of escape.

We believed boredom to be a major problem in programmed instruction—especially after the novelty, or Hawthorne, effect wears off. We therefore sought ways to identify and to prevent it. Some built-in devices were:

a. The tutorial relationship. At various stages in programmed instruction, learners were directed into conferences with the tutor-observer. Thus, the student received personal attention which hopefully would reduce the effect of boredom.

b. Varied activity. Students not only worked with printed instructional material, but they also were instructed in part by means of audio tape recordings which presented both remedial instruction and news problems to be solved.

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c. Application. Throughout the program the student was required to apply what he had learned to various mechanical and global writing situations.

Again, one of the principal roles of the teacher was that of observer. We hoped that the observer would be able to detect the onset of boredom and be able to identify activities which seemed to reduce boredom.

**Development of the Program**

This will not be a detailed report on the development of the program. How well or how poorly we did can be judged by an examination of Appendixes B through F and by the results reported in Chapters V and VI.

There are, however, several generalizations we will make in regard to the developmental stage of programmed instruction.

1. The statements of objectives (Figures 5-9) were extremely helpful in enabling us to select and to organize subject matter.

2. Although our objectives were specific, we believed that they would lead to generalized modes of response in global news writing behavior. Throughout the design and development of the prototype, we
sought to emphasize, illustrate, and seek responses to important news writing generalizations.

3. Generally speaking, learners dislike textbooks which are crammed with bits of knowledge. Many textbooks do not provide for application of knowledge to writing tasks.

In the development of the program, we were aware of studies which had reported on "forgetting" rates:

In general, forgetting of knowledge learned is very rapid. One series of studies conducted at the college level reported that 50 per cent of the material known when the student finished a certain college course had been forgotten within one year and 80 per cent had been forgotten in two years. These studies also suggest certain conditions that greatly reduce the forgetting of knowledge. One of these conditions is the opportunity to use this knowledge in daily life.\textsuperscript{12}

4. The program should provide for testing as the learner proceeds through the program. We adopted the strategy of internal tests (tests and answers included in programed materials) and external tests (examinations at the end of each section).

\textsuperscript{12}Tyler, op. cit., Basic Principles, pp. 25-26.
As the curriculum is being built, it must be tested in detail by close observational and experimental methods. It is on the basis of 'testing as you go' that revision is made. It is this procedure that puts the evaluation process at a time when and place where its results can be used for correction while the curriculum is being constructed.\(^\text{13}\)

5. We also adopted the strategy of "redundancy" in our efforts to teach news story organization (Appendix C). In later program sections, redundancy was faded out as much as possible.

One word of caution to the teacher-turned-program writer. Time and again we found ourselves writing in a leisurely "textbookish" manner. We constantly had to remind ourselves that reading time was an important factor in learning efficiency.

Program Testing and Revision

As soon as the prototype sections had been written, we asked a freshman journalism major to work through the sections, including the examinations at the end of each section.

This coed had no previous journalism training or instruction in news writing. In this respect she

\(^\text{13}\)Bruner, op. cit., pp. 70-71.
made a good subject. But based on her English ACT test score (27), she ranked at the 87th percentile among 1,290,612 college-bound high school seniors. As it later developed, only three of the thirty-five students enrolled in the spring semester (1967) of Journalism 201 had higher ACT English test scores. Ideally we should have used students with different academic potential (as measured by ACT scores), but it was not possible at that time for us to do this.

We instructed the coed to work through the Section I of the prototype program and to stop whenever she had a question or experienced difficulty. We used a tape recorder to record these. In all, she raised twelve questions before taking the examination, which required her to answer questions and to write newspaper story leads. Her performance was flawless.

Not only did she demonstrate that she could write newspaper story leads, but she appeared to understand the rules of punctuation quite well. When questioned about this, she replied, "As I was reading the instructional material, I noticed how the examples were punctuated."

This, then, was an important side effect of
Section I—a learning bonus that we had not anticipated.

As for her general impression of Section I, she said, "I thought it made everything simple and easy to remember."

Based on her comments, we proceeded to make minor revisions in Section I and to mimeograph a sufficient quantity for the start of the spring semester.

We followed the same procedure with Section II of the prototype program. The student worked through the material and we recorded whatever difficulties she encountered. Her responses to internal test questions were so much like the programmed answers that we continually asked if she had looked at the answers before answering the questions. We had not observed her doing this and she assured us that she had not.

The Section II examination consisted of writing two complete news stories (one of them fifteen to twenty paragraphs long, and the other ten to twelve paragraphs long). The student performed extremely well in writing both stories with one notable exception. She omitted a key fact in the lead (first paragraph) of the longer of the two stories.

This bothered us. We were not sure if there
was a serious defect in Section I, or if Section II was defective in not reviewing several key generalizations contained in the first section.

We first asked the student to look at the lead of the longer news story that she had written and to tell us if there was anything that might be wrong with it. She was unable to detect the omission. When we pointed this out, she replied, "Oh, I see what you mean."

It was at this point that we decided to "branch" the program. If a student missed the lead in either or both of the examination writing exercises, he would be given remedial and review information, as well as another examination story to write, by means of tape recordings.

Here was the technique that we used:

1. A student in need of the "branch" program material is identified on the basis of Section II examination news stories.

2. The student then is given two tape recordings. The first tape recording, made by the teacher-observer, explains why the student is listening to it:

   "You are listening to this tape recording because you made a mistake in the lead of the news story that you wrote. You mistakenly . . . ."
We then identified the mistake as an omission of one or more important facts in the first paragraph of one or both news stories. At this point we reviewed key generalizations in Section I and gave illustrative examples. At the conclusion of the ten-minute tape, students were instructed to write another news story based on disorganized facts presented by means of a second tape recording.

We used tape recordings for several reasons:

1. As a change of pace for learners who, up to the examination at the end of Section II, would only have received instruction from mimeographed material and the tutor.

2. As a means of checking the ability of students to correctly record facts presented aurally before writing the news story; that is, note-taking accuracy.

3. Tape recordings are easy to prepare and to use.

The tape recordings were completed inside of two days. The student who was assisting us listened to them and performed very well in writing the additional news story.

We then altered our plans concerning the way in which Section III and IV examinations would be
presented. These were tape-recorded because we were hoping for another important side effect—accuracy in note-taking which is extremely important in any news-gathering situation.

The remaining sections were tested in the manner described above, revisions were made, and we were ready to begin the large-scale experimental use of the program; i.e., use the program in a classroom situation.
Chapter IV

EXPERIMENTAL AND STATISTICAL DESIGN

This chapter will discuss sample selection, hypotheses, experimental design, internal and external validity of the experimental design, statistical design (including reliability and validity of instruments), patterns of data (ACT English scores, formal logic scores, restructuring scores), and interview data.

Sample Selection

Thirty-seven students enrolled in Journalism 201 at the beginning of the spring semester, 1967. One student withdrew from the course after the first session and did not complete the pre-testing phase. Another student withdrew from college after four weeks of instruction in the conventional classroom group.

Before students were randomly assigned to one of the two experimental groups, the following pre-tests were administered: 1. a news story writing exercise (Appendix G), no time limit, with the stories judged by the same panel of four professional news
writers previously used; 2. an editing test (Appendix A), no time limit; 3. a five-minute logic test (Appendix H), and 4. a restructuring test (Appendix I), no time limit. These instrument will be discussed more fully later in this chapter.

Sixteen of the thirty-six students had no previous news writing instruction or training, either in high school, college or professionally. They were randomly assigned to the programed and conventional classroom group in equal number; that is, eight to each group.

Sixteen other students had received news writing instruction and/or training in high school. Although we did not believe that this experience and/or training would contaminate comparisons between the two groups at the end of the semester, we decided to control this variable by randomly assigning eight of the students to the programed instruction group and eight to the conventional classroom group. Random assignment of the students to each group prevents biasing.

Four of the thirty-six students who completed the pre-testing phase had professional news writing experience. If they had been included in the two groups of sixteen students each, test results and comparisons would have been contaminated. Therefore, data on these
four students were maintained separately from the two groups. Three of the professional news writers were assigned to the programmed instruction group so that they might give us reports on the value of the program (in addition to test results which would be obtained from them). One professional news writer was assigned to the conventional group.

It should be pointed out that no college students are excluded from enrolling in Journalism 201 and that none of the students who enrolled was excluded on the basis of test results or for any other reason. Therefore, we were dealing with the population of beginning news writers at that time among those students enrolled at Marshall University.

The pre-instruction scores and ratings of all students in both groups are shown in Tables 6-7.
Table 6
Entry Behavior Scores of 19 Students
In Programed Instruction Group

<table>
<thead>
<tr>
<th>Student No.</th>
<th>Judges' Rating</th>
<th>ACT Score</th>
<th>Editing Score</th>
<th>Logic Score</th>
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8 Students—No Previous High School News Writing Instruction or Training

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</tr>
<tr>
<td>7</td>
<td>12</td>
<td>16</td>
<td>68</td>
<td>38</td>
<td>44</td>
</tr>
<tr>
<td>8</td>
<td>12</td>
<td>7</td>
<td>93</td>
<td>50</td>
<td>65</td>
</tr>
</tbody>
</table>

3 Students—Professional News Writing Experience

<table>
<thead>
<tr>
<th>Student No.</th>
<th>Judges' Rating</th>
<th>ACT Score</th>
<th>Editing Score</th>
<th>Logic Score</th>
<th>Restructuring Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15</td>
<td>110</td>
<td>38</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>23</td>
<td>114</td>
<td>64</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>29</td>
<td>22</td>
<td>136</td>
<td>58</td>
<td>77</td>
</tr>
</tbody>
</table>
### Table 7

Entry Behavior Scores of 17 Students
In Conventional Classroom

<table>
<thead>
<tr>
<th>Student No.</th>
<th>Judges Rating</th>
<th>ACT Score</th>
<th>Editing Score</th>
<th>Logic Score</th>
<th>Restructuring Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>26</td>
<td>119</td>
<td>54</td>
<td>84</td>
</tr>
<tr>
<td>2</td>
<td>21</td>
<td>28</td>
<td>122</td>
<td>72</td>
<td>72</td>
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<tr>
<td>3</td>
<td>18</td>
<td>21</td>
<td>79</td>
<td>70</td>
<td>72</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>27</td>
<td>106</td>
<td>64</td>
<td>78</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
<td>20</td>
<td>109</td>
<td>42</td>
<td>70</td>
</tr>
<tr>
<td>6</td>
<td>15</td>
<td>20</td>
<td>94</td>
<td>62</td>
<td>57</td>
</tr>
<tr>
<td>7</td>
<td>12</td>
<td>21</td>
<td>86</td>
<td>70</td>
<td>52</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>19</td>
<td>53</td>
<td>62</td>
<td>44</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student No.</th>
<th>Judges Rating</th>
<th>ACT Score</th>
<th>Editing Score</th>
<th>Logic Score</th>
<th>Restructuring Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18</td>
<td>23</td>
<td>117</td>
<td>60</td>
<td>78</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>23</td>
<td>93</td>
<td>58</td>
<td>66</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
<td>22</td>
<td>120</td>
<td>56</td>
<td>70</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>20</td>
<td>95</td>
<td>48</td>
<td>32</td>
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<tr>
<td>5</td>
<td>15</td>
<td>20</td>
<td>96</td>
<td>58</td>
<td>39</td>
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<tr>
<td>6</td>
<td>22</td>
<td>16</td>
<td>72</td>
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<tr>
<td>7</td>
<td>15</td>
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<td>65</td>
<td>52</td>
<td>33</td>
</tr>
<tr>
<td>8</td>
<td>23</td>
<td>19</td>
<td>--</td>
<td>--</td>
<td>58</td>
</tr>
</tbody>
</table>

1 Student--Professional News Writing Experience

<table>
<thead>
<tr>
<th>Student No.</th>
<th>Judges Rating</th>
<th>ACT Score</th>
<th>Editing Score</th>
<th>Logic Score</th>
<th>Restructuring Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>22</td>
<td>27</td>
<td>111</td>
<td>62</td>
<td>80</td>
</tr>
</tbody>
</table>

*This student withdrew from college after four weeks of instruction.*
A comparison of mean scores for each group (excluding the scores of the professional news writers and the student in Table 7 who withdrew from college) shows:

<table>
<thead>
<tr>
<th>Programed Instruction Group</th>
<th>Judges' Rating</th>
<th>ACT Editing Score</th>
<th>Logic Restructuring Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>No High School Training</td>
<td>15.12</td>
<td>19.75</td>
<td>92.37</td>
</tr>
<tr>
<td>High School Training</td>
<td>13.25</td>
<td>19.00</td>
<td>96.12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conventional Classroom Group</th>
<th>ACT Editing Score</th>
<th>Logic Restructuring Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>No High School Training</td>
<td>16.25</td>
<td>22.75</td>
</tr>
<tr>
<td>High School Training</td>
<td>17.28</td>
<td>18.71</td>
</tr>
</tbody>
</table>

The mean scores indicate, insofar as this measure of central tendency shows the differences, that the conventional classroom group had entering behavior scores approximately the same (logic, editing, ACT and restructuring scores) as those in the programed instruction group for those with high school training/instruction. Judges tended to give higher ratings to the students in the conventional classroom group who had training/instruction compared with the comparable group in programed instruction.

As for those students in both groups who had no
previous instruction/training, the mean scores of the conventional classroom students exceeded those of the programed instruction group in judges' ratings, ACT English, and restructuring, with only a very small difference in logic scores.

If the ACT English test scores are pooled in each group, the mean score for the conventional classroom group is 20.87 (standard deviation of 4.81), and 19.38 for the programed instruction group (standard deviation of 5.28).

Although the ratings and test scores generally are higher in the conventional classroom group, we decided not to weight the ratings or scores in any test category when making post-instruction comparisons of the two groups. The effect of this decision is to make statements about the effectiveness of the programed instruction method, vis-a-vis the conventional classroom method, less susceptible to error. The decision will put a greater burden of proof on the programed instruction method.

**Hypotheses**

The statement of the problem in Chapter I requires a comparison of two methods of instruction.
Each method of instruction is an independent variable. We are seeking to determine the relative effectiveness of programmed and conventional classroom instruction on news writing behavior. We will base our conclusions primarily on two dependent variables—judges' ratings and editing test scores.

The major hypothesis generated by the problem statement is: The programmed instruction group (group one) will equal or surpass the conventional classroom group (group 2) in news writing ability.

The hypothesis can be stated symbolically in this way:

\[ H_0: \text{Group 1(n.w.a.)} \leq \text{Group 2(n.w.a.)} \]
\[ H_1: \text{Group 1(n.w.a.)} \geq \text{Group 2(n.w.a.)} \]

We hope to reject the null hypothesis and to accept the alternate hypothesis. If this becomes possible, we then will test the hypothesis that group one is either equal to, or surpasses, group two in news writing ability.

\[ H_0: \text{Group 1(n.w.a.)} = \text{Group 2(n.w.a.)} \]
\[ H_1: \text{Group 1(n.w.a.)} > \text{Group 2(n.w.a.)} \]

If group one equals, or surpasses, group two in news writing ability, the method of instruction will permit us to make the statement that it took less
time for group one to equal, or surpass, group two in news writing ability.

We will define time as the total number of student hours required by each method of instruction.

There will be individual variations in total time required of students in the conventional classroom group since this instructional method requires students to find and to write news stories on their own time. Thus, if each student finds and writes at least one news story during the semester, the amount of time required has exceeded that of any other student in the programmed instruction group (excluding absences from formal classroom periods). In the programmed instruction group, students are provided with the basic facts in scrambled order from which they make selections in writing their news stories. They are instructed to do all of their work in the classroom.

In addition, the conventional classroom group was assigned outside-the-classroom reading. Two textbook quizzes were given in an effort to assure that students did the required reading. All of the reading material for the programmed instruction group was kept in the classroom and students were requested not to do any outside reading that related to news writing.
Also, the design of programmed instruction materials was such as to eliminate lectures and news writing demonstrations by the instructor, casting him in the role of tutor. In the conventional classroom, however, the instructor's tasks included lectures, demonstrations, assignment of news stories, criticism of news stories, and grading of news stories.

If time is accepted as a measure of efficiency, then we will be able to say that learning was more efficient in the programmed instruction group if this group equals, or surpasses, the news writing ability of the conventional classroom group.

The condition attached to the efficiency statement is an obvious requirement. Without this qualitative criterion, efficiency is meaningless.

**Experimental Design**

An experiment is an investigation that includes two elements: manipulation or control of some variable or variables by the investigator and systematic observation or measurement of the result. The variable to be manipulated in each group is the method of instruction (the independent variable). We wish to find out what effect this has on two dependent variables,
which we have identified as judges' ratings (global news writing behavior) and editing test scores (mechanical news writing behavior).

We defined our population as all of the beginning news writers who enrolled in Journalism 201 at the beginning of the spring semester, 1967. The universe of beginning news writers was all beginning news writers enrolled in a course comparable to Journalism 201 during the spring semester at any college or university.

The design of our experiment can be represented symbolically as:

Programed Instruction Group: \( R O_1 X_1 O_1 \)
Conventional Classroom Group: \( R O_1 X_2 O_1 \)

The symbol \( R \) represents randomized assignment of students to each experimental group. The symbol \( O_1 \) represents whatever tests were administered. Vertical alignment indicates that the tests were administered to both groups at the same time. The symbols \( X_1 \) and \( X_2 \) represent the two experimental treatments (programed instruction and conventional classroom instruction), with vertical alignment indicating that the treatments took place during the same span of time.
Internal Validity of Experimental Design

The problems of internal and external validity of pre-experimental, experimental, and quasi-experimental designs are discussed by Campbell and Stanley.¹

Eight different classes of extraneous variables can affect the internal validity of experimental designs: history, maturation, testing, instrumentation, regression, selection, mortality, and interaction of extraneous variables; e.g., interaction of selection and maturation. Without internal validity, the experiment is uninterpretable.²

1. History—i.e., events occurring between the first and second measurements, other than the experimental treatment, which would affect the results.
   a. The programed instruction group could obtain no instruction in news writing except in the Journalism 201 classroom. No other course in news writing is offered at the university.


²Ibid., p. 173.
Department faculty and students were requested not to give information or laboratory training to the sixteen students in the programmed instruction group who had no professional news writing experience. The three professional writers in this group were exceptions since two of them worked on daily newspapers throughout the semester. In addition, the sixteen students were instructed not to do any outside reading in journalism textbooks or to seek any outside-the-classroom help in news writing.

The above students might, however, undergo instruction in English composition courses concurrent with instruction in news writing. Our experimental design randomizes this extraneous variable.

b. Similarly, the conventional classroom group could receive English composition instruction which might affect their writing behavior. Again, this variable is randomized.

c. A major difference between the two groups was the inclusion of news writing assignments which had to be completed in the laboratory scheduled twice weekly for the conventional classroom group. During these practice-writing laboratories, these students were encouraged to seek help from faculty
and staff members of the university newspaper. However, this difference between the history of the two groups characterizes a difference in the two methods of instruction (the independent variables).

d. Although the same instructor taught both classes, and though he endeavored to cover much the same material, the histories of the two groups are different, but these again are differences which characterize the two methods of instruction.

2. Maturation—i.e., processes within the subjects which are operating as a function of the passage of time, such as growing older, more tired, etc.

This variable is controlled by limiting formal classroom instruction to the same length of time for both groups. Randomized assignment of students to each group is another control, since it precludes systematic biasing.

By using the above procedures, maturation should either be the same during formal classroom periods or, if not, variations are randomized should they be individual, rather than group.

3. Testing—i.e., the effects of taking a test on the scores of the second or subsequent tests. Sev-
eral factors militate against this variable confounding the comparisons.

a. There was a three and one-half month lapse of time between pre- and posttests, which would make it difficult for subjects to memorize test items or the answers they gave.

b. Students were not given pre- or posttest answers. The results were not discussed with them at any time.

c. If memorization is a factor, it was randomized in both groups.

d. There were many test items, which would tend to reduce the memorization factor.

4. Instrumentation—i.e., changes in the calibration of a measuring instrument, or changes in observers or scorers, may produce changes in obtained measurements.

The editing and restructuring tests remained the same for pre- and posttests. The panel of judges remained intact and unchanged throughout the semester. The same observer (the instructor) was present in both classrooms and he scored all tests (logic, editing, and restructuring). Only minor changes were made in the fact sheet between pre- and posttests of news writing.
(see Appendixes G and J) as a precaution against memorization. These changes in no way affected the difficulty of the news writing assignment.

5. Statistical regression—i.e., where groups have been selected on the basis of their extreme scores.

This variable would not confound the results because the population of beginning news writers at the university was used for the experiment. No student was selected or rejected on the basis of test scores.

6. Selection—i.e., differential selection of students for the comparison groups.

All students who enrolled in Journalism 201 were used in the experiment. Also, randomized assignment of students to the experimental groups is designed to prevent differential selection. In the case of students with high school news writing instruction/training, this was a variable that was controlled and then randomized between the two groups.

7. Experimental mortality—i.e., differential loss of subjects from the two groups.

Only one of the thirty-two students randomly assigned to the two groups was lost during the experiment when he withdrew from college. We believe that this is a small mortality rate.
8. Interaction of the selection variable with other extraneous variables--e.g., selection and maturation, selection and testing, etc.

If extraneous variables are interacting with the selection variable, then they are operating in a randomized way. Randomization may be regarded as a substitute for experimental controls.

**External Validity of Experimental Design**

The factors that can jeopardize external validity, or representativeness, are: interaction of testing and the experimental treatment, interaction of selection and the experimental treatment, reactive arrangements, and multiple-treatment interference.

1. Interaction of testing and the experimental treatment--i.e., a pretest increases or decreases a subject's sensitivity or response to the experimental variable. Should this happen, results could not be generalized to the population or to the universe.

Since we are using the entire population of beginning news writers at Marshall, the results would be generalizable to that population if, as we believe, the pretests are not increasing or decreasing the sensitivity of students to the experimental treatments.
The variety of testing, the number of test items, and the length of the experimental treatments would tend to reduce such interactive effects, if they exist.

We recognize, of course, that the results of the comparisons of the two groups cannot be generalized to the universe of beginning news writers at the college level. At the same time, however, we do not believe that the beginning news writers at Marshall—based, for example, on ACT English test scores—will be much different from populations of beginning news writers at other colleges and universities. We would hope that the battery of entering behavior tests eventually will be used by other colleges and universities as predictors of news writing success if we should obtain sufficient data after repeated trials to give us confidence in the discriminations that these tests make.

2. Interaction of selection biases and the experimental treatment—i.e., that differential selection would make the experimental results unrepresentative.

Our selection represents only the population at Marshall University. To have randomly sampled the universe and conducted a lengthy experiment would have required far more in the way of resources than we had available.
3. Reactive effects of the experimental arrangements—i.e., the experimental arrangement helps to lessen generalization about the effect of the experimental treatment.

We believe that a Hawthorne effect was operating during the initial phase of programed instruction, but observation and learner reports indicate that this confounding variable ceased to be a factor before the mid-semester point was reached. The length of the experimental treatment seemed to suppress the Hawthorne effect and, perhaps, to extinguish it.

4. Multiple-treatment interference—i.e., multiple treatments being applied to the same students which would make the results obtained unrepresentative.

If we were trying to identify a specific variable which would alter or influence writing behavior, then the experimental design would be weakened by multiple treatment. We are not, however, trying to isolate specific causes of writing behavior changes. Rather, we are attempting to bring about complex behavioral changes which require multiple treatments. We first want to establish that the multiple treatments do bring about desirable changes. If we are successful, we may then wish to study the effect on writing behavior if
one variable—the experimental variable—is manipulated. At present, the experimental variables are the methods of instruction, and each method consists of many variables.

**Other Confounding Variables**

1. **Age.** All but two of the students in the experimental groups fell into the 19-21 age bracket (excluding the professional news writers). We can find no evidence which indicates that age is a confounding variable among students of this age bracket. If it is, the variable has been randomized.

2. **Sex.** Studies of programed instruction generally show that sex is not a confounding variable. If the variable is operating, it has been randomized.

3. **Teacher.** This is a confounding variable if an attempt was being made to generalize to other populations and to the universe. By this we mean that the caliber of instruction in the classroom depends upon the teacher to a considerable extent.

The instructor who served in both the conventional and programed instruction classrooms had nine years of professional news experience on daily newspapers and eight years as a journalism educator prior to the start
of the experiment. He was thoroughly familiar with the programe instruction material and attempted to include important news writing information in discussions and demonstrations in the conventional classroom. The methods were different in the two classrooms, but important generalizations, illustrative examples, and techniques for critiquing news stories were comparable.

The effectiveness of the teacher may be a confounding variable when an attempt is made to generalize the results to other populations, but it should be less operative in programe instruction where students interact with much the same materials.

4. Intelligence. An intelligence factor operates in most educational research, but random assignment is designed to prevent biasing.

Random assignment means that it is possible to make error estimates of uncontrolled but randomized confounding variables. Tests of significance are the error estimates of these variables. The levels of

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significance used for the statistical testing will be noted in the next section of this chapter.

5. Motivation. Like other confounding-type variables, motivation has been randomized in the treatment groups.

Instrumentation

There are two dependent variables—global and mechanical news writing ability. Our operational definitions are:

1. Global news writing ability is the pooled rating given to a student's news story by the panel of four judges.

2. Mechanical news writing ability is the score a student receives on the editing test.

It is by means of these two instruments—the panel of judges and the editing test—that the two groups will be compared.

In our analysis of news writing behavior, we assumed that mechanical news writing behavior is a part of global news writing behavior. We believe that the judges will be influenced, in part, by a student's mechanical news writing ability, but that the judges' ratings will be an indicator of global
news writing ability. This assumption, we believe, is logically valid.

However, certain assumptions about the panel of judges should be tested if we are to have confidence in their ability to judge global writing behavior.

An analysis of variance can help to determine if the four judges assigned approximately the same ratings to a student's global writing behavior at the beginning of the experimental treatments. The same kind of analysis can be made of the judges' ratings at the end of the experimental treatments.

Before an analysis of variance can be made, three assumptions should be met:

1. The individuals in the groups should be selected on the basis of random sampling from normally distributed populations.

2. The variance of the groups should be homogeneous. The assumption of homogeneity of group variance can be tested by Bartlett's test.

3. The samples comprising the groups should be independent.

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The assumptions are not equally critical. Distributions within the groups can be skewed to a rather high degree without affecting the test of significance.

The first and third assumptions depend upon the adequacy of the experimental design. The second assumption—homogeneity of variance—is of critical importance.

To meet the first assumption, students were randomly assigned to the two groups which comprised the population. The basic assumption that we are making is that our groups come from a normally distributed college population.

To meet the third assumption, independent samples may be obtained by the random assignment of the two methods of instruction. In effect, this is what was done when students were randomly assigned to the two groups.

To meet the second assumption, Bartlett's test of homogeneity of variances was used. 5

The following hypotheses will be subjected to Bartlett's test:

1. Pre-instruction judges' ratings:

   \[ H_0: \sigma_1^2 = \sigma_2^2 = \sigma_3^2 = \sigma_4^2 \]
   
   \[ H_1: \sigma_i^2 \neq \sigma_j^2, i \neq j \]

   Our decision rule will be to accept \( H_0 \) (\( \alpha = 0.01 \), two-tailed test) if \( 0.00039 < F < 4.28 \); otherwise we will accept \( H_1 \).

2. Post-instruction judges' ratings:

   \[ H_0: \sigma_1^2 = \sigma_2^2 = \sigma_3^2 = \sigma_4^2 \]
   
   \[ H_1: \sigma_i^2 \neq \sigma_j^2, i \neq j \]

   Our decision rule will be to accept \( H_0 \) (\( \alpha = 0.05 \), two-tailed test) if \( 0.072 < F < 3.12 \); otherwise we will accept \( H_1 \).

In both tests we hope to be able to accept the null hypothesis; i.e., that the variances of the ratings are homogeneous within stated limits of error. The levels of significance were placed at .01 on the pre-instruction ratings and at .05 at the time of post-instruction ratings because we believe that the judges will be able to make finer discriminations in global news writing behavior after students are exposed to news writing instruction and training. Therefore, we are tightening our decision rule.
Our reason for this decision is that we believe it is more difficult to make fine discriminations when the products of global writing behavior generally tend to be of poorer quality. When the qualitative range is wider, we believe it will be easier for judges to make finer discriminations.

If the judges' ratings are found to be homogeneous, then analysis of variance can be made to determine, within stated limits, if the means of the judges' ratings of the same student are approximately the same, both for pre-instruction news writing and for post-instruction news writing. What we want to establish is that the means are approximately the same—that the four judges rate a student's writing behavior as being at approximately the same level before the experimental treatment, and that the judges again are in approximate agreement on the quality of the student's writing after the experimental treatment.

The hypotheses which are generated by an analysis of variance of pre- and post-instruction judges' ratings are:

1. Pre-instruction analysis of variance:

\[ H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 \]

\[ H_1: \text{one or more } \mu_i \neq \mu_j, \text{ for } i \neq j \]
Decision rule: Accept $H_0$ ($\alpha=.01$, one-tailed test) if $F_{.99}(3,120)<3.95$; accept $H_1$ if $F \geq 3.95$.

2. Post-instruction analysis of variance:

$H_0$: $\mu_1 = \mu_2 = \mu_3 = \mu_4$

$H_1$: one or more $\mu_i \neq \mu_j$, for $i \neq j$

Decision rule: compute $F$ ($\alpha=.05$, one-tailed test) and accept $H_0$ if $F<2.68$; accept $H_1$ if $F \geq 2.68$.

The above tests are ways of showing that the same criteria appear to be used by the judges when they are rating global news writing behavior. Obviously if there was no difference in variance (Bartlett's test) or in means (analysis of variance), we would suspect collusion between the judges. If, however, the ratings of a student's news writing behavior vary too greatly, we would suspect that the judges are unable to apply any uniform or similar criteria to their task of rating such behavior. The tests, therefore, are ways of validating the judges. Once this has been done an analysis of covariance can be made.

The analysis of covariance will allow us to determine if there is a significant difference in global news writing ability for each subject and for the two classroom groups from the pre- to the post-in-
struction stages. Using analysis of covariance, we can test these hypotheses:

1. That the mean of the ratings for each student in one group, when compared with the mean of the ratings for each student in the other group, will be equal:

\[ H_0: \mu_2 = \mu_1 \]

\[ H_1: \mu_2 \neq \mu_1 \]

Decision rule: compute \( F (a=.05, \text{one-tailed test}) \); accept \( H_0 \) if \( F < 4.17 \); otherwise accept \( H_1 \).

2. That the judges' ratings increased significantly for both groups as a result of the experimental treatments. To do this, we can pool the thirty-one students both before they are exposed to the treatments and after they are exposed to the treatments and make an analysis of covariance to test the hypothesis:

\[ H_0: \mu_2 = \mu_1 \]

\[ H_1: \mu_2 > \mu_1 \]

Decision rule: compute \( t (a=.05, \text{one-tailed test}) \); accept \( H_0 \) if \( t < 1.67 \); accept \( H_1 \) if \( t > 1.67 \).

The \( t \) test for overall improvement in global news writing ability is equivalent to an analysis of
variance since only two groups are being compared. We can also use the t test to determine if there is a significant difference between the two groups at the end of the treatments. Our hypothesis would be:

\[ H_0: \mu_2 = \mu_1 \]

\[ H_1: \mu_2 \neq \mu_1 \]

Decision rule: Compute \( t (a=0.05, \text{ two-tailed test}) \); accept \( H_0 \) if \(-2.045 < t < 2.045\) or \(|t| < 2.045\); otherwise accept \( H_1 \).

**Editing Test**

We used the split-half method for computing the reliability of the editing test.

The test papers of the sixteen students who had no previous news writing training/instruction were scored on the basis of odd-numbered and even-numbered test items answered correctly. A Pearson product-moment correlation coefficient was computed between the totals for the two sets of scores. The computed coefficient was \( .84 \), which was significant at the .001 level of confidence with 15 degrees of freedom.
The validity of the editing test should be viewed from the standpoint of both content and predictive validity.

1. Content validity. We believe that the editing test has been so constructed that we can claim content validity. This is demonstrated in part by the test's predictive validity.

2. Predictive validity. This is a correlation coefficient between a set of test scores and an external measure; e.g., validating intelligence tests by obtaining a set of test scores and correlating them with final grades.

We obtained a significant positive relationship between editing test scores and ACT English standard scores (Figure 2), and a strong, but not significant, relationship between these variables in another test (Figure 1).

Since the English ACT test score is supposed to be a measure of writing ability, and since we are obtaining strong relationships between this variable and editing test scores, there appears to be predictive validity to the editing test. However, further replications will be necessary.

We wished to compare the two groups on the basis
of editing test scores. Since there are only two groups, a t test will be comparable to an analysis of variance. If we take the pre- and post-instruction editing test scores of each student in both groups, we can determine if one method of instruction was significantly better than the other, or if the results obtained from one method of instruction are equal to, or surpass, the results obtained by the other method.

We can state the null and alternate hypotheses in this way:

\[ H_0: \mu_2 = \mu_1 \]

\[ H_1: \mu_2 \neq \mu_1 \]

Decision rule: compute \( t (a=.05, \text{ one-tailed test}) \); accept \( H_0 \) if \( t > 1.699 \); accept \( H_1 \) otherwise.

If we accept the alternate hypothesis, then a second hypothesis will be tested:

\[ H_0: \mu_2 > \mu_1 \]

\[ H_1: \mu_2 < \mu_1 \]
Patterns of Data

We stated in Chapter II that we hoped to obtain patterns of data which might lead to predictors of news writing success. Judges' ratings and editing test scores are the major instruments developed for this experiment; but we hoped to find other predictors, if possible, which could be more critically studied in future experiments. Eventually they may help to identify—prior to instruction—students who have entering behaviors in writing which appear related to success after a semester of instruction by one or more methods.

The three additional predictors which we wished to examine as potentially useful instruments are ACT English test scores, formal logic test scores, and restructuring test scores.

1. ACT English test scores. Reliability and validity of ACT test scores have been reported by the American College Testing program. 6

Median reliabilities of this test score in English ranges from .84 to .90. 7 The small differ-

7Ibid., p. 17.
ences in means is statistically significant \((p < .05)\).
The predictive validity of the ACT English score when used to predict college English grade point averages is median \(r = .498\), which indicates that the test has predictive validity.\(^8\)

We recorded ACT English test scores on each student and will seek to make a preliminary determination as to the predictive power of ACT English scores vis-a-vis news writing success. We also will report preliminary findings insofar as restructuring and logic scores appear to be correlated with news writing success. The primary post-instruction indicators of news writing success will be judges' ratings and editing test scores.

2. Formal logic test. Barbe measured the reliability of the formal logic test by means of the split-half technique and obtained a Spearman Rho of 0.85 \((p < .01)\).\(^9\) The validity of the instrument was not estimated statistically, although logical validity was claimed.

\(^8\)Ibid., p. 19.

\(^9\)Barbe, op. cit., pp. 81-82.
3. Restructuring test. We used the test-retest method to determine the reliability of this instrument and obtained a Pearson product-moment correlation coefficient ($r = .669$) which is significant beyond the .01 level. This statistic is based on the pre- and posttest scores of the sixteen students in both experimental groups who had no previous news writing instruction/experience.

We used only the scores of these sixteen students to compute reliability of the instrument because the pre-instruction scores of students with high school journalism instruction/training might have been a contaminating variable.

**Other Experimental Information**

Useful information can be obtained in various ways. Not all information needs to be of a statistical nature to be useful to the investigator.

Our major effort was to develop a method of instruction which would improve the news writing ability of beginning journalism students. We did not believe that all students would progress at the same rate nor that they would reach the same level of competence because of individual variations which are
evident in classroom situations. Therefore, we wished to probe for variables which appear to limit or to promote news writing success.

Boredom, for example, might be such a factor. We wanted to know at what point, if at all, boredom began to operate during programed instruction. Were certain kinds of learners seemingly more susceptible to boredom than others? This information, if it could be obtained, would be useful when decisions were being made on program revisions and the use of instructional materials.

We also wondered about other predictors of success or failure, such as the physical factor of eyesight.

We used a direct approach in probing for these kinds of variables; that is, we interviewed each of the sixteen students in the programed instruction group. These were privately-conducted interviews. Each student was assured that he would not be penalized for frank responses to questions. Excerpts from these interviews are recorded in the next chapter.
Chapter V

RESULTS OF THE EXPERIMENT

This chapter will discuss the results of the experiment conducted during the spring semester, 1967. Data and conclusions will be presented in the following order:

1. Judges' ratings of global news writing behavior before and after the experimental treatments (Bartlett's test of homogeneity, analysis of variance, and analysis of covariance).

2. Pre- and post-instruction editing test scores (analysis of variance).

3. Efficiency.

4. Minimum acceptable standard of global news writing behavior.

5. Other writing variables (ACT English, logic, and restructuring scores with rank-order correlations).


7. Interview data (with analysis).
We tested the hypothesis that the judges' ratings of a student's news story were approximately the same prior to the experimental treatments; i.e., that the judges, within stated limits, could agree on the quality of the news story which represented the global news writing behavior of the student.

We used Bartlett's test of homogeneity to determine if the variances of the four ratings of each student's news story were approximately equal. If the variances are approximately equal, then a critical assumption has been met before a test can be made to determine if the means of the ratings are approximately the same.

1. The first hypothesis was:

\[ H_0: \sigma_i^2 = \sigma_j^2 = \sigma_k^2 = \sigma_l^2 \]

\[ H_1: \sigma_i^2 \neq \sigma_j^2, \ i \neq j \]

Decision rule: compute \( F \) and accept \( H_0 \) (\( \alpha = .01 \), two-tailed test) if \(.000039 < F < 4.28\); otherwise accept \( H_1 \).

Table 8 shows the pre-instruction ratings assigned to each student's news story by the four judges (with students No. 1-16 randomly assigned to
Table 8

Pre-Instruction Ratings by Four Judges of Global News Writing of 31 Students

<table>
<thead>
<tr>
<th>Student</th>
<th>Judge's Rating</th>
<th>Judge's Rating</th>
<th>Judge's Rating</th>
<th>Judge's Rating</th>
<th>Total</th>
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<tbody>
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</tbody>
</table>

*No high school journalism instruction or training in news writing.
the programed instruction group and students No. 17-31 randomly assigned to the conventional classroom group).

Bartlett's test was used to determine homogeneity of variance. The computed $F$ was 4.18. Therefore, our decision was to accept the null hypothesis that the variances are equal at the stated level of confidence.

2. The next hypothesis was that the post-instruction ratings by the four judges of a student's news story were approximately equal:

$H_0: \sigma_1^2 = \sigma_2^2 = \sigma_3^2 = \sigma_4^2$

$H_1: \sigma_i^2 \neq \sigma_j^2, i \neq j$

Decision rule: compute $F$ and accept $H_0$ ($\alpha = 0.05$, two-tailed test) if $0.072 < F < 3.12$; otherwise accept $H_1$.

Table 9 shows the post-instruction ratings assigned by the four judges to each student (with students No. 1-16 randomly assigned to programed instruction and students No. 17-31 randomly assigned to the conventional classroom group).

---

1Dixon and Massey, op. cit., pp. 179-182.
Table 9
Post-Instruction Ratings by Four Judges
Of Global News Writing of 31 Students

<table>
<thead>
<tr>
<th>Student</th>
<th>Judge's Rating</th>
<th>Judge's Rating</th>
<th>Judge's Rating</th>
<th>Judge's Rating</th>
<th>Judge's Total</th>
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</tbody>
</table>

*No high school journalism instruction or training in news writing.
Bartlett's test was used to determine homogeneity of variance. The computed $F$ was 1.02. Our decision was to accept the null hypothesis that the variances of the ratings of each student's news story were approximately equal.

3. We were now able to test the assumption that the means of the ratings of each student's news story were approximately the same prior to the student's exposure to the experimental treatment:

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

$$H_1: \text{one or more } \mu_i \neq \mu_j \text{ for } i \neq j$$

Decision rule: Compute $F$ and accept $H_0$ ($\alpha=.01$, one-tailed test) if $F_{.99}(3, 120) < 3.95$; accept $H_1$ if $F > 3.95$.

The computed $F$ was 3.19. Our decision is to accept the null hypothesis that the means were approximately equal.

4. Since we tightened our decision rule when making Bartlett's test of homogeneity of variances (pre-instruction, $\alpha=.01$, and post-instruction, $\alpha=.05$), we followed the same procedure in making pre- and post-instruction tests that the means of the judges' ratings were approximately equal.
We stated the null and alternate hypotheses in this way:

\[ H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 \]

\[ H_1: \text{one or more } \mu_i \neq \mu_j \text{ for } i \neq j \]

Decision rule: compute \( F \) and accept \( H_0 \) (\( \alpha = .05 \), one-tailed test) if \( F_{.99} (3, 120) < 2.68 \); accept \( H_1 \) if \( F \geq 2.68 \).

The computed \( F \) was 5.37. We therefore were forced to accept the alternate hypothesis that the means of the ratings assigned by the four judges to each student's news story were not the same after the experimental treatments.

An examination of Tables 8 and 9 shows that ratings given by Judge No. 2 increased only slightly, although ratings given by Judges 1, 3 and 4 were considerably higher after the experimental treatments. This can be demonstrated by summing the ratings of each judge, and by squaring and summing each rating by a judge, both before and after the experimental treatments.
Pre-Instruction Ratings

Judge 1  Judge 2  Judge 3  Judge 4
X = 118  X = 108  X = 148  X = 107
X^2 = 562  X^2 = 444  X^2 = 916  X^2 = 425

Post-Instruction Ratings

X = 149  X = 116  X = 173  X = 162
X^2 = 833  X^2 = 524  X^2 = 1055  X^2 = 984

The sum of the ratings, and the sum of the square of each rating, show little change in Judge No. 2's appraisal of news writing behavior before and after experimental treatments, while Judges No. 1, 3 and 4 tended to agree on the quality of post-instruction news writing behavior.

It may be that the .05 level of significance was too stringent a test to impose on the judges' ratings, but this was a decision made at the statistical design stage. We cannot alter the decision now.

What the alternate hypothesis tells us is that the judges (especially one of them) are not judging post-instruction global news writing of the students in the same way; that is, they apparently are not applying the same subjective criteria. This, then, is a limitation when results are being discussed.

5. We next tested the hypothesis that the
ratings increased significantly as a result of the experimental treatments regardless of the treatment to which a student was exposed.

We pooled the thirty-one students, both before they were exposed to the treatments and afterwards, and used the t test to make a decision whether or not a significant increase had occurred in judges' ratings after students had been exposed to the experimental treatments. Since we were testing only two groups (pre-instruction and post-instruction), Student's t test is equivalent to an analysis of variance of the means.\(^2\)

If we designate the means of the ratings received by the thirty-one students after they had been exposed to the treatments as \(\mu_2\), then we can state the null and alternate hypotheses in this way:

\[
\begin{align*}
H_0: \mu_2 &= \mu_1 \\
H_1: \mu_2 &> \mu_1
\end{align*}
\]

Decision rule: compute t and accept \(H_0\) if \(t \leq 1.67\); accept \(H_1\) if \(t > 1.67\). With the significance level placed at .05, we made a one-tailed test that

there had been a significant increase in the judges' ratings and, because of our operational definition, a significant increase in the global writing ability of the students. The obtained $t$ was equal to 2.87, which permits us to accept the alternate hypothesis.

6. We next made an analysis of covariance (checking each subject within and against each group) to determine if one group did better than the other.

We stated the hypothesis that the means of the ratings given to the students in the programmed instruction group ($\mu_2$) were equal to the means of the ratings given to students in the conventional classroom group after the experimental treatments.

$$H_0: \mu_2 = \mu_1$$

$$H_1: \mu_2 \neq \mu_1$$

Decision rule: compute $F(1, 30)$. Accept $H_0 (\alpha = .05$, one-tailed test) if $F \leq 4.17$; accept $H_1$ otherwise.

The computed $F$ was .003. We accepted the null hypothesis that there is no significant difference between the two groups after the experimental treatments. There was no need to test that $\mu_2 > \mu_1$.

---

We can recheck the results obtained with the F test by using the t test, which is equivalent to an analysis of variance when only two groups are being compared. The null hypothesis is that the two groups are equal after the experimental treatments:

\[ H_0: \mu_2 = \mu_1 \]
\[ H_1: \mu_2 \neq \mu_1 \]

Decision rule: compute t. Accept \( H_0 \) (\( \alpha = .05 \), two-tailed test) if \(-2.045 < t < 2.045 \) or \( |t| > 2.045 \); otherwise accept \( H_1 \).

The computed t was -0.2. We again accepted the null hypothesis of no significant difference between the two groups in global news writing ability.

On the basis of the tests used above, and within the confidence intervals and limitations noted, we conclude:

1. That the global news writing ability of both groups increased significantly.

2. That the global news writing ability of both groups was equal after the experimental treatments.

In stating these conclusions, we point out that

\[ ^4\text{Brunk, op. cit., p. 259.} \]
the pre-instruction judges' ratings were slightly higher for the conventional classroom group (Chapter IV, p. 102).

Also, we find less variance in the ratings assigned by the judges to the programed instruction group's global news writing ability at the end of the experimental treatment when a comparison is made of the variance of ratings of writing ability in the conventional classroom group:

\[ \bar{X} \quad s \quad s^2 \]

Programed Instruction Group: 19.43 4.63 21.43
Conventional Classroom Group: 19.53 5.73 32.83

The variance of the ratings for the programed instruction group, when compared with the variance of the ratings for the conventional classroom group, indicates that programed instruction obtained more uniform results in global writing behavior. Two-thirds of the students in programed instruction are included in the range of ratings from 14.80-24.06, while two-thirds of the students in the conventional classroom are included in the range from 13.80-25.26.
The editing test scores were the second dependent variable by which comparisons were made between the programed and conventional classroom groups.

We took the pre- and post-instruction editing test scores of each student in both groups, computed the difference between the set of scores for each student, and then compared the differences between each group by using a t test. The t test is comparable to an analysis of variance.

Pre- and post-instruction editing test scores are shown in Table 10. Students 1-16 were randomly assigned to the programed instruction group and students 17-31 were randomly assigned to the conventional classroom group.

1. The first hypothesis tested was that the programed instruction group's mechanical news writing ability (as operationalized by editing test scores) was better than the conventional classroom group's mechanical news writing ability after the experimental treatments.

\[ H_0: \mu_2 \leq \mu_1 \]

\[ H_1: \mu_2 > \mu_1 \]
Table 10

Pre- and Post-Instruction Editing Test Scores

<table>
<thead>
<tr>
<th>Student</th>
<th>Pre-Instruction Score</th>
<th>Post-Instruction Score</th>
<th>Difference</th>
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<tr>
<td>31</td>
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</table>

*No high school journalism instruction or training in news writing.*
Decision rule: compute $t$ and accept $H_0$ ($\alpha = 0.05$, one-tailed test) if $t > 1.699$; otherwise accept $H_1$.

The computed $t$ was 1.531. We therefore accepted the alternate hypothesis.

2. We then had to test if the mechanical news writing ability of the programed instruction group was equal to, or less than, that of the conventional classroom group after the experimental treatments.

$H_0: \mu_2 = \mu_1$

$H_1: \mu_2 \neq \mu_1$

Decision rule: compute $t$ and accept $H_0$ ($\alpha = 0.05$, two-tailed test) if $-2.045 < t < 2.045$; otherwise accept $H_1$.

The computed $t$ remains the same (1.531). Our decision is that the programed instruction group is equal to the conventional classroom group in mechanical news writing ability.

The variance of the difference for each group again shows that more uniform results were obtained by the programed instruction method.
The means of the differences also show that better gains were scored by the programed instruction group.

\[
\begin{array}{cc}
X & s^2 \\
\hline
\text{Programed instruction group:} & 38.18 & 166.25 \\
\text{Conventional Classroom group:} & 34.60 & 311.44 \\
\end{array}
\]

On the basis of the above tests, we conclude:

1. The two groups are equal in mechanical news writing ability.

2. More uniform results are being obtained by the programed instruction method.

**Efficiency**

Based on absenteeism records, we are able to accurately determine the time that each student spent in either the programed or conventional instruction classrooms (Table 11).

Table 11 does not show what a student did with this time. It only shows the student's presence in the classroom.

The maximum time a student could spend in either classroom was 2,050 minutes (41 classroom periods each of 50-minute duration). Several students (No. 2, 10 and 18) reported late to class on at least one occasion
thus 50-minute time intervals are not recorded for these students.

Average time spent in the classroom by students in programmed instruction (Nos 1-16 in Table 11) was 1,825 minutes compared with 1,881 minutes for the average student in the conventional classroom group.

In addition to formal classroom time, students in the conventional classroom were required to gather facts and to write news stories on their own time. They also were assigned textbook reading and were tested on two occasions to determine if they had read assigned chapters. It is not possible to accurately estimate the amount of time required by each student to do the above tasks. It is possible, however, to conservatively estimate the amount of time it might take to gather facts in order to write a news story, to write that story, and to read the thirteen assigned chapters in the textbook.

Our estimates are: thirty minutes for a student to gather facts and to write a news story longer than two paragraphs, and 120 minutes to read the thirteen chapters.

By noting the number of news stories (longer than two paragraphs) that each student wrote, we can estimate
Table 11

<table>
<thead>
<tr>
<th>Student</th>
<th>Absences</th>
<th>Tardiness</th>
<th>Total Minutes in Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5 (-250)</td>
<td>0</td>
<td>1800</td>
</tr>
<tr>
<td>2*</td>
<td>4 (-200)</td>
<td>-20</td>
<td>1830</td>
</tr>
<tr>
<td>3</td>
<td>10 (-500)</td>
<td>0</td>
<td>1550</td>
</tr>
<tr>
<td>4</td>
<td>12 (-600)</td>
<td>0</td>
<td>1450</td>
</tr>
<tr>
<td>5</td>
<td>1 (-50)</td>
<td>0</td>
<td>2050</td>
</tr>
<tr>
<td>6*</td>
<td>4 (-200)</td>
<td>0</td>
<td>1850</td>
</tr>
<tr>
<td>7*</td>
<td>0</td>
<td>0</td>
<td>2050</td>
</tr>
<tr>
<td>8</td>
<td>4 (-200)</td>
<td>0</td>
<td>1850</td>
</tr>
<tr>
<td>9</td>
<td>4 (-200)</td>
<td>0</td>
<td>1850</td>
</tr>
<tr>
<td>10*</td>
<td>2 (-100)</td>
<td>-20</td>
<td>1930</td>
</tr>
<tr>
<td>11*</td>
<td>3 (-150)</td>
<td>0</td>
<td>1900</td>
</tr>
<tr>
<td>12*</td>
<td>2 (-100)</td>
<td>0</td>
<td>1950</td>
</tr>
<tr>
<td>13*</td>
<td>7 (-350)</td>
<td>0</td>
<td>1700</td>
</tr>
<tr>
<td>14*</td>
<td>3 (-150)</td>
<td>0</td>
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<td>1850</td>
</tr>
<tr>
<td>24*</td>
<td>2 (-100)</td>
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<td>1950</td>
</tr>
<tr>
<td>25*</td>
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<td>26*</td>
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<td>2050</td>
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<td>28*</td>
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<td>1950</td>
</tr>
<tr>
<td>30*</td>
<td>3 (-150)</td>
<td>0</td>
<td>1900</td>
</tr>
<tr>
<td>31</td>
<td>0</td>
<td>0</td>
<td>2050</td>
</tr>
</tbody>
</table>

*No high school journalism instruction or Training in news writing.
the total time required of each student in the conventional classroom group (Table 12).

Table 12

<table>
<thead>
<tr>
<th>Student</th>
<th>Minutes Spent In Classroom</th>
<th>Number Of Stories (x 30 Min.)</th>
<th>Textbook (120 Min.)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>2000</td>
<td>16 (480)</td>
<td>120</td>
<td>2600</td>
</tr>
<tr>
<td>18</td>
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<td>1825</td>
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<td>19</td>
<td>1750</td>
<td>10 (300)</td>
<td>120</td>
<td>2170</td>
</tr>
<tr>
<td>20</td>
<td>2050</td>
<td>6 (180)</td>
<td>120</td>
<td>2350</td>
</tr>
<tr>
<td>21</td>
<td>2000</td>
<td>7 (210)</td>
<td>120</td>
<td>2330</td>
</tr>
<tr>
<td>22</td>
<td>1850</td>
<td>5 (150)</td>
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<td>2120</td>
</tr>
<tr>
<td>23</td>
<td>1850</td>
<td>7 (210)</td>
<td>120</td>
<td>2180</td>
</tr>
<tr>
<td>24</td>
<td>1950</td>
<td>6 (180)</td>
<td>120</td>
<td>2250</td>
</tr>
<tr>
<td>25</td>
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<td>3 (150)</td>
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<td>1570</td>
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</tr>
<tr>
<td>27</td>
<td>2050</td>
<td>13 (390)</td>
<td>120</td>
<td>2560</td>
</tr>
<tr>
<td>28</td>
<td>1950</td>
<td>6 (180)</td>
<td>120</td>
<td>2250</td>
</tr>
<tr>
<td>29</td>
<td>1950</td>
<td>8 (240)</td>
<td>120</td>
<td>2310</td>
</tr>
<tr>
<td>30</td>
<td>1900</td>
<td>8 (240)</td>
<td>120</td>
<td>2260</td>
</tr>
<tr>
<td>31</td>
<td>2050</td>
<td>7 (210)</td>
<td>120</td>
<td>2380</td>
</tr>
</tbody>
</table>

Using data in Tables 11 and 12, we can estimate the average time required of a student in the conventional classroom. It is 2,237 minutes during the semester. The average time required of a student in the programed instruction group is 1,825 minutes. Therefore, it required 14 per cent less time for a student in the programed instruction group to equal
the news writing ability of a student in the conventional classroom group.

If time is accepted as a measure of efficiency, then we can say that learning was more efficient in the programmed instruction group (see Chapter I, pp. 14-15, and Chapter IV, pp. 104-105).

We believe that instruction was more efficient in that the instructor had more time to help individuals with their writing problems and more time when he was not actively involved in learning situations. However, no accurate records were kept of the time required of the instructor for different activities in the programmed instruction group.

Minimum Acceptable Standard

Although the two groups are equal in news writing ability, and programmed instruction appears to be a more efficient method of instruction insofar as learners are concerned, the question of acceptable standards remains.

In Chapter III (pp. 68-69), the terminal behavior objective of programmed instruction was stated: to write news stories of professional quality.

We made the objective concrete and testable by
arbitrarily deciding that successful attainment of the objective would be based on a pooled judges' rating of 18 per student. This generally would require ratings of average professional quality from at least two of the four judges.

In part, we based this minimum acceptable standard on the ratings achieved by fourteen news writers (Table 3, Chapter II, p. 41) who had received grades of C or higher upon completing Journalism 201. Thirteen of the fourteen students received ratings ranging from 18 to 25. One received a rating of 15.

The same panel of judges and the same post-instruction news writing test were used with the fourteen news writers and with the thirty-one students in the experimental groups. Seven of the fourteen students had received instruction from the same professor who observed and instructed in both experimental groups. Yet we find that only twenty-one of the thirty-one students in the experimental groups received ratings of 18 or higher.

Five of the students who failed to meet the minimum acceptable standard were in programmed instruction (No's 2, 3, 5, 11 and 16). Five students in the conventional classroom group (No's 19, 23, 28,
30 and 31) also failed to meet the minimum standard.

It should be pointed out that the fourteen students in Table 3 were randomly chosen from among thirty-four students who had passed the course. Six other students had failed and were not available when the fourteen were randomly selected.

**Other Writing Variables**

Although we based the results of the experiment primarily on two dependent variables, we also searched for variables which might be associated with news writing success or failure.

In Chapter II, we identified three potential predictors of news writing success: ACT English standard scores, restructuring scores, and logic test scores.

**Pre-Instruction Scores**

Table 13 shows the pre-instruction, or entry (E) behavior, scores of the thirty-one students who participated in the experiment, excluding the four professionally-experienced news writers. Maximum possible scores in Table 13 were: judging, 60 (which would represent a rating of "excellent" by all four judges); ACT English standard score, 36; editing test score, 200; restructuring, 102, and logic score, 100.
Table 13

Entry Behavior Test Scores of 31 Students
For 5 Writing Variables

<table>
<thead>
<tr>
<th>Student</th>
<th>Judges' Ratings</th>
<th>ACT English</th>
<th>Editing Restructuring</th>
<th>Logic</th>
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<tbody>
<tr>
<td>1</td>
<td>28</td>
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<td>68</td>
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<td>67</td>
</tr>
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<td>31</td>
<td>12</td>
<td>20</td>
<td>95</td>
<td>32</td>
</tr>
</tbody>
</table>

*No high school journalism instruction or training in news writing.
Students 1-16 were randomly assigned to program-
ed instruction, while students 17-31 were randomly
assigned to the conventional classroom group.

Spearman rank-order correlation coefficients
were computed for the five variables (Figure 10). Since
a number of tied ranks can be observed, a correction
formula was used.5

Since the number of students is large, a formula
suggested by Siegel was used to test the significance of
the obtained value.6

Using a table of critical values of t, and enter-
the table of values with 29 degrees of freedom, a value
of 2.779 will be significant at the .01 level (two-tailed
test), and a value of 2.045 will be significant at the
.05 level (two-tailed test).7 We are using two-tailed
tests because, at this stage in the experiments, we are
not sure of the direction of the associations between
variables. Prior to the preliminary studies outlined
in Chapter II, we anticipated positive associations
between the five variables.

5Siegel, op. cit., p. 207.
6Ibid., p. 212.
7Ibid., p. 248.
The null hypotheses are stated in this way: no variable in Table 13 is significantly associated with any other variable in Table 13. The alternate hypotheses are: variables in Table 13 are significantly associated with one another.

The decision rule for each of the five hypotheses is: compute \( t \) and accept \( H_0 \) \( (a=.05, \text{ two-tailed test}) \) if \( t<2.045 \); accept \( H_1 \) if \( t\geq 2.045 \).

Figure 10 shows the Spearman rho coefficient and, in parentheses, the value of \( t \).

Significant positive associations were obtained between the variables judging and restructuring, ACT and editing, ACT and restructuring, ACT and logic, and restructuring and editing.

We interpret the above correlations to mean:

1. Judges' ratings and restructuring. Restructuring was the only variable significantly associated with judges' ratings prior to experimental treatments. The strong relationship \( (a>.01) \) indicates that students who are able to make better discriminations between well- and poorly-organized writing obtain higher ratings from judges on the news stories submitted prior to experimental treatments. Therefore, restructuring scores appear to be an indicator of
Figure 10
Spearman Rank-Order Correlation Coefficients
(Scores on 5 Writing Variables, Table 13)

<table>
<thead>
<tr>
<th></th>
<th>Judges* Ratings</th>
<th>ACT</th>
<th>Editing</th>
<th>Restructuring</th>
<th>Logic</th>
</tr>
</thead>
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<td>Judges* Ratings</td>
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<td>.279</td>
<td>.272</td>
<td>.544</td>
<td>.294</td>
</tr>
<tr>
<td></td>
<td>(.1427)</td>
<td>(1.862)</td>
<td>(3.465)</td>
<td>(1.610)</td>
<td></td>
</tr>
<tr>
<td>ACT</td>
<td>.279</td>
<td>—</td>
<td>.766</td>
<td>.632</td>
<td>.438</td>
</tr>
<tr>
<td></td>
<td>(.1428)</td>
<td>(6.422)</td>
<td>(4.393)</td>
<td>(2.625)</td>
<td></td>
</tr>
<tr>
<td>Editing</td>
<td>.272</td>
<td>.766</td>
<td>—</td>
<td>.591</td>
<td>.125</td>
</tr>
<tr>
<td></td>
<td>(1.862)</td>
<td>(6.422)</td>
<td></td>
<td>(3.941)</td>
<td>(.681)</td>
</tr>
<tr>
<td>Restructuring</td>
<td>.544</td>
<td>.632</td>
<td>.591</td>
<td>—</td>
<td>.336</td>
</tr>
<tr>
<td></td>
<td>(3.465)</td>
<td>(4.393)</td>
<td>(3.941)</td>
<td></td>
<td>(1.920)</td>
</tr>
<tr>
<td>Logic</td>
<td>.294</td>
<td>.438</td>
<td>.125</td>
<td>.336</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(1.610)</td>
<td>(2.625)</td>
<td>(.681)</td>
<td>(1.920)</td>
<td></td>
</tr>
</tbody>
</table>
global news writing ability prior to instruction. Whether they continue as a predictor of news writing success depends on post-instruction results and future replications.

2. ACT, editing and logic scores. ACT scores are significantly associated with editing, logic and restructuring scores. None of these variables is significantly associated with judges' ratings except restructuring. They are, however, positively related to judges' ratings.

We were not surprised to find that ability in editing (as operationalized by test scores) is strongly associated with ACT English standard scores, since both tests include items on grammar, vocabulary, etc. And we would expect editing ability to influence judges' ratings—assuming that a student's editing ability is reflected in the pre-instruction news story that he was required to write. Misspelled words, incorrect use of words, poor grammar, etc., should act to lower the judges' ratings.

The absence of a significant correlation between judges' ratings and editing tends to support the distinction we made earlier between mechanical and global news writing behaviors. There is a relationship, but
global news writing behavior is more complex—involving at least the element that has been identified as structure. The strong association between restructuring and judges' ratings, and the slight positive association between judges' ratings and editing ability, may indicate that a variable (restructuring) has been isolated which will tell us more about global news writing behavior. Future replications, based on pre- and post-instruction performances, are necessary.

ACT and editing scores appear to be pre-instruction indicators of mechanical writing ability.

The significant pre-instruction relationship between ACT and logic scores is difficult to interpret. We are not sure what logic scores mean in terms of writing ability. Logic scores are not significantly associated with judges' ratings, although there is a positive relationship; and, at the pre-instruction stage, there is only a weak positive relationship between editing and logic scores.

Are logic scores an indicator of global and/or mechanical news writing ability?

Barbe (Chapter II, pp. 43-44) found a significant ($a=.05$) relationship between formal logic ability and ability to structure writing (as rated by a panel of
judges). He used ten students. We used thirty-one. The judges were not the same in the two experiments. Each of the student's in Barbe's experiment was asked to write one paragraph while we asked our beginning news writers to write a story of at least five paragraphs.

The near-significant relationship between restructuring and logic (Figure 10), linked to the strong relationship between restructuring and judges' ratings, may indicate that logic scores serve to tell us something about pre-instruction global news writing behavior. However, we believe that restructuring scores appear, at the moment, to be a more promising indicator of such news writing ability. As for mechanical news writing ability, ACT and editing test scores appear as more promising indicators than do logic scores. For these reasons, we did not use the formal logic test as a post-instruction instrument. We do, however, intend to use the formal logic test as a pre-instruction instrument during the first replication of this experiment.
Post-Instruction Scores

Table 1 shows the post-instruction (T) and pre-instruction (E) scores and ratings of the thirty-one students. Maximum possible scores and ratings are: 60, judges' ratings; 200, editing test, and 102, restructuring test. The pre- and posttests were the same with a three-month interval between tests.

Students 1-16 were randomly assigned to the programed instruction group, while students 17-31 were randomly assigned to the conventional classroom group.

Spearman rank-order correlation coefficients were computed (Figure 11) for the three variables (T) in Table 1. No posttests were given in ACT and logic. We believed that the editing test can serve as a substitute for the ACT test and intend to use it for this purpose in future posttest comparisons.

The formula for computing the Spearman rho remains the same and, since N is large, the t test was used to test the significance of the obtained coefficients.

Null hypotheses: no variable in Table 1 is significantly associated with any other variable.
Table 14
Terminal (T) and Entry (E) Behavior Test Scores
Of 31 Students for 3 Writing Variables

<table>
<thead>
<tr>
<th>Student</th>
<th>Judges*</th>
<th>Ratings (T) (E)</th>
<th>Editing (T) (E)</th>
<th>Restructuring (T) (E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21 28</td>
<td>140 100</td>
<td>83 68</td>
<td></td>
</tr>
<tr>
<td>2*</td>
<td>15 28</td>
<td>167 155</td>
<td>84 74</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>12 12</td>
<td>136 93</td>
<td>65 65</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>18 12</td>
<td>117 68</td>
<td>70 44</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>15 12</td>
<td>137 92</td>
<td>36 42</td>
<td></td>
</tr>
<tr>
<td>6*</td>
<td>21 25</td>
<td>138 85</td>
<td>76 67</td>
<td></td>
</tr>
<tr>
<td>7*</td>
<td>25 10</td>
<td>123 74</td>
<td>62 48</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>32 12</td>
<td>150 125</td>
<td>36 68</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>21 8</td>
<td>142 107</td>
<td>62 58</td>
<td></td>
</tr>
<tr>
<td>10*</td>
<td>21 10</td>
<td>112 69</td>
<td>44 37</td>
<td></td>
</tr>
<tr>
<td>11*</td>
<td>15 18</td>
<td>127 69</td>
<td>59 32</td>
<td></td>
</tr>
<tr>
<td>12*</td>
<td>19 10</td>
<td>140 114</td>
<td>58 66</td>
<td></td>
</tr>
<tr>
<td>13*</td>
<td>21 10</td>
<td>118 78</td>
<td>52 51</td>
<td></td>
</tr>
<tr>
<td>14*</td>
<td>18 10</td>
<td>127 95</td>
<td>60 48</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>22 13</td>
<td>130 83</td>
<td>67 44</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>15 12</td>
<td>115 101</td>
<td>46 36</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>21 15</td>
<td>125 96</td>
<td>51 39</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>21 22</td>
<td>129 72</td>
<td>66 72</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>15 15</td>
<td>134 120</td>
<td>72 70</td>
<td></td>
</tr>
<tr>
<td>20*</td>
<td>18 25</td>
<td>162 119</td>
<td>64 84</td>
<td></td>
</tr>
<tr>
<td>21*</td>
<td>25 16</td>
<td>152 106</td>
<td>80 78</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>21 18</td>
<td>121 117</td>
<td>58 78</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>15 15</td>
<td>102 65</td>
<td>48 33</td>
<td></td>
</tr>
<tr>
<td>24*</td>
<td>18 12</td>
<td>123 86</td>
<td>68 52</td>
<td></td>
</tr>
<tr>
<td>25*</td>
<td>21 15</td>
<td>116 109</td>
<td>63 70</td>
<td></td>
</tr>
<tr>
<td>26*</td>
<td>21 10</td>
<td>104 53</td>
<td>48 44</td>
<td></td>
</tr>
<tr>
<td>27*</td>
<td>36 21</td>
<td>146 122</td>
<td>88 72</td>
<td></td>
</tr>
<tr>
<td>28*</td>
<td>12 13</td>
<td>122 94</td>
<td>72 57</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>18 24</td>
<td>151 93</td>
<td>76 66</td>
<td></td>
</tr>
<tr>
<td>30*</td>
<td>15 18</td>
<td>140 79</td>
<td>68 72</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>12 12</td>
<td>118 95</td>
<td>50 32</td>
<td></td>
</tr>
</tbody>
</table>

*No high school journalism instruction or training in news writing.
Figure 11

Spearman Rank-Order Correlation Coefficients
(Scores on 3 Writing Variables, Table I I4)

<table>
<thead>
<tr>
<th></th>
<th>Judges' Ratings</th>
<th>Editing</th>
<th>Restructuring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judges' Ratings</td>
<td>—</td>
<td>.171</td>
<td>.065</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.934)</td>
<td>(0.351)</td>
</tr>
<tr>
<td>Editing</td>
<td>.171</td>
<td>—</td>
<td>.527</td>
</tr>
<tr>
<td></td>
<td>(0.934)</td>
<td></td>
<td>(3.339)</td>
</tr>
<tr>
<td>Restructuring</td>
<td>.065</td>
<td>.527</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(0.351)</td>
<td></td>
<td>(3.339)</td>
</tr>
</tbody>
</table>

Alternate hypotheses: variables in Table I I4 are significantly associated with one another.

Decision rule: compute t and accept $H_0 (a = .05$, two-tailed test) if $t < 2.045$; accept $H_1$ if $t > 2.045$.

Figure 11 shows the obtained coefficients and, in parentheses, the value of t.

A significant ($a > .01$) was obtained between the variables editing and restructuring; however, there was an almost zero correlation between judges' ratings and restructuring, with a positive, but not significant, relationship between editing and judges' ratings.
In Figure 2 (Chapter II, p. 42), we obtained a .09 correlation between judges' ratings and editing test scores at the end of the semester of news writing instruction. This adds support to the .171 correlation obtained at the conclusion of the present experiment.

Our interpretations of the data in Figure 11 are:

1. Judges' ratings and editing. The slight positive correlations indicate that judges are taking into account some element or elements of writing which go beyond mechanical news writing ability. Also, as students are given training in how to edit their news stories, we would expect that there would be a weaker positive association between judges' ratings and editing scores from the pre- to post-instruction stages; that is, as mechanical writing ability becomes more uniform, judges will be more influenced by other writing elements.

2. Judges' ratings and restructuring. These two variables were significantly (α=.01) related prior to instruction. At the conclusion of the experimental treatments a .06 relationship exists. We are not sure what this means since we had anticipated a stronger association between these two variables at the post-instruction stage.
We first will theorize about the strong pre-instruction relationship between these two variables. Then we will examine the post-instruction relationship.

**Pre-Instruction Relationships Between Variables**

Students with the highest restructuring scores generally received higher ratings from the judges and tended to have higher ACT and editing test scores. We can identify these students (see Table 15) from data in Tables 13 and 14.

There is an obvious difference between students with the higher pre-instruction scores; that is, students 1, 3, 8, 18, 19, 22 and 29 had received some kind of high school journalism instruction and/or news writing training. One assumption is that they may have learned more from the instruction and/or training they received compared with others in Tables 13 and 14 who also had received such training and/or instruction. If so, then we would expect these students to have pre-instruction advantages in both mechanical and global news writing behavior.

What, then, accounts for the pre-instruction advantage of students 2, 6, 12, 20, 21, 25, 27 and 30? From our previous observations, we had suspected
Table 15
15 Students with Highest Pre-Instruction Scores in Restructuring

<table>
<thead>
<tr>
<th>Student</th>
<th>Judges* Ratings</th>
<th>ACT English Editing</th>
<th>Restructuring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>28</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>2*</td>
<td>28</td>
<td>28</td>
<td>155</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>7</td>
<td>93</td>
</tr>
<tr>
<td>6*</td>
<td>25</td>
<td>20</td>
<td>85</td>
</tr>
<tr>
<td>8</td>
<td>12</td>
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<td>125</td>
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<tr>
<td>12*</td>
<td>10</td>
<td>25</td>
<td>114</td>
</tr>
<tr>
<td>18</td>
<td>22</td>
<td>16</td>
<td>72</td>
</tr>
<tr>
<td>19</td>
<td>15</td>
<td>22</td>
<td>120</td>
</tr>
<tr>
<td>20*</td>
<td>25</td>
<td>26</td>
<td>119</td>
</tr>
<tr>
<td>21*</td>
<td>16</td>
<td>27</td>
<td>106</td>
</tr>
<tr>
<td>22</td>
<td>18</td>
<td>23</td>
<td>117</td>
</tr>
<tr>
<td>25*</td>
<td>15</td>
<td>20</td>
<td>109</td>
</tr>
<tr>
<td>27*</td>
<td>21</td>
<td>28</td>
<td>122</td>
</tr>
<tr>
<td>29</td>
<td>24</td>
<td>23</td>
<td>93</td>
</tr>
<tr>
<td>30*</td>
<td>18</td>
<td>21</td>
<td>79</td>
</tr>
</tbody>
</table>

*No high school journalism training or instruction in news writing.

A relationship between reading habits, eyesight, and ACT English scores. To obtain data on this possible relationship, we asked students, before experimental treatments began, to indicate their reading habits: those who read a great deal (books, magazines, and newspapers); those who did very little non-assigned reading, and those who thought they fell somewhere between the above descriptions. We also asked students to indicate if they were near-sighted, far-sighted, or had normal vision.
Conclusions concerning the relation of visual status to reading success and failure have been conflicting. Most agree that good readers tend to be near-sighted and that poor readers are more likely to be farsighted. Furthermore, lack of co-ordination of the two eyes as measured by tests of phoria, ductions, and binocular reading often characterize the poor reader. Those who find no relationships between the groups having visual and reading difficulties suggest that individual learners may be handicapped by vision problems.

Using students' self-descriptions of reading habits (H for those who read a great deal; L for those who do very little non-assigned reading, and M for those characterizing their reading habits between the above descriptions), we are able to indicate these characteristics of students in the pre-instruction high-scoring category (see Table 16).

---

Table 16

Self-Descriptions of Reading Habits, Eyesight by Students With Highest Pre-Instruction Scores in Restructuring, Plus ACT English Scores

<table>
<thead>
<tr>
<th>Student</th>
<th>Self-Descriptions of Reading Habits</th>
<th>Self-Descriptions of Eyesight</th>
<th>ACT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No H.S. Journalism Instruction or Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>H</td>
<td>N.S.</td>
<td>28</td>
</tr>
<tr>
<td>6</td>
<td>H</td>
<td>N</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>H</td>
<td>N.S.</td>
<td>25</td>
</tr>
<tr>
<td>20</td>
<td>H</td>
<td>N.S.</td>
<td>26</td>
</tr>
<tr>
<td>21</td>
<td>H</td>
<td>N</td>
<td>27</td>
</tr>
<tr>
<td>25</td>
<td>L</td>
<td>N.S.</td>
<td>20</td>
</tr>
<tr>
<td>27</td>
<td>H</td>
<td>N.S.</td>
<td>28</td>
</tr>
<tr>
<td>30</td>
<td>M</td>
<td>N</td>
<td>21</td>
</tr>
<tr>
<td>H.S. Journalism Instruction or Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>H</td>
<td>N</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>M</td>
<td>N</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>M</td>
<td>N</td>
<td>29</td>
</tr>
<tr>
<td>18</td>
<td>H</td>
<td>N</td>
<td>16</td>
</tr>
<tr>
<td>19</td>
<td>M</td>
<td>N.S.</td>
<td>22</td>
</tr>
<tr>
<td>22</td>
<td>H</td>
<td>N</td>
<td>23</td>
</tr>
<tr>
<td>29</td>
<td>H</td>
<td>N.S.</td>
<td>23</td>
</tr>
</tbody>
</table>

All but two of the self-described "heavy" readers are included in the high scorers at the pre-instruction stage. All but four of the self-described near-sighted students are included in Table 16.

We now want to identify those students who had the lowest pre-instruction judges' ratings, and re-structuring and editing test scores, and note the self-descriptions that they provided (Table 17).
Table 17

Self-Descriptions of Reading Habits, Eyesight by Students With Lowest Pre-Instruction Scores in Restructuring, Plus ACT English Scores

<table>
<thead>
<tr>
<th>Student of Reading Habits</th>
<th>Self-Descriptions of Eyesight</th>
<th>ACT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No H.S. Journalism Instruction or Training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>10</td>
<td>M</td>
<td>N</td>
</tr>
<tr>
<td>26</td>
<td>M</td>
<td>N.S.</td>
</tr>
<tr>
<td><strong>H.S. Journalism Instruction or Training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>L</td>
<td>N</td>
</tr>
<tr>
<td>23</td>
<td>M</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

The remaining students had pre-instruction scores in the middle range (Table 18).
Table 18

Self-Descriptions of Reading Habits, Eyesight by Students In the Middle Range of Pre-Instruction Scores In Restructuring, Plus ACT English Scores

<table>
<thead>
<tr>
<th>Student</th>
<th>Self-Descriptions of Reading Habits</th>
<th>Self-Descriptions of Eyesight</th>
<th>ACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>M</td>
<td>F</td>
<td>13</td>
</tr>
<tr>
<td>13</td>
<td>H</td>
<td>N.S.</td>
<td>22</td>
</tr>
<tr>
<td>14</td>
<td>M</td>
<td>N.S.</td>
<td>19</td>
</tr>
<tr>
<td>24</td>
<td>M</td>
<td>N</td>
<td>21</td>
</tr>
<tr>
<td>28</td>
<td>M</td>
<td>N</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student</th>
<th>Self-Descriptions of Reading Habits</th>
<th>Self-Descriptions of Eyesight</th>
<th>ACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>H</td>
<td>N</td>
<td>21</td>
</tr>
<tr>
<td>9</td>
<td>M</td>
<td>N</td>
<td>21</td>
</tr>
<tr>
<td>15</td>
<td>M</td>
<td>N</td>
<td>19</td>
</tr>
<tr>
<td>16</td>
<td>L</td>
<td>N</td>
<td>19</td>
</tr>
<tr>
<td>17</td>
<td>M</td>
<td>N</td>
<td>20</td>
</tr>
<tr>
<td>31</td>
<td>M</td>
<td>N.S.</td>
<td>20</td>
</tr>
</tbody>
</table>

We believe that what shows up most clearly in Tables 16 and 18 can be summarized as follows:

1. Students without previous instruction or training in news writing, who did well on the pre-instruction tests and ratings, generally rated themselves as heavy, near-sighted readers. These same students generally had higher English ACT scores.

2. Among those students without high school training or instruction in news writing, a strong relationship seems to exist between high performance
on pre-instruction tests and ACT English scores, self-described reading habits, and eyesight.

3. This same relationship is observable in the entering behavior scores of the four professional news writers (Table 5, Chapter II, p. 64). Professional writer No. 2, who received the lowest judges' ratings (15) and had the lowest scores on editing (110), restructuring (64), and logic (38), but who had the most professional news writing experience, indicated that he fell into the medium readership range and had normal vision. The three other professional writers indicated that they were "heavy" readers and were near-sighted.

4. We believe that high school journalism instruction or training may have been a factor accounting for the relatively high entering performances of students No. 3 and 18 (Table 16).

In suggesting the above reasons for the differences in entering writing behavior—especially for the pre-instruction high achievers who had not received any kind of instruction or training in news writing—we recognize the inadequacy of the readership descriptions elicited by the questionnaire and by subsequent interviews. This shortcoming can be remedied by future
studies which more intensively examine reading habits and eyesight.

**Post-Instruction Relationships Between Variables**

Three groups of students seem to emerge following a semester of instruction: 1. those who were achievers (made good gains in global news writing behavior); 2. those who regressed in global news writing behavior, and 3. those who showed little or no gain.

We will first look more closely at the students who appeared to regress.

1. Students 1, 2, 6, 11, 20, 29 and 30 appeared to regress most in global news writing ability (based on pre- and post-instruction judges' ratings). With the exception of No. 11, these were the students who generally had the high entering scores in restructuring and editing.

By interview or by questionnaire, we sought to determine if these students had experienced boredom during the semester of instruction. A plus sign (+) in Table 19 indicates a report of no boredom, while a minus sign (−) indicates a report of boredom (see excerpts from interviews at the end of this chapter).

Other data recorded in Table 19 includes ACT
English scores, judges' ratings, restructuring scores, editing scores, reading habits, eyesight, and number of absences from classroom sessions. Pre-instruction (E) and post-instruction (T) scores and ratings are shown for three variables.

Table 19

<table>
<thead>
<tr>
<th>Student</th>
<th>ACT</th>
<th>Judges Ratings</th>
<th>Restructuring</th>
<th>Editing</th>
<th>Reading Habits</th>
<th>Eyesight</th>
<th>Boredom Absenteeism</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E</td>
<td>T</td>
<td>E</td>
<td>T</td>
<td>E</td>
<td>T</td>
<td>H</td>
</tr>
<tr>
<td>1</td>
<td>20</td>
<td>28</td>
<td>21</td>
<td>68</td>
<td>83</td>
<td>100</td>
<td>140</td>
</tr>
<tr>
<td>2*</td>
<td>28</td>
<td>28</td>
<td>15</td>
<td>74</td>
<td>84</td>
<td>155</td>
<td>167</td>
</tr>
<tr>
<td>6*</td>
<td>20</td>
<td>25</td>
<td>21</td>
<td>67</td>
<td>76</td>
<td>85</td>
<td>138</td>
</tr>
<tr>
<td>11*</td>
<td>13</td>
<td>18</td>
<td>15</td>
<td>32</td>
<td>59</td>
<td>69</td>
<td>127</td>
</tr>
<tr>
<td>20*</td>
<td>26</td>
<td>25</td>
<td>18</td>
<td>84</td>
<td>64</td>
<td>119</td>
<td>162</td>
</tr>
<tr>
<td>29</td>
<td>23</td>
<td>24</td>
<td>18</td>
<td>66</td>
<td>76</td>
<td>93</td>
<td>151</td>
</tr>
<tr>
<td>30*</td>
<td>21</td>
<td>18</td>
<td>15</td>
<td>70</td>
<td>68</td>
<td>79</td>
<td>140</td>
</tr>
</tbody>
</table>

*No high school instruction or training in news writing.

Judging by the absence of reports of boredom (Table 19), this was not a factor in regression. Student No. 11, who reported that programmed instruction did not bore him, does not appear to belong with this group on the basis of his pre-instruction scores. With the exception of judges' ratings, he would not have been placed
with the group of achievers-regressors. Like students No. 2 and 30, he is among the ten students who failed to meet the minimum acceptable standard in global news writing ability.

What stands out in Table 19, we believe, is that five of the achievers-regressors described their reading habits as "heavy," and that three of the five had no previous news writing training or instruction. This suggests that better pre-instruction performances might have resulted because of the side effects of reading habits.

It is possible that student No. 30 might be among the "heavy" readers if we had been able to better define reading habits.

The entering advantage of students 1 and 29 may stem from previous news writing instruction and/or training.

It should be noted that achievement-regression is not confined to the programed instruction group.

Why some of the students regressed, or appeared to regress, in global news writing ability is not clear. It may be that their entering advantage, attributable perhaps to reading habits, disappeared relative to gains made by other students.
2. A second discernible group consists of those students who showed the largest gains in global news writing ability. By extracting data from previous tables, these achievers can be identified (Table 20).

Table 20
16 Achievers in Global Writing Behavior

<table>
<thead>
<tr>
<th>Student</th>
<th>ACT</th>
<th>Judges* Ratings</th>
<th>Reading Habits</th>
<th>Eyesight</th>
<th>Boredom</th>
<th>Absenteeism</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>E T</td>
<td>E T</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>12 18</td>
<td>44 70</td>
<td>68 117</td>
<td>L N</td>
<td>+ 12</td>
</tr>
<tr>
<td>7#</td>
<td>14</td>
<td>10 25</td>
<td>48 62</td>
<td>75 123</td>
<td>M F</td>
<td>+ 0</td>
</tr>
<tr>
<td>8</td>
<td>29</td>
<td>12 32</td>
<td>68 32</td>
<td>125 150</td>
<td>M N</td>
<td>+ 4</td>
</tr>
<tr>
<td>9</td>
<td>21</td>
<td>8 21</td>
<td>58 62</td>
<td>107 142</td>
<td>M N</td>
<td>+ 4</td>
</tr>
<tr>
<td>10#</td>
<td>17</td>
<td>10 21</td>
<td>37 44</td>
<td>69 112</td>
<td>M N</td>
<td>+ 2</td>
</tr>
<tr>
<td>12#</td>
<td>25</td>
<td>10 19</td>
<td>66 58</td>
<td>114 140</td>
<td>H N.S.</td>
<td>+ 2</td>
</tr>
<tr>
<td>13#</td>
<td>22</td>
<td>10 21</td>
<td>51 52</td>
<td>78 118</td>
<td>H N.S.</td>
<td>+ 7</td>
</tr>
<tr>
<td>14#</td>
<td>19</td>
<td>10 18</td>
<td>48 60</td>
<td>95 127</td>
<td>M N.S.</td>
<td>+ 3</td>
</tr>
<tr>
<td>15</td>
<td>19</td>
<td>13 22</td>
<td>44 67</td>
<td>83 130</td>
<td>M N</td>
<td>+ 4</td>
</tr>
<tr>
<td>17</td>
<td>20</td>
<td>15 21</td>
<td>39 51</td>
<td>96 125</td>
<td>M N</td>
<td>+ 1</td>
</tr>
<tr>
<td>21*</td>
<td>27</td>
<td>16 25</td>
<td>78 80</td>
<td>106 152</td>
<td>H N</td>
<td>+ 1</td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>18 21</td>
<td>78 58</td>
<td>117 121</td>
<td>H N</td>
<td>+ 4</td>
</tr>
<tr>
<td>24*</td>
<td>21</td>
<td>12 18</td>
<td>52 68</td>
<td>86 123</td>
<td>M N</td>
<td>+ 2</td>
</tr>
<tr>
<td>25*</td>
<td>20</td>
<td>15 21</td>
<td>70 63</td>
<td>109 116</td>
<td>L N.S.</td>
<td>+ 15</td>
</tr>
<tr>
<td>26*</td>
<td>19</td>
<td>10 21</td>
<td>44 48</td>
<td>53 104</td>
<td>M N.S.</td>
<td>+ 0</td>
</tr>
<tr>
<td>27*</td>
<td>28</td>
<td>21 36</td>
<td>72 88</td>
<td>122 146</td>
<td>H N.S.</td>
<td>+ 0</td>
</tr>
</tbody>
</table>

*No high school instruction or training in news writing.
Several things characterize this group of achievers:

a. Ten of the sixteen students had no previous high school instruction or training in news writing. Of these, five were in programed instruction and five were in the conventional classroom.

b. Four students with high school training and/or instruction in news writing made good gains in the group receiving programed instruction. Two students in the conventional classroom group, who had previous news writing training/instruction, made gains. If we look at the slight gain registered by student No. 22, then the implication is stronger that those with previous high school training/instruction in news writing did better if they were in the programed instruction group. Student No. 22 was included among the achievers because there was a slight increase in the ratings of his global news writing ability and because the pooled ratings were at the minimum acceptable standard.

c. Boredom apparently was not a factor that limited the size of the gains except possibly for students No. 4 and 12. In these two cases boredom may have been a factor, although we note good gains across the board for No. 4 in spite of twelve absences. Student No. 12 also showed good gains in editing ability.
Earlier (Table 15), we identified fifteen students who generally had the highest restructuring scores and judges' ratings prior to the experimental treatments. Six of these students regressed in global news writing behavior (Table 19). Of the remaining nine pre-instruction achievers, six of them are among the post-instruction achievers (students No. 8, 12, 21, 22, 25 and 27); and five of these six regressed in post-instruction restructuring ability. However, the ten other post-instruction achievers— who had relatively low pre-instruction restructuring scores— showed gains in their ability to make restructuring discriminations.

What this suggests for future studies is that post-instruction restructuring scores may be a benchmark of progress in writing only for those students who had relatively low entering restructuring scores. We are theorizing that their ability to discriminate between well- and poorly-organized writing has now been advanced to the point that this ability is being reflected in their global writing behavior.

It also seems unusual that not one of the ten post-instruction achievers, who showed gains in restructuring ability, described their reading habits as "heavy." Yet five of the six who regressed in writing
behavior classified themselves as "heavy" readers.

What this suggests for future studies is the possibility that pre-instruction restructuring scores are serving as an indicator of reading habits—perhaps a better indicator than reports by students of their reading habits.

Prof. S. N. Postlethwait of Purdue University, who developed an audio-tutorial system for teaching biology, wrote:

While some of my colleagues think that intellectual achievement is accomplished only through reading, it is my opinion that many poor readers are as intelligent as good readers if they are permitted exposure to subject matter through a communication vehicle more suited to their receptiveness. A good system should provide an opportunity for subject matter to be covered in a great variety of ways with the student exploiting that medium which communicates most directly and effectively for him.\

What may be happening is this:

1. The poor reader, as indicated by relatively low pre-instruction restructuring scores, may gain in his ability to make discriminations between well- and poorly-organized writing because a teaching method

---

is more suited to his receptiveness. This sharpening of discriminatory powers may be reflected in the student's global news writing behavior.

2. Prior instruction and/or training in news writing may be a confounding variable in studies of reading habits and the ability to make discriminations between well- and poorly-organized writing.

3. Receptivity to communication vehicles used in instruction, and previous instruction/training in news writing, may be factors which are operating in a third discernible group—those students who showed little or no gain in global news writing ability after a semester of instruction. Pre-instruction (E) and post-instruction (T) scores and ratings of these eight students are shown in Table 21.
Table 21

8 Students Who Showed Little or No Gain in Global Writing Behavior

<table>
<thead>
<tr>
<th>Student</th>
<th>ACT</th>
<th>Judges' Ratings</th>
<th>Restructuring</th>
<th>Editing</th>
<th>Reading Habits</th>
<th>Eyesight</th>
<th>Boredom</th>
<th>Absenteeism</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E</td>
<td>T</td>
<td>E</td>
<td>T</td>
<td>M</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>12</td>
<td>12</td>
<td>65</td>
<td>65</td>
<td>93</td>
<td>136</td>
<td>M</td>
</tr>
<tr>
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<td>21</td>
<td>12</td>
<td>15</td>
<td>42</td>
<td>36</td>
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<td>137</td>
<td>H</td>
</tr>
<tr>
<td>16</td>
<td>19</td>
<td>12</td>
<td>15</td>
<td>36</td>
<td>46</td>
<td>101</td>
<td>115</td>
<td>L</td>
</tr>
<tr>
<td>18</td>
<td>16</td>
<td>22</td>
<td>21</td>
<td>72</td>
<td>66</td>
<td>72</td>
<td>129</td>
<td>H</td>
</tr>
<tr>
<td>19</td>
<td>22</td>
<td>15</td>
<td>15</td>
<td>70</td>
<td>72</td>
<td>120</td>
<td>134</td>
<td>M</td>
</tr>
<tr>
<td>23</td>
<td>7</td>
<td>15</td>
<td>15</td>
<td>33</td>
<td>48</td>
<td>65</td>
<td>102</td>
<td>M</td>
</tr>
<tr>
<td>28*</td>
<td>20</td>
<td>13</td>
<td>12</td>
<td>57</td>
<td>72</td>
<td>94</td>
<td>122</td>
<td>M</td>
</tr>
<tr>
<td>31</td>
<td>20</td>
<td>12</td>
<td>12</td>
<td>32</td>
<td>50</td>
<td>95</td>
<td>118</td>
<td>M</td>
</tr>
</tbody>
</table>

*No high school instruction or training in news writing.

Two things characterize the group of students who showed little or no gain in global news writing behavior:

1. All but one student had high school training and/or instruction in news writing.

2. The three students in programmed instruction reported boredom.

Students 3, 18 and 19 were among the fifteen students (Table 15) who were listed among the pre-instruction achievers. From data in Table 21, we can
see that not much seems to have happened to the writing behavior of these three students, although they did show progress in mechanical writing ability. Two of these students had a high absenteeism rate (10 each), while the third student (No. 19) suffered a broken leg midway through the semester, which accounts for the six absences.

We believe that boredom may also be a factor in the failure of student No. 18 to show progress in global news writing behavior. We base this statement on the number of times the student was absent from class, although he reported at the end of the semester that he had experienced no boredom.

We also believe that students 5, 16, 23 and 31—who had relatively low restructuring scores at both the pre- and post-instruction stages—may not yet have reached a level of discriminatory ability such that their global news writing behavior is being influenced. At the same time, three of these students reported experiencing boredom; hence they may not have been receptive to the communication vehicles being used in their groups.

If we look again at the three groups, we note that only two of the seven students in the conventional classroom group who had previous news writing instruction or
training showed gains in global news writing ability. Yet five of the eight students in the conventional classroom group who had no previous instruction/training in news writing showed good gains. And one of the two students (No. 22 in Table 20) is a marginal achiever.

Conversely, four of the eight students in programmed instruction who had previous instruction/training showed good gains.

This may mean that the trial-and-error method (which generally characterizes conventional classroom instruction in journalism education) is least effective for those students who have had previous instruction and/or training.

Further, three of the four students in programmed instruction who had previous instruction/training in news writing and who showed little if any gain in global news writing ability reported that they had experienced boredom. If, in our next experiment, the boredom factor can be reduced or eliminated from programmed instruction, a more favorable difference might be obtained, or an even greater distinction might be evident, between the two groups among students with previous instruction and/or training in news writing.
Our failure to eliminate or reduce boredom in programed instruction (five of the sixteen students reported experiencing boredom) can be corrected, we believe, by innovations. These will be discussed in Chapter VI. One innovation will be the inclusion of real news situations in programed instruction. Our failure to include such concrete experiences in the program is the basic mistake referred to in Chapter III (p. 87).

Predictors of News Writing Success
Prior to Instruction

Since we had found no post-instruction variable which was significantly associated with success in global news writing ability, we examined pre-instruction variables which might be significantly associated with global news writing ability.

Entry (E) behavior scores of the thirty-one students in both groups were compared with post-instruction judges' ratings (T). Spearman rank-order correlation coefficients, with t values shown in parentheses, are given in Table 22.
Table 22

<table>
<thead>
<tr>
<th>Judges' Ratings (T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>judges' ratings (T)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Entry (E) Scores and Judges' Ratings (T), With t Values, for 31 Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT English (E)</td>
</tr>
<tr>
<td>Editing (E)</td>
</tr>
<tr>
<td>Logic (E)</td>
</tr>
<tr>
<td>Restructuring (E)</td>
</tr>
</tbody>
</table>

A t value of 2.045 would be significant at the .05 level of confidence with a two-tailed test. No t value in Table 22 is at the .05 level of significance. We note, however, that three variables in Table 22 were strongly, though not significantly, associated with global news writing behavior after the experimental treatments.

We next sought to determine differences in association between variables attributable perhaps to the method of instruction. Table 23 shows Spear-
man rank-order correlation coefficients between pre- and post-instruction variables and post-instruction judges' ratings for the sixteen students in programed instruction.

Table 23

<table>
<thead>
<tr>
<th></th>
<th>Judges' Ratings (T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT English (E)</td>
<td>0.364</td>
</tr>
<tr>
<td>Logic (E)</td>
<td>0.235</td>
</tr>
<tr>
<td>Editing (E)</td>
<td>-0.043</td>
</tr>
<tr>
<td>Editing (T)</td>
<td>0.093</td>
</tr>
<tr>
<td>Restructuring (E)</td>
<td>0.262</td>
</tr>
<tr>
<td>Restructuring (T)</td>
<td>-0.024</td>
</tr>
</tbody>
</table>
There are no significant associations (.05 level) between judges' ratings and the other variables in Table 23. Strongest positive associations are between judges' ratings and ACT English, restructuring (E), and logic (E).

Similar computations were made between the above variables to determine what associations, if any, existed in the conventional classroom group (Table 24).

Table 24

<table>
<thead>
<tr>
<th></th>
<th>Judges' Ratings (T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT English (E)</td>
<td>.294</td>
</tr>
<tr>
<td>Logic (E)</td>
<td>.347</td>
</tr>
<tr>
<td>Editing (E)</td>
<td>.278</td>
</tr>
<tr>
<td>Editing (T)</td>
<td>.240</td>
</tr>
<tr>
<td>Restructuring (E)</td>
<td>.453</td>
</tr>
<tr>
<td>Restructuring (T)</td>
<td>.197</td>
</tr>
</tbody>
</table>
Since we are seeking to predict the direction of associations, we can make one-tailed tests of significance (.05 level). The coefficient .453 (Table 24) has a t value of 1.83. Entering the table of t values with 13 degrees of freedom, we find that a t value of 1.83 is significant beyond the .05 level. The t value at the .05 level is 1.771.

Restructuring (E) is the only variable significantly associated with judges' ratings in Table 24.

Restructuring (E) and ACT English scores appeared to be the two variables which were operating in both groups of students as predictors of global news writing success. By combining the scores of these two variables, and computing a rank-order correlation coefficient between this pooled score and judges' ratings (T), we obtained a coefficient of .296 (N=31). This coefficient has a t value of 1.624. Entering the table of t values with twenty-nine degrees of freedom, and making a one-tailed test of significance (.05 level), we find that the obtained t value falls between the .10 and .05 level of confidence.

Although we cannot accept the hypothesis of a significant relationship between the pooled variables of restructuring (E) and ACT English with Judges' ratings
at the .05 level, the relationship is the strongest positive one obtained from among a variety of combinations of pooled variables and judges' ratings (T). Therefore, we have no predictor of global news writing success for both groups.

At this time restructuring ability at the pre-instruction stage appears to be a predictor of global news writing success for students in the conventional classroom. There is no predictor of success for students in the programed instruction group.

Subject to replication, we are inclined to believe that the method of instruction may account for the lack of significant correlations between variables in the programed instruction group. For example, eleven of the sixteen students in programed instruction showed gains in global news writing ability, while seven of fifteen showed gains in global news writing ability in the conventional classroom group. Students with previous news writing instruction and/or training appeared to make better gains in global news writing ability if they were in programed instruction despite the fact that the programed instruction group generally had lower entering behavior scores and ratings than did students in the conventional classroom group.
We can illustrate, to some extent, the scrambling effect that programed instruction appears to have when the 31 students are ranked on the basis of the pooled pre-instruction scores on restructuring and ACT English, and on post-instruction judges' ratings. The correlation between these variables was .296, which is significant beyond the .10 level but not at the .05 level.

In Table 25, students have been ranked on the basis of the above variables. We can detect those students who had unusually large variations between their ranks on the pooled variables and their ranks in global news writing ability (judges' ratings). For identification purposes, asterisks are used whenever the rank-order differences ($d_1$) exceed nine.

In Table 25, students No. 2, 3, 7, 10, 15, 17, 19, 20, 26, 28 and 30 are so identified with asterisks after their names. Later in this chapter we will identify these students as UNPREDICTABLE. Other students will be identified as PREDICTABLE.

Two students in programed instruction (No.'s 2 and 3), among those identified as UNPREDICTABLE, regressed in rank-order positions vis-a-vis entering behavior scores and post-instruction judges' ratings. Three students in
Table 25

Differences ($d_1$) in Rank-Order Between Judges' Ratings (T) and Pooled ACT English And Restructuring Scores (T)

<table>
<thead>
<tr>
<th>Student</th>
<th>Judges' Ratings (T)</th>
<th>Pooled Scores (E)</th>
<th>$d_1$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10.5</td>
<td>12.5</td>
<td>2.</td>
</tr>
<tr>
<td>2*</td>
<td>25.</td>
<td>3.</td>
<td>22.</td>
</tr>
<tr>
<td>3*</td>
<td>30.</td>
<td>19.</td>
<td>11.</td>
</tr>
<tr>
<td>5</td>
<td>25.</td>
<td>22.</td>
<td>3.</td>
</tr>
<tr>
<td>6</td>
<td>10.5</td>
<td>14.</td>
<td>3.5</td>
</tr>
<tr>
<td>7*</td>
<td>3.5</td>
<td>24.</td>
<td>20.5</td>
</tr>
<tr>
<td>8</td>
<td>2.</td>
<td>6.</td>
<td>4.</td>
</tr>
<tr>
<td>9</td>
<td>10.5</td>
<td>15.</td>
<td>4.5</td>
</tr>
<tr>
<td>10*</td>
<td>10.5</td>
<td>25.</td>
<td>14.5</td>
</tr>
<tr>
<td>11</td>
<td>25.</td>
<td>30.</td>
<td>5.</td>
</tr>
<tr>
<td>12</td>
<td>16.</td>
<td>9.</td>
<td>7.</td>
</tr>
<tr>
<td>13</td>
<td>10.5</td>
<td>17.5</td>
<td>7.</td>
</tr>
<tr>
<td>14</td>
<td>19.</td>
<td>20.</td>
<td>1.</td>
</tr>
<tr>
<td>15*</td>
<td>3.5</td>
<td>22.</td>
<td>17.</td>
</tr>
<tr>
<td>16</td>
<td>25.</td>
<td>28.</td>
<td>3.</td>
</tr>
<tr>
<td>17*</td>
<td>10.5</td>
<td>27.</td>
<td>16.5</td>
</tr>
<tr>
<td>18</td>
<td>10.5</td>
<td>12.5</td>
<td>2.</td>
</tr>
<tr>
<td>19*</td>
<td>25.</td>
<td>8.</td>
<td>17.</td>
</tr>
<tr>
<td>20*</td>
<td>19.</td>
<td>1.</td>
<td>18.</td>
</tr>
<tr>
<td>21</td>
<td>3.5</td>
<td>2.</td>
<td>1.5</td>
</tr>
<tr>
<td>22</td>
<td>10.5</td>
<td>4.</td>
<td>6.5</td>
</tr>
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*Rank-order difference between two variables exceeds nine.
programed instruction (No's 7, 10 and 15) showed sizable gains in rank-order positions.

Two students in the conventional classroom group (No's 17 and 26) showed sizable gains, while four students (No's 19, 20, 28 and 30) regressed.

Five of the students who regressed in rank-order positions (No's 2, 3, 19, 28 and 30) were among the ten students whose global writing ability failed to meet the minimum acceptable standard. By using a rank-order definition of predictability and unpredictability, we can say that the failure of the five other students (No's 5, 11, 16, 23 and 31) to meet the minimum acceptable standard was predictable.

**Interview Data**

In our search for variables which might explain success or failure in global news writing behavior, we interviewed the sixteen students in programed instruction and the three professional news writers who had been assigned to programed instruction. These interviews, for the most part, occurred during the latter part of the semester. A questionnaire was used at the end of the semester as a means of eliciting new information and to verify responses given at interview sessions.

For the most part, focused interview techniques
Most of the questions were unstructured, such as:

1. "What do you most like about programmed instruction?"

2. "What do you least like, or most dislike, about programmed instruction?"

On occasions, when no response was elicited about boredom, the question was structured: "Have you experienced boredom during the instruction sessions?"

Only excerpts from interviews are presented below. Accompanying these excerpts will be information, some in coded form, which will be presented in the following order: student's number, for reference to previous tables; date of interview, e.g., 4/18/67; achievement (A), little or no achievement (N.A.), or regression (R) in global news writing ability after a semester of instruction; self-description of reading habits: (H) for "heavy" reader, (M) for "medium" reader, and (L) for "light" reader; number of absences, e.g., 5; student reports on boredom (plus sign indicates no report of boredom, while minus sign indicates report of boredom); and, for ease of reference, pre- and post-instruction

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scores and ratings in judging, restructuring, ACT English, and editing.

In addition, if the student's post-instruction global writing ability was predictable—based on rank-order differences in Table 25—the word PREDICTABLE will be used to describe this student; otherwise UNPREDICTABLE will be used.

Here is an example of how the above information will be presented:

Student No. 1, 4/18/67, A, H, 5, +.
Pre- and post-judging: 10 19.
Pre- and post-restructuring: 65 85.
ACT English: 28.
Pre- and post-editing: 101 145.
PREDICTABLE

At the end of each interview, we will include an analysis of the student's writing behavior and responses with comments by the interviewer or instructor whenever these would be pertinent.

Pre- and post-judging: 28 21.
Pre- and post-restructuring: 68 83.
ACT English: 20.
Pre- and post-editing: 100 140.
PREDICTABLE

Reading

Early in my life I can remember my mother reading to me and, later on, my older sister. From the time I
started reading, I enjoyed it immensely. Many spare moments and hours of my time are spent reading novels, short stories and magazines.

Most Liked

The model leads and stories were the most useful things about the materials because if you made a mistake you could actually see where you were wrong. I also liked proceeding at my own pace. The only thing is that if a person is exceedingly lazy this would be a detriment.

The instructor was valuable in that he pointed out careless errors and explained points in the sections that were not fully understood. I'm afraid that the class would be a social circle instead of a study period if the instructor were not present.

I liked all the sections—the way they teach. I can't think of any way to improve them.

The audio tape recordings were better than the written parts. When someone is reading, there's a tendency to overlook something—but the tapes pointed these out and made us go along at their rate. I think they helped a lot.

I liked the class—the way the material is presented—because each person can have different thinking on his own. Also, I don't like class discussions. I like what we've been doing better. We're either right or wrong—no middle of the road. In some classes you can't tell.

Least Liked

There was too much talking in the classroom so that at times I couldn't concentrate.

If the instructor had mentioned that the exams at the end of Sections I and II would try to trick us, it would have been better. I got a little mad at first.

Analysis: This student has an eyesight defect—malformed pupils. The pupils do not contract properly
and she is bothered by severe headaches. This may account for a nervousness or tension which she reported—and for some of her difficulty in being able to concentrate. Also, she might have done better if she had been able to work on the materials at home.

The pre-instruction judges' ratings of her writing were relatively high. This may be due to high school instruction/training in news writing or, possibly, to her reading habits.

Pre- and post-judging: 28 15.
Pre- and post-restructuring: 74 84.
ACT English: 28.
Pre- and post-editing: 155 167.
UNPREDICTABLE

Reading
I'm a voracious reader. I'm always reading something; and if there is nothing else available, I've been known to read labels on cans and jars.

Writing
I've always liked to write. It seems as if I've been writing poetry ever since I was a little girl. My mother likes to write so I think I get that from her.

Writing is harder now. I need to write about factual things.

Most Liked
Programed instruction hasn't been dull. Section I was very interesting and not difficult. I feel that I learned from it. On Section II, I was confused one time. I got linking and transition words confused. Then I went
back and re-read that part. I have it clear in my mind now.

When I first started in programmed instruction, I was a little apprehensive, but now I'm glad I'm in it. Like in acting, you can't teach somebody the talent, but you can teach them the techniques.

Section III was the most helpful. I learned a lot from it. There was some dirty pool in this section, and I'd say the most important thing I learned was CHECK!

The instructor added the personal touch and was there to explain things and to iron our wrinkles. I can't imagine the class with no instructor.

**Least Liked**

An easier way is needed to get to talk with the instructor when we're ready to take section examinations.

After I moved to a different place in the classroom, I had no trouble concentrating.

**Analysis:** The instructor noted early in the semester that this student frequently carried on sotto voce discussions with a classmate. These students were asked to move to different locations, hence the student's remark: "After I moved . . . ."

We are unable to explain why this student's global news writing ability regressed to a point below the minimum acceptable standard.
Student No. 3, 5/9/67, N.A., M, 10, —.
Pre- and post-judging: 12 12.
Pre- and post-restructuring: 65 65.
ACT English: 7.
Pre- and post-editing: 93 136.
UNPREDICTABLE

Reading

I read things that interest me. It's hard for me to make myself read something when I'm not interested. I read some books for fun, but not a lot.

Most Liked

I like the atmosphere. It's relaxed. And I like the way the material is presented. I've learned a lot from it. But for another person besides me—a fellow who couldn't push himself—he'd need someone to push him.

Least Liked

It's kind of monotonous. If I were you, I'd find some way to avoid having students just come into the classroom day after day, sitting down, working, taking tests, then starting again on another section. I think it would really help if we could go out and get a story at the end of Section II, write it, and get it published in the student newspaper.

Analysis: We believe that this student's entering advantage in restructuring and, to a lesser extent, editing may have resulted from a year of high school journalism training.

The boredom factor may explain this student's lack of progress in global writing behavior. On numerous occasions the instructor observed this student looking out the window or just sitting and staring at the materials. He completed two sections of the program and was
midway through Section III by the time the semester ended.

Student No. 4, 5/9/67, A, L, 12, —.
Pre- and post-judging: 12 18.
Pre- and post-restructuring: 44 70.
ACT English: 16.
Pre- and post-editing: 68 117.
PREDICTABLE

Reading

I like to read, if I ever get started, but I hate to start on a book.

Most Liked

Being able to work at your own speed and being able to ask for help about anything you didn't understand.

Section III was most helpful because it taught me to find my own mistakes.

The instructor was a great help because he was very familiar with the material and could give help on any of the material. The class is more informal and smaller, therefore a student can receive more help from the instructor.

Tape recordings showed up our mistakes and the ways to correct them easier than if we had to listen to an instructor.

Least Liked

Sometimes when I had been on a section too long, I'd get tired of looking at it—I'd become bored with it.

Analysis: Based on entering ACT and restructuring scores, this student showed good gains in all writing variables in spite of boredom and a high rate of absenteeism. We wonder what kind of gains would have been made if instruction had not been boring to this student.
Reading

I read an average of 200 books a year. I read almost everything I can put my fingers on.

Most Liked

Working at our own speed and the fact that we had plenty of help from the instructor.

More was brought out in Section III and the pieces began to fit together. I could really see where I needed more work and what I was rather good in.

Least Liked

I felt divorced from the rest of the class. I think a discussion period each week would have helped so that I could see if the problems I had were common ones. Also, I wish we could have had the materials at our disposal anytime we wanted to study.

Sometimes I just hated to come to class knowing we'd just sit there and read. No conversation. This made things rather dull. I guess that's why we talked a lot among ourselves—although I had no trouble concentrating.

At times the instructor was rather too professional.

Section IV could really have been taught later. I realize it will keep us out of lots of trouble, but it seemed rather unimportant so early in our career.

Analysis: We believe that boredom— and the feeling of isolation— was an important factor in this student making only a slight gain in global writing be-
Innovations that will be made in the next programmed instruction course may meet the needs of students like No. 5—including social needs.

Student No. 6, 4/26/67, RH, 4, +.
Pre- and post-judging: 25 21.
Pre- and post-restructuring: 67 76.
ACT English: 20.
Pre- and post-editing: 85 138.
PREDICTABLE

Reading

I'm almost always reading a novel, usually best sellers. Since my family moved around a lot, I think books supplemented a need for companionship. They were company to me.

Most Liked

I'm really glad of the opportunity to be able to talk with the professor as the course progresses—the many questions we have and his going over our work with us instead of just grading. This has been of great help to me.

I think this type of instruction helps me in particular because I've been away from school so long.

For the first time I've had a chance to do some writing and I've discovered that I'm not as bad as I thought. I was afraid I would be a failure. Now I've discovered it's not as bad as I feared it would be.

I've listened to two tapes. . . . Certain things I just won't forget anymore. I think the tapes definitely are beneficial.

Some of the things I've learned in news writing have definitely helped in other courses—forming my ideas and being able to present the ideas clearly.

I don't think this course is as important to some of the other students as it is to me. I'm on scholastic probation so naturally I'm running scared.
Least Liked

I'm not bored and I think I'm doing my best. Of course, I was careless on the last examination. I realize that. I'm disappointed in my carelessness. It's frustrating to make errors. That's about the only thing that bothers me— and it's not a serious thing.

Analysis: We think that this student is a good example of someone who is highly-motivated. He re-read programmed instruction material at least twice before taking section examinations.

He summed up what appeared to be a driving force in his life when he said: "There's no challenge to the job I have. It's a daily routine— monotonous. I just can't see myself punching a time clock the rest of my life. When I'm at work, I feel like a square peg in a round hole."

Since this student was the second oldest one in either group (age 30), we wondered if talking or movements in the classroom disturbed him.

"When I'm concentrating," he said, "nothing really bothers me. If anything, I think the congenial atmosphere is conducive to concentration."

Student No. 7, 5/8/67, A, M, 0, +.
Pre- and post-judging: 10 25.
Pre- and post-restructuring: 48 62.
ACT English: 14.
Pre- and post-editing: 75 123.
UNPREDICTABLE
Reading

My reading habits are not the best in the world. I do read for enjoyment, but mostly I do a lot of textbook reading. I think my outside reading has picked up a lot since I started college.

Most Liked

I liked programmed instruction because I could work at my own pace. I wasn't forced to know the material at a certain time.

The material is pretty good—not boring. At least I know how news stories are written and how to put them together. I'd be in a daze if the instructor were just talking about how to write news stories.

The classes don't drag. As time goes on they seem to get better. The longer I'm here the more interesting the materials seem to become.

I've talked to other students in the class. They seem to enjoy it. They like it because there isn't this tension. You don't have to go into the room and be expected to do certain things that day.

I liked Section III because it covered most of the common mistakes I make, but all of the sections were helpful.

The instructor helped me most by challenging me with questions concerning each section.

Least Liked

Sometimes I had to wait to talk with the instructor about my work.

Analysis: Based on entering behavior scores, this student made one of the largest gains in global news writing behavior. We believe that student and method were extremely well matched in this case. Self-pacing
and the absence of pressure probably were the principal factors in this student's achievement. In revising programed instruction, we want to keep students like No. 7 in mind while seeking concrete, active experiences for students like No. 3 and 4.

Student No. 8, 3/21/67, A, M, 4, +.
Pre- and post-judging: 12 32.
Pre- and post-restructuring: 68 32.
ACT English: 29.
Pre- and post-editing: 125 150.
PREDICTABLE.

Reading

If something interests me, I'll read it. I used to read a great deal in grade school. Whenever I get a chance, I read magazines.

Self-Analysis

I'm aware of my ACT scores. They're the basis for everyone saying that I should do better than I do. The results became generally known to my teachers and from then on they generally were on my back. I guess I could do better, but I kind of loaf. That's my personality. I don't have a great amount of initiative or ambition. I'm kind of drifting through journalism. I don't know what I might end up doing. Maybe I'll be a fireman or a cowboy. I might go into math. So far journalism has caught my eye—largely because of my high school journalism teacher. She set up an illusion that I liked journalism and nothing's come along yet to disillusion me. This journalism teacher was the best teacher I've had. Fabulous! She was just like one of us. She knew just what we were thinking. Real good communication. She was able to establish a rapport with the students.

I would describe myself as an extrovert. I can't keep my mouth shut. I realize this, but there's nothing I can do about it. I got this great thing about being an individual.
Most Liked

The feeling that there was no rush, yet we had the responsibility of finishing on time.

Section IV, covering libel, contained valuable information which I hadn’t encountered before.

The instructor was very valuable in analyzing the work at the end of each section. It wouldn’t have mattered to me whether or not he was present in the classroom as far as learning the material goes.

It might have been difficult to concentrate if the class were more crowded, but it was just the right size for the work we were doing.

The program is good because you can work on your own—you don’t have to follow a certain regime. It hasn’t been boring. Fairly easy—but not a snap. I like the course.

Least Liked

Some of the sections went into too much detail.

Section I—on newspaper leads—was the least helpful because I had studied this material in high school. No complaints, however, because it was good to review and other students may not have had it.

I think the instruction could have been improved by eliminating some of the practice exercises in the sections. No other complaints.

Analysis: We think the lack of what we shall call petty discipline, as well as considerable freedom of movement, may have suited this student very well. On occasions he seemed to be doing very little, if anything, with the materials. On other occasions he appeared deeply involved.
This student seemed to be the pacemaker. He was the first to finish each section. Other students checked with him on how far he had progressed—as a way of checking their own progress. In this connection, a progress chart was maintained by the instructor showing when a student had completed a section, taken examinations, received remedial material or audio tapes, and what weaknesses had shown up in the student's writing behavior. This chart was available for inspection by any student in the class. It was placed against the blackboard at the beginning of each class period.

This student, like No. 2, also liked to socialize with his neighbors in the classroom.

He had the largest pre- to post-instruction regression in restructuring scores of anyone in either group, yet he was among the leaders in global writing ability. We do not know what would account for such a sharp regression in restructuring ability.

Student No. 9, 4/28/67, A, M, 4, +.
Pre- and post-judging: 8 21.
Pre- and post-restructuring: 58 62.
ACT English: 21.
Pre- and post-editing: 107 142.
PREDICTABLE

Reading

I'd say that I'm in the medium reading category. I usually read the daily newspapers and popular magazines.
I also read an average of one or two books a month besides the ones assigned in classes. In high school, I read a great deal.

**Most Liked**

This course reminds me of another programmed instruction course which I had in high school—English 3200—so I guess I'm used to it. I think this program is good. The facts are all before you.

I think the reviews at the end of each chapter helped most, and the material all follows real logically. The reviews really help a lot.

The exams are helpful at the end of each section. When the instructor goes over the exam with me and points out things, it kind of sticks with me better.

I also like being able to work at my own speed, and not being under pressure.

The first two sections were most helpful. They gave me the fundamentals which I hadn't had before.

**Least Liked**

The fact that we couldn't have the sections with us at all times.

The third section was mostly review, but the editing part of that section was helpful.

I can't tell how fast we're supposed to be going. If we had an average time for each section, then we could tell how fast we should be working. But I'm not really sure about that because if a student is working slow he might be getting it better than if he was working fast.

**Analysis:** This student reported that she was not bored by the instruction, yet she also said that at times she just sat and looked at the material. "Sometimes I can't work—when I can't get ideas. That's just me."
This student did not complete the Section III examination, although she did complete the programed material for that section.

We doubt that time limits would have helped this student. She was a slow worker (comparable to student No. 7) with an initial entering advantage attributable to previous instruction/training, yet she showed good gains.

Pre- and post-judging: 10 21.
Pre- and post-restructuring: 37 44.
ACT English: 17.
Pre- and post-editing: 69 112.
UNPREDICTABLE

Reading

I enjoy reading. Until this past year I was probably above average in outside reading. I like to read magazines, especially the news-type magazines. I usually skim through these, picking out stories on national issues.

Most Liked

This is the third year that I've been in college and during this time I've taken 'a few classes.' This enables me to make a comparison with other classes. The instructor in programed instruction is one of about three I've had who takes the student into consideration and helps him as an individual instead of treating him just as a number. The instructor has especially helped me in this class and I hope that this system is used in Journalism 202.

Programed instruction is the easiest way of learning--giving us these sections before we start writing. It's very helpful--especially for a person who's never written a news story before.
I don't think any of the sections can be classified as least helpful because all of them served their purpose. Section III gave me help in punctuation and also let me put to work what I had learned from the first two sections.

Working at your own rate and working in close association with the instructor were the best things. The instructor helped in discussing the mistakes and how to correct them. He handled the class in an informal manner—the way one should.

To me, the tape recordings represented interviews and news events. They took the place of going out and getting a story and they gave the student knowledge of what to look for before he does go out.

The marked newspapers are beneficial. I've reached the point where I read a newspaper to find out how well the stories have been written.

Least Liked

I'd like to be able to work on the program out of class. This would allow some time in class for discussion of what we've been doing.

At the end of Section II, I'd tell the students to go out and get a news story somewhere on campus. It's like military science tactics. I've had three years of ROTC, but last Saturday was the first time I'd put these tactics to use in a field problem.

Analysis: Early in the semester this student was seated next to student No. 2. Lengthy conversations frequently took place until the students were relocated elsewhere in the classroom. Afterwards student No. 10 appeared to become more involved with the materials at hand.
Student No. 11, 4/18/67, R, M, 3, +.
Pre- and post-judging: 18 15.
Pre- and post-restructuring: 32 59.
ACT English: 13.
Pre- and post-editing: 69 127.
PREDICTABLE

Reading

I enjoy reading weekly news-type magazines--just to breeze through the news of the week. I try to read about two books a month, usually classics. This past summer I enrolled in a reading program which was given at Syracuse University. This program greatly improved my reading interest and speed.

Most Liked

Never before have I received such personal instruction. Without an able instructor, the entire course would be a failure. Without being able to go over our stories with the instructor on a personal level, the program would not stand a chance.

The informal classroom situation was a first for me. I felt more independent and responsible for my own actions.

The class is very informal. The instructor has walked out several times and the class has continued. The personal help the instructor gave us is tremendous. Individual discussion is an important part of this class. I think this is especially important in writing. Sometimes writing is a personal thing and you don't want to discuss it with just anyone.

Section I presented the most material and it was interesting--being the first one. All the material was presented clearly and simply.

The tapes took the place of the instructor. They got the material across just a little better than reading it. They were a novel and unique experience--like the instructor speaking to us.
Least Liked

Sometimes the reading became a little slow, the exercises a little too childish.

Getting used to the material and its method of instruction took a little time. I would like to have taken the materials home.

I think programed instruction has a lot of potential and it's going to be pretty big as it's developed a little more; but I feel right now that in comparison with the conventional classroom group I'm just a little behind those students. I think experience is the biggest factor here. I feel that if I had done ten stories now, instead of just a few, I'd be much better off.

On the whole I think we're moving ahead slowly. I like to work hard on certain things.

Analysis: This student did not complete Section IV. He was slow, but he completed the same number of sections as student No. 7 who made good gains. Yet both of these students had about the same entering behavior scores and ratings.

Boredom may have been a factor with student No. 11. In a questionnaire at the end of the semester, he reported that he had been bored "once or twice" during the semester.

Perhaps, also, the principal means of communication in the classroom was less to this student's liking than some other means of communication. That is, the student may not respond as well to printed
material as he might to some other kinds of communication vehicles, such as audio tapes.

The multi-faceted communication approach is used, for example, to teach biology at Purdue University.

Individuals differ in their responsiveness to different kinds of communication devices. Some people learn well through reading, some can learn best by auditory communication, and others can learn best by literally handling specimens and the doing of experimentation.

... A good system should provide an opportunity for subject matter to be covered in a great variety of ways with the student exploiting that medium which communicates most directly and effectively for him.11

We believe that more ways of communicating knowledge and skills can be opened up in the next experiment with programmed instruction. We will discuss what we intend to do in Chapter VI.

Student No. 12, 4/27/67, A, H, 2, —.
Pre- and post-judging: 10 19.
Pre- and post-restructuring: 66 58.
ACT English: 25.
Pre- and post-editing: 114 140.
PREDICTABLE

Reading

I do quite a bit of fun reading. I've always read quite a bit even when I was young. It's kind of a family trait. Everyone who comes to our house comments on how much we read. My father reads a great deal. I'm a pretty thorough reader of magazines, but I usually just scan newspapers looking for things that interest me.

Most Liked

You learn a lot at your own speed, and you can be sure that you understood it all because the material is clear and you can ask questions of the instructor.

Section II was most helpful because we began to write complete news stories; but I also feel that the entire program was important in certain ways.

I like the way the instruction is down on paper. It's clear.

The models have helped quite a bit. I wouldn't have an idea what my story should be like if I couldn't refer to the models. I usually don't look at the models first. When I've done something, then I look at the models. If I'm close, I feel that I've learned something.

When I write a story now it logically falls together. At first I think I paid more attention to logical links than I do now.

The instructor was of great value because he made everything clearer. Questions were always answered and mistakes were explained.

The tapes also explained mistakes and gave you more stories to practice on. They were helpful.

Least Liked

Occasionally I was bored if I worked a few weeks on the same section or if I worked a long time on one story—but this was not frequent.

Possibly more actual teaching by the instructor would have improved the course, but nothing really would have improved it much.

Analysis: On the basis of ACT and restructuring scores, this student had the potential to do better. We think that boredom may have limited her achievement.
Pre- and post-judging: 10 21.
Pre- and post-restructuring: 51 52.
ACT English: 22.
Pre- and post-editing: 78 118.
PREDICTABLE

Reading

I read a lot when I don't have anything else to do. I don't like to read something that's long and drawn out, so I don't read many novels.

Most Liked

It's teaching me something— that's for sure. It's helped a lot. No one thing sticks out as helping most.

I've talked with others in the class. They think it's pretty good instruction except they say it gets boring after awhile.

Least Liked

Nothing that I dislike, except doing the same thing over and over again.

I wish we could go faster— get done quicker. I'm working on this Section II exam and I'm trying to get it perfect. It just takes so long. I think a time limit on this material would be helpful.

Analysis: In the questionnaire at the end of the semester, this student indicated that the course had not been boring. The impression left after the above interview is that he found programed instruction somewhat boring. His seven absences also would indicate this.
Reading

I like fun reading, but I don't always have the time, especially now that I'm in college. Last semester I tried to read a book every week--pleasure and otherwise. I'm not a very fast reader.

Most Liked

I liked the relaxed atmosphere--so much that I probably was too relaxed and did not work as well. I did learn and improve some, but I think I could have learned more. A little tension helps in learning, I think.

I think the tapes have helped a whole lot on taking notes. Good practice.

Section I seemed rather easy--set up rather well, I thought. The logical links in Section II helped a lot since tying things together has been kind of rough for me to do in writing. But I really didn't learn anything from this section until I got to the tapes. Section III seemed to help more with the basic things, which I need most.

The instructor is of great help. Even with the model in front of you, you can't always tell if you're right. The model may have a paragraph one way and you wrote it another. Without the instructor you wouldn't be able to tell if your story is just as good.

Least Liked

The one thing that I don't like so far is that you can't work on anything out of class. Sometimes I do my best work out of class.
I don't think I'm working at my best. I think if there were a time limit on each section that this would help—and help discipline. Lots of times two or three students get together and start talking. This should be restricted.

In all of the sections there should be more practice exercises.

**Analysis:** This student indicated in the post-instruction questionnaire that he had not been bored. He completed four sections, but not the Section IV examination.

When asked if he would sooner enroll in a programmed instruction or conventional classroom section of Journalism 202, he replied: "Neither. I would rather enroll in a class where both methods were used—where one can learn a principle and then go out and get a story and apply that principle."

We believe that stiffer workloads—practice exercises and out-of-class news assignments—would have appealed to this student and perhaps made it possible for him to score larger gains in news writing behavior.

Student No. 15, 4/18/67, A, M, 4, +.
Pre- and post-judging: 13 22.
Pre- and post-structuring: 44 67.
ACT English: 19.
Pre- and post-editing: 83 130.
UNPREDICTABLE
Reading

I don't read much in college. I haven't read a book just for enjoyment since I started college work, but I do like to read good books when I have the time.

Most Liked

The material is before you and you can just read it. It's pretty well explained and I think it gets across to me real well.

I study the material real hard—go over it twice. It's just that my writing is careless and I know it.

This is the fastest class I've had. The material doesn't bore me at all. I'd sooner read than listen to some instructors who are just naturally boring. When they're bored, you're bored.

The tapes are needed, but they're not a real help. They give you another chance to correct mistakes that have been made.

Section I was very helpful—the best one, I think. Also, Section II was very good.

The instructor is very helpful. Some information that is not in the instruction course is in the instructor. Without the instructor, mistakes could not be pointed out.

Least Liked

The time goes real fast and I work at the material steadily. The only slow part seems to be when I had to wait to talk with the instructor.

Self-Analysis

I think I have an inferiority complex. I've been that way as long as I can remember. I just don't think I can do what I'm supposed to do.

Just about the only thing I was good at in high
school was cross-country track, even though a lot of people have told me that I should have more confidence in myself.

I'm kind of a dreamer. When I go to a class I know what grade I can get out of it. But it doesn't end up that way. I put everything off—especially my school work—and this gets me in trouble.

I used to be good in English. I coasted along in high school and came here and now I can't write a theme.

**Analysis:** We believe that this student responded well to printed material and, judging by his comments, that he would not have done so well in the conventional classroom group. There would have been more pressure on him in that group to get news stories.

This student needs to experience success. Programed instruction made less demands upon him and led him through more successful writing experiences than probably would have been the case in the conventional classroom. He seemed to respond to this kind of instructional situation.

In the post-instruction questionnaire, he wrote: "This class went by the fastest of any class I ever had at Marshall."

While we may not be able to identify the student who matches the method, or the method that matches the student, we can provide alternate routes of learning and
let the student choose the route most suitable to him.

Student No. 16, 5/8/67, N.A., L, 7, —.
Pre- and post-judging: 12 15.
Pre- and post-restructuring: 36 46.
ACT English: 19
Pre- and post-editing: 101 115
PREDICTABLE

Reading

I don't read very much just for pleasure. If I hear about something that's good, I'll read it. There's lots of things I'd rather do than read.

Most Liked

I think the instruction is pretty good. There's no apprehension. No pressure.

I think the informal atmosphere is better. Some professors run classes like the sixth or seventh grade. They close the door at nine o'clock sharp and won't open it.

The movement in the classroom is not distracting.

The models do help. If I wasn't sure—couldn't check the models—and just kept on going, I'd become confused.

I liked the tapes, they were better than reading the facts.

Least Liked

I'm not as enthused about programed instruction as I was—at the first of the year. Something is needed to break it up. Every day I find myself looking out the windows more and more.

If I could have a choice between the two classes next semester, I'd choose the conventional one—going out and getting stories.
Analysis: This student's boredom was so obvious that one of the professional news writers in the class commented on it when interviewed. We do not know what improvement, if any, would have occurred in the writing behavior of this student had he been assigned to the conventional classroom group, but the treatment certainly would have been more humane.

Professional Writers in Programed Instruction

We interviewed the three professional news writers assigned to programed instruction. Information preceding excerpts from the interviews does not indicate achievement, non-achievement, or regression. Also, there is no prediction statement.

Pre- and post-judging: 15 32.
Pre- and post-restructuring: 64 71.
ACT English: No test taken.
Pre- and post-editing: 110 126.

Most Liked

The material seems logically organized. We're given the basic principles and then move on from there.

I think it's helped me. I've a feeling of knowing what I'm doing and why. My background is that I started in the newspaper business eight years ago. I went to work in the newsroom, the telephone rang, and from then on I was on my own.

When I write a story I never think of logical
links. I just write. I think the logical links have helped. Now when I write a story I glance back to see if I used them. I find that I've been using them more or less unconsciously.

I'm more conscious of wordiness now. I always thought that you had so much to write and when you got to that point you quit. You didn't worry about being concise. I think Section III pointed this up nicely--to be concise. It's been a review in punctuation, too. This helped some, but not nearly as much as the wordiness part.

I've only been bored once or twice. I can take the material and go at my own pace. No one in the class is held up by someone else.

Talking and movement doesn't bother me. I'm conditioned to this because of work in the newsroom.

Programed instruction provided the opportunity to learn a more solid basis for writing news stories. It gave tips that I had not thought of before.

The section on libel was very helpful since I wasn't too familiar with the laws.

**Least Liked**

There was a problem getting to see the instructor before we could move on to something else.

I think at some point the students should go out and get a story. This would be putting into practice what they've learned.

Let them take the materials home. Then they could do writing exercises in class and critiques could be conducted.

**Analysis:** We believe that this writer represents the back-door approach to a journalism career. He learned by doing. Poor writing habits were indicated by his entry behavior scores and by the gains he scored.
Comments made by this writer illustrate a concept of news writing mastery which we briefly mentioned in Chapter II (pp. 34-36). The student said that he had been using logical links "more or less unconsciously." He also said, "When I write a story I never think of logical links. I just write."

While we do not believe that this writer has mastered writing, we do believe that his application of principles to his writing exemplifies a distinction we are trying to make between learning and mastery. We shall discuss this concept in Chapter VI.

Professional Writer No. 3, 5/11/67, H, 10, —.
Pre- and post-judging: 23 36.
Pre- and post-restructuring: 82 88.
ACT English: No test taken.
Pre- and post-editing: 144 155.

Reading

We have an extensive personal library at home. My brother and I were always encouraged to read. I had read all of Shakespeare before I went to high school. We used to play a game at home called "Stump Dad." We'd find new words in the encyclopedia and try to stump our father. The winner always received a little extra allowance.

Most Liked

I've had programmed instruction before and to be very frank I never had much faith in it until I saw it used in this class.

All of the material is very clear, very easily understood, and not beyond the reach of beginners. The
approach of working at your own speed is very conducive to learning the material. I think the lack of lectures in conjunction with the material is helpful in this case.

The logical links are very helpful. These are things that I notice now that I had taken for granted.

I think the material is very helpful en toto. It has many advantages over the trial-and-error method and lectures.

The models are definitely helpful. I think perhaps it would be better if space were provided in the material to do the work and then give the models. I like the idea of having the answers to the questions almost right away.

Least Liked

Yes, I get bored in the class. There's a wee bit too much of the fill-in-the-blanks type of thing. This is not too much of a challenge.

I don't think students would take the materials home and work on them. The home students might, but not the dormitory and fraternity-sorority students.

Students should have a chance to go out and get a story sometime during the course--probably at the end of Section II.

A good idea would be to give unmarked newspapers to the students and let them find logical links and transitional devices.

The reading at times became laborious. I became bored only when wading through stretches of reading and the 'fill-in-blanks' material.

The audio tapes were not particularly helpful. The same material could have been covered in less time with written instructions and text.

Analysis: This student had five years of general news writing experience. We think his suggestions and
criticisms were, for the most part, excellent and we intend to make several major changes as a result.

Professional Writer No. 4, 5/9/67, H, —.
Pre- and post-judging: 29 40.
Pre- and post-restructuring: 77 70.
ACT English: 22.
Pre- and post-editing: 136 158.

**Most Liked**

I very much liked the idea of working at my own speed. I also think that in the long run things may be remembered longer.

Logical links are probably of more help than anything else. Usually the surface is scratched on how to write a lead, but lots of courses and books won't go on to the story and say this is how to do it. I thought the logical links and transitions were very helpful. I find myself looking for them when I read outside newspapers.

There are little things that I knew already, but the majority of the material is helpful. The program doesn't include a lot of information that is not needed. You have these sections and you can't rattle on and on. The material is concise and has the things that you need.

The models are probably more helpful than anything else. Basically if you learn the model you'll have a pretty good idea how to write a story even if you do deviate from the model. I think the models make you remember longer than anything else.

Noise and movements don't distract me. In fact I think the informal atmosphere here is good—especially if you're going to work for a newspaper.

Section III helped in learning to punctuate correctly; however, it was not as helpful as Sections I and II in actual news writing.
Least Liked

My biggest apprehension and complaint—and I keep telling myself that this will be worked out—is that the program doesn't give you experience. I'm too slow. This program might tend to make me more careful, but also slower. I would sooner have been in the class where we had to go out and get news stories; but it's hard to tell what's good and bad for me right now because I don't really know.

There's not as much work in this section as in the other section because the other section involves more work outside of class. I'd like to be writing more so I could prove to myself that I can write better. I think this is the only part that could be called dis-satisfying or boring.

Many times I've felt that I would have liked to have taken the material home or, better still, gone out to do a story.

I also feel that there was more or less an atmosphere of mystery about the program, which I assume was justified. However, I do feel it would have been beneficial to students to understand something about the program and its purposes before they attempted to work under it for an entire semester.

I can definitely say that I learned a great deal from the course, but I cannot say that I wouldn't have learned more in the conventional section.

Analysis: This writer had worked for one and one-half years on a small daily newspaper before enrolling in Journalism 201. She had about the same length of professional news writing experience as Professional Writer No. 1 who continued to work on a large daily newspaper throughout the semester. In spite of the continual practice that Writer No. 1 received while working for the daily newspaper and in the classroom,
Writer No. 4 led the professional writers in post-instruction global and mechanical writing ability. She was the only writer to receive ratings of "good professional quality" from all four judges. In her case, concrete reassurances, such as by-lined stories in the campus newspaper, might have eased her anxiety to a considerable extent. Whether these experiences would have improved her writing ability is conjectural at this time.

The "atmosphere of mystery" that she refers to stems from our request to both groups not to intermingle or to help one another; and, in the case of the programed instruction group, students were asked not to participate in any news writing activity outside the classroom. We hoped, in these ways, to reduce the chances of contaminating experimental results and to be able to state, at the conclusions of the experiments, that programed instruction was more efficient than the conventional classroom method.

As for the students in the conventional classroom, we are going to capsulize their comments about the method of instruction to which they were exposed. We interviewed five of the fifteen students in this group and each student responded to a questionnaire at the
end of the semester. Data on these students can be obtained from Tables 19-21.

Student No. 17 missed one class session, reported no boredom, and showed good gains in writing behavior.

I think I mostly enjoyed the informal manner of conducting the class. I felt more at ease in this class than any other. I was never afraid to answer questions whether I was right or wrong.

Also, I think it is very important that teachers have a sense of humor because wit like the instructor's made the class enjoyable.

This student reported that the opaque projector, used for criticizing students' stories, was most helpful.

Student No. 18 regressed in global writing behavior (from a rating of 22 to a rating of 21), reported no boredom, and had one of the highest absenteeism rates in both groups. He had no criticism of the class.

The absence of a textbook is what he most liked.

We still had to read the book, but it wasn't like other classes where you had to read a chapter every day, follow each hard and fast rule, and have textbook exams every week. I also liked having an instructor who had experience on various newspapers and was able to relate these experiences to the class.

Student No. 19 showed little or no gain, missed six classes (most of the absences attributable to a broken leg), and reported no boredom.

I liked the pattern of teaching; specifically going over the text for the cut and dried facts, then,
without class time wasted in lectures, applying the facts in actual writing situations.

The most helpful things were going out and getting our own news stories and the time spent taking our stories apart through the use of the opaque projector.

Student No. 20 regressed in writing behavior (from 25 to 18) and restructuring scores, reported no boredom, and attended all classes.

I most liked being able to get out and get the stories. I don't think I could stand being in the section that has to deal with all those mimeographed stories. I also liked writing stories for the student newspaper and being able to tell classmates that I wrote a certain article.

The instructor's inspiring speeches made me want to go out and get more stories; or, when I was down on the job, they made me feel guilty enough to go out and hunt the stories down. Also, the class was interesting enough so I didn't mind going to it.

Student No. 21 showed good gains, missed one class, and reported no boredom.

The actual writing of the stories was the most interesting part of the course. In some instances the news gathering, or interviews, were very interesting.

I think going over each student's story was very helpful because once you see a mistake in print, especially in your own story, you are not likely to make it again.

I think the textbook could be condensed to about one-fourth of its size and still cover all the important facts. While it is easy reading, and interesting in some parts, it has not really affected my writing in this course.

Student No. 22 showed a slight gain in global
news writing behavior, missed four classes, and reported no boredom. He most liked the "informal atmosphere" of the class and the absence of any "great pressure" on the students.

The use of the opaque projector was most helpful. Most of us write in much the same way and fault-finding on other stories is close to individual attention.

The textbook seemed silly and rather obvious to me. Lectures and advice from someone who has done reporting were much more helpful.

Conventional instruction seems more practical because we learn by doing.

Student No. 23 showed good class attendance, reported no boredom, and showed little or no gain in global news writing behavior. She had no criticism of the course and reported that lectures and actual writing of news stories were most helpful.

Student No. 24 showed good gains, was absent twice, and reported no boredom—"just restlessness." He most liked "meeting people that I probably would not have met," and he least liked "the fact that the class was so time consuming."

I benefited just by writing. The screen was very effective for me. Every mistake that was pointed out I tried never to make again. I felt like a convict everytime the instructor brought out the opaque projector. I hated to be used for class discussion. But I got a lot of satisfaction when finally one of my few stories was printed.
Student No. 25 showed a gain in global news writing behavior (from 15 to 21), was absent from class fifteen times, reported no boredom (1), regressed in restructuring ability, showed a slight gain in editing ability, and reported no criticism of the course.

Student No. 26 showed good gains in writing behavior, missed no classes, and reported "infrequent boredom—very infrequent."

The instructor gets his point across and it kind of wakes up the class. I think I'm learning news writing techniques. The examples on the screen are quite helpful.

I've had one story published in the student newspaper. This gave me a little more confidence—knowing that I could do it even if I only did it once. I'm gaining confidence each time I do a story.

Student No. 27 showed the highest gains in global news writing behavior (from 21 to 36), missed no classes, and reported no boredom.

I most liked the informal atmosphere of the class. What was most helpful to me was the instructor writing a story on the blackboard after he had given the facts to the class. I also liked the critiques of our news stories through using the opaque projector.

The book was written in a simple manner. It was more entertaining than informative. Most any textbook would be equally as useless.

I don't know much about programmed instruction, but it would seem that no instruction could be better than actual practice—going out to get the stories.

Student No. 28 regressed in global news writing
behavior (from 13 to 12). He missed two class sessions and reported no boredom. In analyzing his own gains, he said, "I think I learned some, but I don't think I learned very much."

He most liked "going out to get stories because experience is the best teacher;" and he least liked "the pressure to get stories when I didn't think I could get any."

Student No. 29 regressed in global news writing behavior (from 24 to 18). She missed two class sessions and reported no boredom. During an interview on April 26, 1967, she reported:

Mostly we're just writing stories and the instructor corrects them and it's up to us to figure how to improve.

I'm learning how to do good leads. They're easier to do and I'm getting good practice.

I like the use of the projector. I can look at other people's stories and tell what's wrong with them. I never find as much wrong with my stories as the instructor does.

In the post-instruction questionnaire, Student No. 30, who regressed, wrote:

This is the only class I've had so far that I really wanted to go to--one of the few classes where I've not been bored.

The criticisms of the stories were most helpful--if you could take it. To say that the criticism was frank isn't enough. Even though it was brutal at times it made you want to improve.
The student least liked the "routineness of the stories that were available," the textbook, and the "pressure to get stories."

Student No. 31 missed no classes, showed no improvement in global news writing, and reported experiencing boredom "a couple of times."

One of the most important things I liked about my section was the fact that we weren't pressured constantly. We knew we had work to do and I guess for the most part we did it.

I feel that the best instruction was when we discussed in class the stories written by members of the class. Seeing errors made by other students helped me to correct my own. Also, the actual experience of getting the stories helped in learning news writing.

Professional Writer No. 1 (Chapter II, pp. 62-64) showed good gains in global news writing ability (from 22 to 37) and in mechanical writing ability (111 to 145).

Of course, in my case I think I'd have to be a little bored. Some of the stuff I've heard over and over from the two editors I've worked under. Only every now and then was I bored. Some of the basics that I already knew weren't boring, but some were.

I most liked getting out and meeting some of the people on campus. I am certain that I wouldn't have gone out and met as many people if I hadn't had to get some stories.

The critiques of the stories were most helpful. When you're writing sports for a daily newspaper with a wide area circulation, people are happy just to see something in the paper about them, no matter what the quality.

Pushing me more would have helped most. Sports writers tend to get very lazy just writing sports. I
wanted to get more help and experience on news writing because I don't want to be a sports hack all my life.
Chapter VI

CONCLUSIONS AND IMPLICATIONS FOR FUTURE STUDIES

This chapter will state conclusions of the study and draw out implications for future studies.

As with most studies, we have raised more questions than we have answered. Several hypotheses have been generated which warrant subsequent investigation. We are not surprised that this has happened. Had it not, the study would be barren of suggestibility.

Hypotheses

Having tested the effects of the experimental treatments on the two dependent variables (judges' ratings and editing test scores), we can relate the results to the hypotheses stated in Chapter IV (p. 104):

$H_0$: Group 1(n.w.a.) < Group 2(n.w.a.)

$H_1$: Group 1(n.w.a.) ≥ Group 2(n.w.a.)

$H_0$: Group 1(n.w.a.) = Group 2(n.w.a.)

$H_1$: Group 1(n.w.a.) > Group 2(n.w.a.)

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We rejected the null hypothesis that group one (programed instruction group) was not equal to group two in news writing ability (n.w.a.)—with news writing ability operationally defined as judges' ratings and editing test scores.

We accepted the alternate hypothesis that group one equaled or surpassed the conventional classroom group in news writing ability. We then had to determine if group one equaled or surpassed group two. Our conclusion was that group one is equal to group two in news writing ability.

There were, however, some differences in the results obtained by the two methods:

1. Eleven of the sixteen students in the programed instruction group showed gains in global news writing ability. Seven of the fifteen students in the conventional classroom showed gains in global news writing ability.

2. Six of the eight students in programed instruction, who had previous journalism instruction or training in news writing at the high school level, showed gains in global news writing ability. Two of seven students in the conventional classroom group, who had previous high school journalism instruction and/or
training in news writing, showed gains in global news writing ability.

Subject to replication, the conclusion that we draw from the above differences is that programmed instruction is producing more gains in global news writing behavior among students with previous instruction and/or training in news writing. What this may mean is that trial-and-error learning is least effective for those students who had previous high school instruction and/or training in news writing. One explanation is that these students learned incorrect writing responses at some previous time so that additional trial-and-error learning situations are less likely to bring about desirable changes in writing behavior.

In programmed instruction, more correct responses are "engineered" by the design of the program. Also, correct responses are reinforced almost immediately; that is, a student learns almost immediately if he has responded correctly. In trial-and-error learning situations, corrective instruction may not be provided at the time it is most needed; that is, when the student is making mistakes.

Another notable difference between the two groups is indicated by the variance of the ratings assigned by
the judges to global writing behavior of each group, and the variance between the editing test scores for each group:

1. The variance of the judges' ratings for the programed instruction group was 21.43. The variance of the judges' ratings for the conventional classroom group was 32.83.

2. The variance of the editing test scores for the programed instruction group was 166.25. The variance of the scores for the conventional classroom group was 311.44.

We conclude that programed instruction produced more uniform results in global and mechanical news writing behavior.

Problem Statement Conclusions

In Chapter I (p. 14), the problem under study was stated. Our conclusions, as these relate to the problem statements, are:

1. We have designed and developed a prototype program of instruction which contains considerable self-instruction. The program has taught fundamental news writing skills to students at the college level.

2. We have tested this program and determined,
within stated limits, that it teaches as well as conventional classroom instruction.

3. Because of the design of the experiment, we can say that less time was required by students in the programed instruction group to equal the news writing ability of students in the conventional classroom group; therefore, we conclude that programed instruction is more efficient in that it reduces learning time.

Implications for Future Studies

1. In Chapter V, we operationalized a variable (restructuring ability) which, at the pre-instruction stage, is significantly associated with post-instruction global news writing success in the conventional classroom. Subject to further testing, this finding indicates that students who can make better discriminations between well- and poorly-organized writing stand a better chance to succeed in a beginning news writing course when that course is geared to the conventional classroom method (a method chiefly characterized by the trial-and-error method).

The implication of such a finding is this: a better-than-chance method becomes available to journalism educators to identify students who are not likely to do
as well when the trial-and-error method of instruction is to be used. To place such a student in a trial-and-error learning situation may be wasteful in time and energy for both student and instructor. A different method of instruction is indicated for such a student—one that can lead the student through more successful trials during initial learning experiences.

2. The pooled scores from two variables (ACT English standard scores and restructuring scores) may yet provide a predictor of global news writing success for students in either conventional or programed instruction classes. If boredom can be removed as a factor limiting achievement in the programed instruction class, these variables may emerge as pre-instruction predictors of news writing success. We will want to examine these variables in the next experiment to see if their relationship to news writing success becomes stronger if the influence of boredom on learning is reduced.

3. There appears to be a positive association between reading habits, restructuring scores, and ACT English scores as these relate to entering global news writing behavior of those students who have had no previous news writing instruction and/or training in
high school. Previous high school news writing instruction and/or training seems to confound the above relationship.

At the post-instruction stage, however, the above relationship breaks down. Some students gain in global news writing ability and regress in restructuring ability, while others regress in both global news writing ability and restructuring ability. We are puzzled by these changes and what they mean.

On the other hand, students with relatively low pre-instruction restructuring scores, who show good gains in global news writing ability, also show, for the most part, good gains in restructuring ability. This seems to us a more logical development in writing behavior.

4. Boredom appears to be a variable which is limiting the achievement of at least seven students in programed instruction (No's 3, 4, 5, 11, 12, 13 and 16). Five of these students reported experiencing boredom and, based on interview data, we believe that this variable may have been operating in at least two other cases. Boredom does not, however, appear to be a significant variable in the conventional classroom situation.

Why, then, did the conventional classroom group
not do better vis-a-vis the programed instruction group?

Apparently the mere absence of boredom does not assure desired changes in writing behavior. Conversely, boredom does not prevent desired changes in writing behavior. Nevertheless we believe that boredom acts to limit the extent of such change.

By isolating factors which appear, on the basis of learner reports, to contribute to boredom, the prototype program can and will be revised in the following ways:

a. Students will be permitted and encouraged to take programmed materials home with them.

b. A real news writing experience will be programmed at the end of Section II of the prototype for those students who wish this additional test of their power to write. In such cases, students will be temporarily branched out of the program.

c. Additional experiences of the type described above can be programmed for students who express a need for them.

d. A weekly discussion session will be programmed to examine problems and writing difficulties common to beginning news writers. Such discussions will provide an additional two-way communication vehicle—
from learners to instructor and from instructor to learners.

e. More audio tapes will be integrated into the prototype program to supplement some printed material.

5. From interview data, we can identify students who indicated a preference for aural communications: students No. 1, 11, 14 and 16. At least two students (Nos 7 and 15) indicated a preference for printed material.

Although we may not be able to identify, prior to instruction, students who prefer aural to visual communication vehicles, and vice versa, we can take steps to anticipate individual preferences. Again, for example, the Department of Biological Sciences at Purdue University has set up a laboratory with multiple channels of communication, with the selection of channels largely left up to the learner. This places responsibility for learning on the student where, in our opinion, it should be placed if at all possible. The responsibility of the teacher is to provide the subject matter in forms most easily understood by learners and which can be communicated by as many different channels as possible.
Prof. Edgar Dale of The Ohio State University capsulized what we have in mind when he suggested "a kind of cafeteria of learning materials in a journalism learning laboratory."¹

Such a "cafeteria" would be a collection of self-service materials in a variety of forms: audio tapes, for remedial instruction and/or additional news writing practice exercises; additional mimeographed lessons for those who desire more programed practice; 8mm films which could graphically show words pushing their way into "correct" positions in news stories or incorrectly used words being squeezed out of the stories; actual interviews with news sources which have been taped and stored for student practice, and a library of marked newspapers which show the use of logical links, transitional devices, etc.

Such a "cafeteria of learning materials" would not replace the teacher in journalism education. He is a vital part of all but the smallest units of programed instruction. He is needed at critical times in the learning of news writing skills and knowledge. His primary value lies in judging or evaluating the work.

¹Letter from Prof. Edgar Dale, College of Education, The Ohio State University, Sept. 11, 1967.
of beginning news writers and in observing and recording
difficulties experienced by learners.

Some things in writing appear to be readily
learned by most students without the active participation
of the tutor; e.g., the placement of time elements in
leads; subject-verb construction of a lead, and mechani-
cal aspects of news writing. But some discriminations
are too difficult for most learners. Generally these
discriminations involve global news writing behavior—
the choice of facts which are to be used in the news
story, the location of these facts in the news story,
the organization of the story, and student evaluation
of the quality of the story once it's been written.

It is the tutor who must make such discriminations
during the beginning stages of learning complex news
writing skills. We believe that the teacher also is
needed to reassure beginning writers that they are
learning. As they progress, they should be encouraged
to substitute their judgment for the instructor's—
moving from a state of dependency to a state of in-
dependency.

6. At some point it should become possible to
establish a minimum acceptable standard of performance.
Initially we arbitrarily established a pooled judges'
rating of 18 as the minimum standard for global news writing ability after a semester of instruction.

Ten students--five in each group--failed to reach the minimum acceptable standard. We anticipate an improvement in the number of students who will be able to meet this minimum standard because of revisions being made in programmed instruction. In fact, we hope to raise the minimum standard to 21 for global news writing ability and to establish an editing test score of 120 as the minimum standard for mechanical news writing ability.

Such standards are necessary, we believe, if the long range effectiveness of a method of instruction is to be evaluated.

7. In Chapter II, we conceptualized a division between those who are in the process of acquiring the skills and knowledge of news writing and those who already have acquired such skills and knowledge. We designated the changeover between the two kinds of behavior as the level of mastery. At this level of behavior a writer no longer consciously applies the mechanics of writing in his global writing behavior. Also, the writer has reached the point where he can
evaluate his writing and, if necessary, correct it or restructure it.

Learners, as distinct from those who have mastered writing, are still confronted with the task of consciously applying the mechanics of news writing to their global writing. Also, they are generally unable to evaluate their writing and correct errors without the help of someone who serves as an evaluator.

Several comments made during the interviews illustrate the above concepts.

a. Student No. 14, who showed good gains in global writing ability, restructuring ability, and mechanical writing ability, said:

   The instructor is of great help. Even with the model in front of you, you can't always tell if you're right. . . . Without the instructor you wouldn't be able to tell if your story is just as good.

b. Professional Writer No. 2 said:

   When I write a story I never think of logical links. I just write. . . . I find that I've been using them more or less unconsciously.

c. Professional Writer No. 3 said:

   The logical links are very helpful. These are things that I notice now--things that I had taken for granted.
Although we may be able to conceptualize mastery of news writing—and such a conception does not mean static, unchanging writing behavior once the level of mastery has been attained—we do not know how to operationalize the concept.

Professional Writer No. 3, for example, had extremely high entering and terminal restructuring scores (82 and 88), as did student No. 27 (72 and 88) who received the highest post-inSTRUCTION ratings of global news writing ability among the non-professional news writers. However, student No. 8, whose news story received the second highest rating among the non-professionals, regressed in restructuring ability (68 to 36), while several other students, who had relatively high restructuring scores at the end of the semester, did not do too well in global news writing.

Something more is involved in mastery in addition to restructuring and editing test scores. Both of these tests are measures of a student's ability to make certain kinds of discriminations. In both cases the levels of discrimination are not directly apparent in a student's writing behavior. While there may be a relationship between the ability to make these discriminations and global writing behavior, yet it is
apparent that some students who are able to make finer discriminations have shown little or no progress in global news writing behavior.

What may be happening is this: a certain level of discriminatory power (as operationalized by editing and restructuring scores) must first be reached before a student's global writing ability becomes functional; that is, before he can progress in global writing behavior. Once writing ability is functionalized, something else must happen in writing behavior. Perhaps this something else is repeated trials of strength—the idea that thoughtful practice makes perfect. How much practice is an experimental variable.

Certainly some writers fall into a "self-taught" category. But even these writers probably studied "models" and reached the point where they could make the fine discriminations which led to the functionalization of writing ability and, through practice, the achievement of mastery.

Some writers, however, seem to show little progress in writing ability despite considerable practice. Our assumption is that such writers may be deficient in discriminatory power.

The point that is being made is this: some students
with relatively high discriminatory power, but who have shown little or no progress in global writing ability, may be ready for X amount of practice.

For example, this may be the case with student No. 2. She should, if we are correct in our supposition, show rapid progress in global writing behavior if given X amount of practice.

Another student, however, might not be ready to undergo repeated tests of strength (such as student No. 23). In her case, X amount of practice might result in little or no progress in global news writing ability.

Unless discriminatory powers can be raised to a high enough level, then practice itself probably will not bring about mastery of writing.

We might be able to test such a conception by means of the records we now have on the above students. If our assumption is correct, then students with relatively high restructuring and editing test scores should do well in future writing and editing courses. Students with relatively low discriminatory powers (as measured by the two instruments above), who do well in future writing and editing courses, can be re-tested to see what gains they've made in their ability to make discriminations.
Summary

In summary, we believe that we have demonstrated the feasibility of programmed instruction as a method of teaching basic news writing skills. Furthermore, because the method is systematic, variables can be detected which appear to be restricting the progress of some kinds of students. Steps can be taken to modify the program.

In the conventional classroom situation it is difficult to expose variables which may be restricting progress. When a student does poorly in this type of class, the student has difficulty knowing why this is so. So, too, does the instructor.

In programmed instruction, if a student does poorly on a section examination either the section has not been properly designed or the student—for a reason extrinsic to the program—is not interacting. At this point the student can be identified and stopped. He cannot proceed until the difficulty is overcome—either through a re-reading of the section material, remedial material, or through close personal contact with the tutor. To attempt such a procedure in a conventional classroom is virtually impossible if other students are not to be held back.
By and large, we want learners to continue in command of the course. We want them to accept the responsibility of meeting minimum standards of performance. How they reach these minimum levels of performance is their responsibility PROVIDED we have made it possible for them to do so. We believe that we are systematically making such achievements possible.

In the past we seem to have been reduced to the state of wringing our hands or shaking our heads when students who should have done well did poorly. Now, for the first time, a series of hypotheses has been generated which suggests ways to improve news writing ability.

The systematized approach that we have used can be adapted to any instructional situation at the level of higher education. Its basic requirements are design, development and testing of an instructional program; pre-instruction testing aimed at disclosing a student's entering behavior; post-instruction testing aimed at measuring changes in behavior, and program revisions and modifications based on accumulated data.

Admittedly there are many problems. Experimental controls are often impossible to impose, or to maintain once they've been imposed, when human be-
behavior is being studied. Motivation, boredom, and other hidden and extraneous variables act to confound any analysis of human behavior. Indeed, the nature of some of the questions and hypotheses generated by this study makes it abundantly clear that we have just begun to study the complexities of writing behavior.

For the first time, however, we believe that we have penetrated into the complexities of writing behavior even though we have barely scratched the surface.

In the past we seem to have only wrung our hands when students who should have done well did poorly. Now, through a systematized approach, ways are being suggested to improve the chances of success in news writing.

It is the system, with rather well-defined blocks of learning and test devices, which offers the hope of penetrating more deeply into the complexities of writing behavior and bringing about more desirable changes in writing behavior.
Appendix A

EDITING TEST

Section I

This is part of the editing test. You will be asked to indicate in each section what, if anything, is wrong with certain kinds of writing. There is no time limit for completing the test.

In this section draw a line through every unnecessary word or phrase in the following news stories. Make them as concise as possible. Do not delete words or phrases which are essential to the story or which would affect the clarity or continuity of the story. DO NOT SUBSTITUTE WORDS OR PHRASES. You can delete or add punctuation.

Example: The Downtown Lions Club will held-a-meeting-to elect new officers.

A raging fire completely destroyed a three-story warehouse today on the city of Huntington's West Side, causing total damage estimated at about $75,000, according to the Fire Chief John Gallagher.

No one was injured even slightly as the flames roared through the building that housed and was owned by the West Side Paint Co. at 1532 Ninth Ave.
A night watchman, who had been on duty throughout the night, discovered the fire on the third floor of the warehouse at 6:15 a.m. and hurriedly turned in the alarm. Firemen battled the stubborn flames at the scene for as long as three hours before bringing the blaze under control.

Chief Gallagher said a crowd of about 3,000 spectators, who were on hand to watch the fire, jammed sidewalks and streets in the vicinity of the blaze, hampering the movement of fire-fighting equipment to the scene of the conflagration.

The cause of the fire has not been determined yet.

Eliminate wordiness in the following story:

Three young girls were bruised and slightly injured this morning when a railroad train scraped the rear end of an automobile in which they were riding as passengers.

The minor mishap occurred in the 2200 block of Third Avenue as a large C&O switch engine shuttled boxcars along the spur line past the unguarded crossing.

The automobile, driven by George Montgomery, 46, of 2805 Eighth Ave., had just about almost cleared the railroad tracks when it was struck by the switch engine.
The three girls, riding as passengers in the automobile, suffered minor bruises, were treated at a hospital, and later released. They are listed as Gloria Peters, 7, of 2807 Eighth Ave.; Paula Smerz, 8, of 2815 Eighth Ave., and Montgomery's daughter, Anna, 7.

The damage to the car was estimated at $250 by investigating police officers. No arrests were made.

Eliminate wordiness in the following story:

Lions Club members have decided that they will sponsor a fund-raising campaign to purchase various books for the Cabell-Huntington Library.

The campaign goal is set at precisely $20,000, according to the Club President Jeffrey George.

Huntington businessmen will be contacted and asked to contribute, George said.

The drive will start on March 15 and will come to an end on March 31.

Section II

In this section, correctly punctuate the following news stories. DO NOT DELETE OR INSERT ANY WORDS OR PHRASES. ADD PUNCTUATION (INCLUDING APOSTROPHE AND QUOTATION MARKS) WHEREVER NECESSARY.
Three men arrested early this morning were charged with burglary of the Kroger Supermarket 2803 Fifth Ave.

They are Peter Snell 38 of 1801 Fifth Ave. George Lawton 26 of 1803 Fifth Ave and Jeffrey Chandler 22 of 1907 Fourth Ave

*They were arrested in the Kroger store while attempting to burglarize the safe said Gil Kleinknecht Huntington police chief.

*Asked how much cash was in the safe Chief Kleinknecht replied About $1500

The accused men all with past criminal records were arraigned this morning before Justice of the Peace Jack Robbins who set bail at $5000 each and bound them over to the Cabell County grand jury.

*We're innocent said Snell after his arraignment.

*We were passing the supermarket on our way to work heard noises in the store and saw an open door. We went in to investigate. We thought we were being good citizens That's the thanks we get.

The arrest of the trio brings this year's burglary suspect total to 123 according to Chief Kleinknecht the largest number in the city's history in a single year.

*It's a record we're not proud of Chief Kleinknecht said. *It does show however that our officers are out
patrolling helping to make Huntington a safer place in which to live. We intend to keep it that way.

Police Department records show the following arrests this year: 33 on charges of homicide, 16 on charges of manslaughter, 123 on charges of burglary, and 239 on various charges of larceny and theft.

"This represents an increase of 50 per cent over the past year," Chief Kleinknecht said. "And the years not over yet.

A masters degree in mathematics will be offered for the first time next fall according to Dr Thomas Bauserman, chairman of the Mathematics Department.

The company's first task is to recruit a labor force of 1000 workers only then can it begin production, said Samuel Peters, secretary treasurer of the firm.

Saturday's game was hotly contested by Marshall and Morris Harvey cagers. Resulted in a 71-71 deadlock at the end of regulation play however overtime action saw the Thundering Herd come out on top 76-74.

"Ah sweet victory exclaimed Coach Ellis Johnson.
the Herd mentor for the past two years as he flashed a 
V for victory sign with his fingers.

Coach Johnsons job as he described it is one of 
recruiting.

"Recruitings our first task as I see it getting 
the boys who have demonstrated that theyre the ones 
who can do the job. Then well work with these guys 
coach them on the finer points of the game until they 
can play with their eyes shut.

Section III

Can you spot errors in writing? Let's find 
out! Circle any errors you detect and, in the space 
below each written passage, tell what the error(s) 
is (are).

Example: The four students--John Smith, Peter 
Jones, and Willard Rogers--found accomodations in the 
hotel near the seashore.

Only three students named.

Accommodation misspelled.

The Civic League Association directed it's 
oficers to make a final report June 31.

Sigma Kappa Sorority will sponsor a dance next
Saturday. They also decided to conduct a fund raising campaign.

Guerilla forces hit the Americans in the rear and quickly withdrew back into the jungle.

The redness of the flames cast eerie shadows on the wall.

Whose going to make the choice?

If you wish to illicit more information, you must contact U.S. Army headquarters.

These are the people which will represent our nation at the Conference.

We who are about to die, salute you.

We are not conscious of our mistakes. Are you?
The group of officers were led to the platform where the ceremony was conducted.

The hurricane, with winds up to 25 miles an hour, buffeted the small fishing village.

Aggressor action demobilized an Allied column of tanks which were moving toward Berlin.

The capital city of West Virginia is Charleston.

The captain was chosen by team members before the game began. He lead them on the floor.

The affect of the assassination was disorganization among the army's high command.

There are only 300 combat-ready infantrymen. Their objective is a fort in the Ardennes sector, but their so understrength that its questionable if they can carry out the mission.

The orders were recieved. They were implicit.
The golden dome of the capital building glistened in the sunlight.

The women which were selected for the honor were members of the Federated Clubs of Huntington.

Three persons were killed in the two-car collision which occurred at the intersection of Fifth Avenue and Eighth Street.

No one knew who's house had been looted—not until police came to the meeting room and told Jack that his home had been desecrated.

Below are headlines which appeared over stories in newspapers. You are to indicate, by checking, if the headline is clear in its meaning.

Example: County Judges Master Plan

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10. Conference Rules Change Next Year

Clear

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Appendix B

SECTION I--WRITING THE NEWSPAPER LEAD

Introduction

Writing is an art, not a science. There are many good ways to write, just as there are many poor ways, as judged by persons expert in this skill.

The purpose of the instruction you are about to receive is to help you teach yourself how to write for newspapers. To do this you must learn by example and learn by doing. Don't be discouraged if your first attempts do not succeed. Through repetition, and with guidance, you can achieve professional competence. So stick with it. Persevere.

1. Local News

Before you try to write a news story, you should know what news is. Unfortunately, there are countless definitions. You've probably heard the old saying that if a dog bites a man, that's not news; but if a man bites a dog, then it's news. Certainly oddity does make news. But there are many other factors which help constitute news.

The city editor of a newspaper, or his assistant(s),
is a big factor in the ultimate determination of what constitutes local news. He is the person in the newsroom who is in charge of the reporters. He assigns stories to reporters, has them rewrite information that he or someone else (perhaps even another reporter) has provided, and sends reporters out to cover various events, such as accidents, meetings, strikes, etc. He holds the position of city editor by virtue of his newspaper experience and because of his ability to judge whether something is or is not newsworthy.

After you've gained sufficient experience you'll know the ingredients of a good story.

Some of these ingredients are:

1. Number of people in your newspaper's circulation area who are concerned or involved. For example, the disruption of natural gas service may affect many homes. The number of homes affected helps to determine how big the story is.

   As cost of living increases, all newspaper readers are concerned and affected; hence, such increases are news.

   You can think of similar examples which would be news, even big news, in a newspaper circulation area.

List some of them now:

1. ____________________________

2. ____________________________
Your list may include some of the following: A snowstorm which disrupts services; repairs on a highway bridge which would inconvenience motorists; a rainstorm which floods viaducts and streets, knocks down power lines; changes in Selective Service regulations which would affect young men in your newspaper area; increases or decreases in tax rates, etc.

2. Proximity is another determinate of news; that is, just how close to your community did a news event occur.

To use our previous examples of what constitutes news, suppose that the disruption of natural gas service occurred in a community hundreds of miles away from your newspaper's circulation area. This story would not be printed in your newspaper unless there were some other angles which would interest your readers.

3. Some of the possible angles might be the drama, pathos, human interest, or oddity of the event.

Drama—a "hero" who races from house to house to warn sleeping inhabitants of the danger of escaping gas from a broken main line.

Pathos—people freezing in sub-zero temperatures
because of the disruption of service, unable to cook
meals, etc.

Human interest—ingenious ways people devised
to "heat" their homes and to cook their meals during
the prolonged service break.

Oddity—a runaway tractor was responsible for
breaking the main.

You will look for these same angles in stories
that you'll be reporting.

The sources of these stories will vary. They
will include the local police station, sheriff's office,
state highway patrol, and perhaps a federal law enforce-
ment agency (such as the Federal Bureau of Investigation,
a U.S. marshal, or the Alcohol and Tobacco Tax Division—
the so-called "revenooers" who wage war against
"moonshiners").

Other sources will include city, county and state
school boards, city hall, the county courthouse, various
courts (city, county, state and federal), the federal
building, business and industry (especially the chamber
of commerce, real estate boards, downtown improvement
groups, etc.).

If your newspaper extends into a large farming
region, then the weatherman, the county extension agent,
4-H club agent, home demonstration agent, and the U.S. Department of Agriculture will be important sources of news. Even if your newspaper primarily serves urban centers, city dwellers will be interested in the weather, farm prices, etc.

If your newspaper is located in or near major waterways, in specialized industrial or mining areas, in a region largely supported by tourism, then people and events associated with such special-interest activities will be closely watched for possible news stories.

**REVIEW**

(Fill in the blanks with the best answer. Try and do this from memory. If you can't, then look for the answers at the end of the review section.)

1. More than anyone else in the newsroom, the _______ _______ probably determines what local news will get into the newspaper.

2. List three elements, or ingredients, which may determine whether an event or activity is news:

   ___________________ ___________________ ___________________

3. List two possible sources of news:

   ___________________ ___________________

**ANSWERS:** 1. City editor. 2. Number of people involved or concerned, proximity, drama, pathos, human
interest, oddity, or the city editor. 3. City, county, state, and federal law enforcement agencies; city, county, state, and federal buildings (e.g., city hall, county courthouse, state capitol, etc.); city, county, state and federal courts, and special-interest areas (farming, business-industry, tourism, etc.).

2. Reporters

You now have a general idea of what constitutes news, even if you do not have a precise definition of news. In fact, no definition will be completely satisfactory. Instead of beating a dead horse, let's turn to what will be one of the most exciting— and trying— moments in your life: your first job on a newspaper.

More than likely you will be employed as a reporter. A reporter is a person who gathers news in one of several ways and then writes it (hopefully, sighs the city editor, in the right way).

You will be either a general assignment reporter or a beat reporter. On a smaller newspaper (one with only a few thousand newspapers sold each day), there may not be a division of labor among reporters. On metropolitan-sized ones (50,000 or more circulation) there will be a division of labor.
1. **General assignment** reporters will be those who receive daily assignments from the city editor and/or his assistant(s).

   As a **general assignment** reporter, you may, on any given day, do rewrites of publicity releases mailed to your newspaper from various sources, obituaries (telephoned to the newsroom by undertakers), cover a meeting of the Young Democrats or Young Republicans, telephone a variety of potential news sources, or be assigned to cover a flower show. If you happen to be the one assigned to cover the flower show, don't be like the young reporter who returned to the newsroom and reported to the city editor that there was no story.

   "Why not?" asked the city editor.

   "The place burned down," said the reporter.

   As you can see, the **general assignment** reporter may be called upon to do quite a few different things on any given day. If he proves himself, he will start to draw better assignments, like covering important meetings and conventions, interviewing prominent persons, or being sent out on dramatic "breaking" stories (plane crashes, fires, crimes, disasters) to assist reporters normally covering police or fire beats.

2. **Beat** reporters are those usually assigned to
cover certain productive sources of news, such as the city hall, courthouse, police and fire departments, federal building, central school offices, etc.

The word beat does not mean tired, worn or pooped out when applied to beat reporters. Rather, it means, like the policeman who used to walk a beat, visiting certain offices, agencies, etc., in an assigned area, such as those in the city hall.

A city hall beat reporter, for example, would daily visit the mayor's office or city manager's office, city clerk, departments of streets, sanitation, water, engineering, and others. He must not only report the daily flow of news, but he also must make good contacts—persons in the city administration who will keep him informed of up-coming events or tip him off to a story that a routine check failed to turn up.

Obviously the more experienced reporters will usually draw the better news-producing beats.

There is another kind of reporter who, for want of a better name, can be called a specialist.

3. The specialists generally will be found on large metropolitan newspapers. They are reporters who specialize in the reporting of medical, aerospace, science, education, or military activities to mention a few. Such
reporters will have acquired an extensive knowledge in a specialized area through long experience in reporting that kind of news and/or through formal education.

Your journalistic talents, however, will be limited at first by lack of experience. Therefore, your first job probably will be as a general assignment reporter, rather than as a _____ reporter or as a ________. After you've served an initial period as a general assignment reporter, you may become a beat reporter. Eventually, depending upon your interest, training and knowledge, you may work into specialist assignments.

But before you can become a reporter of any kind, you must learn how to gather information and write it in acceptable form and style. Let's first learn some general things about news writing.

3. News Writing

Newspaper writing, unlike most other kinds of writing, is probably easiest to learn because it can be structured, or organized, in a very definite way. Journalists call such structure the inverted pyramid style of writing.

What do we mean by the inverted pyramid style of writing? Simply that the most important facts are given
at the beginning of a story and that the least important facts are relegated to a place near the end of the story.

There are two sound reasons for writing in the inverted pyramid style for newspapers:

1. News stories, once they've been cast into type, may have to be cut to fit into a "hole" or space when a newspaper page is being made up in the composing room. Should this be necessary, the story can be cut from the bottom if it was written in the inverted pyramid style.

Read the following story and decide what could be cut without doing much damage to the story:

POINT PLEASANT--The annual Christmas party for children of Goodyear employees will be held from noon to 3 p.m. Dec. 10 at the National Guard Armory near here.

The party location has been changed due to an increase of personnel at the plant.

The armory is located north of here on Route 62.

If necessary the last two paragraphs could be cut because the most important facts are in the first paragraph.

2. The inverted pyramid style of writing, in addition to allowing cuts from the bottom of the story,
also provides the essence of the story in the first para-
graph or two. This saves time for readers who do not
have much time, but who wish to scan the newspaper to
get the gist of the day's news—much as viewers watch
TV newscasts. They literally skim off the top of the
news.

The Lead

The first paragraph of a news story is called
the lead. You pronounce lead the same as you would
say: "You can lead a horse to water..."

To write a lead, you must first know the im-
portant elements of most stories. These elements are
known as the who, what, where, when, why, and how. They
are often referred to as the 5 W's and H. Sometimes,
but not always, the lead will answer the 5 W's and H.

Let's give you an example of what we mean:

Who--John Jones, 35, a Democrat in Huntington.
What--elected county commissioner.
Where--Cabell County.
When--today.
Why--received 2,450 votes to his opponent's 1,822
votes.

How--same as why, or understood.

If we were writing this story for the morning,
or AM, newspaper (the one that will appear in the morning following the election, our lead could answer the 5 W's and H if we wrote:

Democratic candidate John Jones, 35, of Huntington, was elected Cabell County commissioner yesterday by a margin of 628 votes.

This, then, could be the lead of a story about the county commission election. We could proceed to "flesh out" the bare bones of the lead by adding more information—remembering that the next most important facts or fact would become the second paragraph, and so on through to the least important information which would go into the last graph. But you'll need more guidance before attempting to write your first lead.

Length of Lead

As a rule of thumb, your lead shouldn't be longer than 30 words. Why? Because readability studies, such as those conducted by Rudolf Flesch (The Art of Plain Talk and The Art of Plain Writing), show a relationship between the number of words in a sentence or paragraph and reading difficulty. Generally, comprehension becomes more difficult as the number of words in a sentence increases.

Let's illustrate what we mean.

1. A simple sentence needs only a subject and a
verb, such as: John Jones died. The subject is John Jones, and the verb is died. This sentence provides quite a bit of information (answering the what and part of the who).

2. We can add a good deal more information and complete the lead of our story:

John Jones, 35-year-old Cabell County commissioner, died today in St. Mary's Hospital of a cerebral hemorrhage.

We've now answered the 5 W's and H and our sentence word count is 18.

3. We could proceed to cram more information into this lead until it became difficult to comprehend it:

John Jones, 35-year-old Cabell County commissioner for the past two years who lived at 3314 Ninth Ave., died at 3:15 p.m. today in the intensive care ward at St. Mary's Hospital where he had been admitted three days ago suffering from what was thought to be a heart attack, although death was caused by a cerebral hemorrhage, a hospital spokesman said.

This lead has 63 words. The reader must really work to absorb all of the information—assuming for the moment that he made his way through the labyrinth of words and phrases.

It is not mandatory, however, that every lead be limited to 30 words or less. On occasion you will write one that is longer than 30 words. You also will have occasion to write some very short leads.
Here are some examples of short leads:

1. President Franklin D. Roosevelt died today.
   (Who) (What) (When)
2. President John F. Kennedy was assassinated today.
   (Who) (What)
3. World War II officially ended at 3:15 p.m. today.
   (What) (When)

Let's take the following facts and write a short lead:

The mayor of our city (Huntington) is John Jones. He's been in office four years. He is well known. He's 48 years old and lives at 3122 Crestmont Drive. He resigned from office today. Why? Because of poor health, he said. What's he going to do now? He's going to take a vacation and when he returns he's going to devote more time to his business, Jones' Pharmacy, 312 Eighth Ave.

We could add more facts to "flesh out" the bare bones of the story, such as the procedure for replacing the mayor, etc. But let's concentrate on writing a short lead that tells the most important news about Mayor John Jones. Such a lead could be . . . . You complete the unfinished lead:

Mayor John Jones
(Who) (What) (When)

Did you write it this way:

Mayor John Jones resigned today.

If you did, you've just written your first news-
paper lead. If not, don't be discouraged because you'll have many opportunities to try your hand at starting the story.

Let's look again at the facts in the mayor's story. Suppose there were quite a few mayors in your newspaper's circulation area. If so, you could quickly clarify which mayor resigned by writing:

Huntington Mayor John Jones resigned today.
(Who) (What) (When)

Again, if you will re-read the facts about the mayor, you'll see that one big question is unanswered by the lead. Which one? Well, you've already answered the who, what and when. And when you added Huntington part of the where was answered. That leaves the why and how. Of these two, the big question in the reader's mind would be _____.

If you were on your toes you wrote why in the blank space.

Can we get the important why into the lead without much difficulty? Certainly. But first you must be sure of the why--because accuracy is crucial when it comes to reporting. The mayor said he resigned because of poor health.

Therefore, your short lead can be expanded by four words.
In the space provided below, write the expanded lead:

(Who) ______________________ (What) ______________________

(When) ______________________ (Why) ______________________

Does your lead look like this:

Huntington Mayor John Jones resigned today because of poor health.

If it does, then you're making rapid progress in learning how to write leads. Now count the number of words in your lead. Are there 10 words? Can the lead be longer? _______. Must it be? _______.

(Yes or no) (Yes or no)

You should have answered yes to the first question and no to the second. Look again at the facts and ask yourself which additional fact (or facts) the reader would most like to know at the very beginning of the story? There are several that might be of interest.

Mayor Jones is 48 years old. He's been mayor for four years. He's planning to take a vacation and then return to his business. Can you work these additional facts into your lead. Try it! Here's a start:

John Jones, 48, Huntington's mayor for the past four years, ________________________________.
He plans ________________________________.
After you've completed the lead, compare it with this one:

John Jones, 48, Huntington's mayor for the past four years, resigned today because of poor health. He plans to take a vacation and then return to his business.

This new lead consists of 28 words in two sentences. There's nothing wrong with having two sentences in your lead. Just don't overdo it. If the lead naturally breaks into two complete thoughts, it can be written as two sentences. Otherwise, keep it to one sentence.

The What Lead

In most of the examples used so far, the who element has been extremely important—and we've used this element to start the lead. But the what element might be of key importance in a lead. For example:

A tobacco warehouse on Huntington's east side was destroyed by fire today with damage estimated at $75,000.

Analyzing this lead, we find:

What--tobacco warehouse destroyed.

When--today.

Where--Huntington's east side.

How--fire.

Who--This element is not important. It would be important if there were injuries and/or deaths, or if an arsonist caused the fire. Then the lead probably
would emphasize the who element. It might begin:

Three persons were injured today in a fire that destroyed a tobacco warehouse on Huntington's east side, causing damage estimated at $75,000.

OR

An arsonist is believed to have started a fire today that injured three persons and destroyed a tobacco warehouse on Huntington's east side, causing damage estimated at $75,000.

Why—This would not be an important element in the above story unless some unusual circumstance accounted for the fire (such as violations of fire safety regulations), or accounted for the fire spreading rapidly (wind, tinderbox construction, etc.).

You've seen that the who or what (usually both) can be emphasized in the lead. But emphasis can be given to the when, where, how or why elements. Here is an example of each:

When

There are only three more shopping days until Christmas.

Where

Berne, Switzerland, has been chosen as the site for the 58th annual International Red Cross meeting Nov. 12-17.

How

Patching his punctured rubber life preserver with bubble gum, a 12-year-old boy made it safely to shore today after a harrowing three hours in choppy Lake Michigan.
A soldier who left a note saying he was "sick of war" took his own life today in a remote village in South Viet Nam.

REVIEW

You now have some idea of what a lead is and what kinds of elements might be stressed in a lead. The lead will answer most, if not all, of the questions which are known as the 5 W's and the H. The 5 W's and the H are the who, what, when, where, why and how questions.

You know that a lead generally consists of 30 words or less.

You also know that the simplest lead that can be written consists of a subject-verb combination, such as:

President Franklin D. Roosevelt died

Subject Verb
(Who) (What)

But newspaper readers would want to have at least three important facts as soon as possible in addition to the who and what in the above lead. They would want to know where, when and how. To answer these questions, we can recast the above lead: President Franklin D. Roosevelt
died today of a stroke at Warm Springs, Ga. (What) (When) (How) (Where)

You have already noticed that the who and what are often the subjects of leads. In the above example, Franklin D. Roosevelt is the subject (in this case answering the who). Often the subject will answer the what. Examples of what subject-verb constructions are:

1. **A three-alarm fire** destroyed . . .
   
   **Subject** Verb

   **NOTE:** The subject-verb combine to answer the what.

2. **Two automobiles** collided . . .
   
   **Subject** Verb

3. **A sailboat** capsized . . .
   
   **Subject** Verb

4. **The passenger liner Queen Mary** left . . .

   The subject-verb construction may answer the who-what questions. The pattern of such a lead might look like this:

   Subject (Who)           Verb (What)

   (When)                  (Why or How) (Where)

   Translated into a news lead, the above pattern might look like this:

   **John Smith, 22, of 3214 Fifth Ave.,** was arrested **today on a charge of burglarizing a downtown department store.**
A what pattern (that is, a lead which begins with, or emphasizes, the what element) includes the subject-verb:

A two-car collision injured three persons early this morning in downtown Huntington.

EXERCISES

On a separate sheet of paper write a lead based on these facts obtained from city police:

John Jones, 48, of 812 Ninth Ave. He was arrested on a charge of first-degree murder. Arrested last night. He's accused in the shotgun-slaying of a 25-year-old man.

Before you write the lead, break the facts into the who, what, when, why components:

Who--John Jones, 48, of 812 Ninth Ave.

What--was arrested on a charge of first-degree murder.

When--last night.

Why--in the shotgun-slaying of a 25-year-old man.

Now put the components together and write your lead. When you've finished, compare it with the "model" lead below.

Did you write your lead in the following way:

John Jones, 48, of 812 Ninth Ave., was arrested on a charge of first-degree murder last night in the shotgun-slaying of a 25-year-old man.
If you did, you made one mistake. The when element is misplaced in the above lead. Logically, the when element belongs where in the lead? Yes, after the verb. Our lead now should read like this:

John Jones, 48, of 812 Ninth Ave., was arrested last night on a charge of first-degree murder in the shotgun-slaying of a 25-year-old man.

We'll have more to say about the placement of the when element, but let's first proceed with more writing exercises. Write leads with who beginnings on the following:

1. John S. Simpson, a high school principal for the past 15 years. He was appointed Cabell County school superintendent. Action took place last night at a meeting of the county school board.

Your lead:

______________________________  
(Wo)  
______________________________  
(What) ______________________ (When)  
______________________________  
(Where)

This lead could have been written:

John S. Simpson, a high school principal for the past 15 years, was appointed Cabell County school superintendent last night at a meeting of the county school board.

2. Peter S. Smith, 21-year-old senior from Chicago. He was elected vice president of the student body. This was at the University of Illinois. Voting took place yesterday.
The lead could have been written:

Peter S. Smith, 21-year-old senior from Chicago, was elected student body vice president yesterday at the University of Illinois.


This lead could have been written:

Mark Goodrich, 23, of 918 S. 20th Ave., was killed last night when struck by an automobile while crossing a downtown street.

4. John Jones, president of Allstrand Chemical Corp. He'll speak to the Kiwanis Club. At noon tomorrow. Club meets monthly in the Preswick Hotel. A noon luncheon meeting. Topic of Jones' talk: "How to Win and Still Be Honest."
There are several ways of writing a lead from the above facts. One way:

John Jones, president of Allstrand Chemical Corp., will speak at noon tomorrow at the Kiwanis Club's monthly meeting in the Preswick Hotel.

You might have written a lead that begins with a different who element. If not, write a lead that starts with the Kiwanis Club members instead of John Jones.

\[(\text{Who})\] (What)

\[(\text{What})\]

\[(\text{What})\] (When)

This lead could read:

Kiwanis Club members will hear John Jones, president of Allstrand Chemical Corp., discuss "How to Win and Still Be Honest" at a noon luncheon tomorrow.

If you wished to add the where element, it could best be placed at the \underline{\text{(beginning, middle, end)}} of the lead?

If you're not sure, read the lead aloud and try placing the phrase "at the Preswick Hotel" at the beginning, middle, or end of the lead. The phrase "reads" better at the end of the lead. True, you could place it at the beginning of the lead:

At the Preswick Hotel, Kiwanis Club members will hear . . . .
If you wrote the lead in that way, however, you'd be **backing into the lead**. By **backing into the lead**, we mean that the most important fact(s) has not been presented quickly enough; that is, in the first few words of the lead. Here are some examples of **backing into the lead**:

1. Beginning at noon tomorrow water will be shut off in the Monel Park residential area to permit repairs to a water main.

   The lead reads better:

   Water will be shut off in the Monel Park residential area beginning at noon tomorrow to permit water main repairs.

   OR

   Monel Park residents will be without water beginning at noon tomorrow while water main repairs are being made.

2. At a meeting of the Lions Club yesterday, three new officers were elected.

   This lead would read better: (Write the lead)

   You should have written the lead like this:

   Three new officers were elected yesterday at a meeting of the Lions Club.

   OR

   Three officers were elected yesterday by the Lions Club.

3. Speaking before an audience of 500 persons
last night, Prof. John Jones of Preston University called for a negotiated settlement of the Viet Nam war "as the only way out for the United States."

Not only are we backing into the lead, but here is an example of wordiness. Eliminate the "backing in" phrase entirely with the exception of the time element (the when), which should be moved to a "logical" position in the lead:

Prof. John Jones of Preston University called last night for a negotiated settlement of the Viet Nam war "as the only way out for the United States."

Your lead should be similar to this one:

The second paragraph of this news story could include the where element and the number of persons who heard the professor.

Time Element in Leads

If you were "on your toes" in writing the above lead, you correctly placed the time element and noticed two things about which you've received no instruction. First, you noticed that the who, what, when sequence had to be interrupted if you were to properly place the time element (the when). In doing so, the sequence became who, what, when, what. In other words, the what element
was split by the insertion of the *when* element immediately after the verb. Second, you noticed that the punctuation at the end of the lead was inside the closing quote marks. We'll take a closer look at punctuation and quotation marks, but for the moment let's return to the placement of time elements.

Could we, in the above lead, have placed the time element—*last night*—anywhere else without doing damage to the logical order or pattern of the lead? Let's find out! There are five places where the time element could have been placed (logically or illogically):

1. Prof. John Jones of Preston University called *last night* for a negotiated settlement of the Viet Nam war "as the only way out for the United States."

2. Prof. John Jones of Preston University *last night* called for a negotiated settlement of the Viet Nam war "as the only way out for the United States."

3. Prof. John Jones of Preston University called for a negotiated settlement *last night* of the Viet Nam war "as the only way out for the United States."

4. Prof. John Jones of Preston University called for a negotiated settlement of the Viet Nam war *last night* "as the only way out for the United States."

5. Prof. John Jones of Preston University called for a negotiated settlement of the Viet Nam war "as the only way out for the United States" *last night*.

There is another possibility. *Last night* could be placed at the beginning of the lead, but we'd reject this because of the-_______ into the lead.
Now you're ready to take another big step. Is the time element logically located in the above leads:

1. Yes or No  2. Yes or No  3. Yes or No  4. Yes or No

If you correctly answered the questions, you should be able to state a general rule regarding the time element and its position in relation to the verb. The general rule is: the time element (when) is generally located next to the verb—one side or the other.

Now for the answers and, more importantly, the reasons for the answers:

1. Yes. **When** did he **call** for the negotiated settlement? Last night.

2. Yes. But it's a little more difficult to read the lead with the time element before the verb.

3. No! Sounds like he wanted the settlement last night. Illogical to call for something that had already occurred.

4. No! Sounds like the war took place last night.

5. No! Makes no sense. Dangles.

You'll have some practice in locating time elements in leads, but let's now examine the positioning of punctuation marks in relation to quotation marks.
You already have noticed that the period in the above leads went inside the closing quotation marks; therefore, the general rule is: **punctuation generally goes inside the closing quotation marks.** REMEMBER, however, that there are exceptions to any general rule.

Let's see how well you can punctuate in relation to closing quotation marks:

1. "Will there be peace in our time" President Johnson was asked.

2. "There will be peace in our time" President Johnson replied.

3. He asked, "When did you arrive"

4. "Halt" shouted the captain.

5. "I will go to the meeting" he said, "even though it will be a waste of time"

6. "Why did you use the word 'stop'" the teacher asked.

**SCORE YOURSELF:** 1. ? 2. , 3. ? 4. !
 or," 5. ," and.
 or." 6. ?

If you incorrectly punctuated one or more of the above exercises then read pages 151-157 in Harbrace College Handbook (5th ed.) by John C. Hodges and Mary E. Whitten (Harcourt, Brace & World, Inc., New York, 1962). A copy is in the classroom. Ask for it.
EXERCISES

Not only will these be exercises in the logical placement of time elements, but you'll also be expected to utilize all of the knowledge you've gained thus far to properly write leads. In some of the exercises you will not be able to use all of the given facts in your lead. You will have to choose the most important facts. After completing the exercises, look at "model" leads which are provided.

ON A SEPARATE SHEET OF PAPER WRITE LEADS BASED ON THE FOLLOWING FACTS:

1. Three men. All from Huntington. They were arrested. All arrested this morning. Arrested on charges of grand larceny. In the theft of a mink stole. Value of stole placed at $800.


3. John Jones. He's a Huntington senior. He was elected student body president at Marshall University. Election took place yesterday. Jones polled 2,168 votes to his nearest rival's 1,968 votes. That's a margin of 1,000 votes.

4. The East Side Kiwanis Club. It's going to meet at noon tomorrow. Members to hear talk by John Gravely. He's president of U.S. Steel Corp. Gravely is going to discuss "Facts and Fantasy in Our Economy." This is a noon luncheon in the Preswick Hotel.

Before attempting to write this lead, you must decide if John Gravely, the title of his talk, or the
East Side Kiwanis Club meeting is most important from the standpoint of beginning the lead. When you've made this decision, then write the lead.

5. John Estler. He was mayor of Huntington from 1924-30. Died in City Hospital. Died after a long illness. Died yesterday. Cause of death not known yet. Estler was 72 years old at time of death.

6. Veterans Club. This club is organized for students at Marshall University who are veterans of the armed forces. It's going to meet at 3 p.m. tomorrow. It'll elect officers for 1967-68. Club will meet in Science Hall auditorium.

7. President Johnson. He's going to recommend a personal income tax hike. Tax hike will amount to five per cent. He'll do this in his State of the Union address. This address will be given Jan. 13. He'll give State of the Union address to Congress on that date.

WHEN YOU'VE COMPLETED THESE EXERCISES COMPARE YOUR LEADS WITH THE "MODELS" BELOW:

1. Three Huntington men were arrested this morning on charges of grand larceny in the theft of a mink stole valued at $800.

OR

Three Huntington men were arrested this morning and charged with grand larceny in the theft of a mink stole valued at $800.

2. A three-alarm fire last night destroyed a two-story warehouse on Huntington's east side, causing damage estimated at $25,000.

OR

A three-alarm fire last night destroyed a two-story warehouse on the east side of Huntington. Damage to the warehouse, owned by J. C. Peters & Sons, wholesale grocers, was estimated at $25,000.

3. John Jones, a Huntington senior, was elected
student body president yesterday at Marshall University by a 1,000-vote margin.

OR

Huntington Senior John Jones yesterday was elected student body president at Marshall University by a 1,000-vote margin.

4. John Gravely, president of U.S. Steel Corp., will speak tomorrow on "Facts and Fantasy in Our Economy" at an East Side Kiwanis Club noon luncheon in the Preswick Hotel.

OR

East Side Kiwanis Club will hear John Gravely, president of U.S. Steel Corp., discuss "Facts and Fantasy in Our Economy" at a noon luncheon tomorrow.

(While the above lead is passable, the most important facts--Gravely and who he is--are positioned too far into the lead.)

5. John Estler, 72, mayor of Huntington from 1924-1930, died yesterday in City Hospital after a long illness.

OR

John Estler, Huntington mayor from 1924-1930, died yesterday in City Hospital after a long illness. He was 72 years old.

6. Veterans Club at Marshall University will elect officers at a meeting in Science Hall auditorium at 3 p.m. tomorrow.

7. President Johnson will ask for a five per cent hike (boost, increase, etc.) in personal income tax when he delivers his State of the Union address to Congress on Jan. 13.

OR

A five per cent hike (increase, boost, jump, etc.)
in personal income tax will be asked (recommended, urged, sought, etc.) Jan. 13 when President Johnson delivers his State of the Union address to Congress.

YOUR INSTRUCTOR WILL CHECK THE LEADS YOU HAVE WRITTEN. IF HE IS SATISFIED THAT YOU HAVE UNDERSTOOD THE MATERIAL ON WRITING LEADS, HE WILL RECOMMEND THAT YOU TAKE THE SECTION I EXAMINATION. IF HE IS NOT SATISFIED THAT YOU UNDERSTAND HOW TO WRITE LEADS, HE WILL EITHER SUGGEST THAT YOU RE-READ CERTAIN PORTIONS OF THE MATERIAL OR DIRECT YOU TO REMEDIAL MATERIALS.

BEFORE YOU TAKE THE TEST, HOWEVER, YOU WILL BE GIVEN NEWSPAPER STORIES WITH MARKED LEADS. YOU WILL BE ASKED TO JUDGE THESE LEADS. WHEN YOU REACH THIS POINT, ASK FOR THE MARKED NEWSPAPERS.
Appendix C

SECTION II--WRITING NEWS STORIES

Introduction

You know how to write a lead. What you have learned can be applied to any news story. Always remember to pick out the most important fact (or facts) and use it in your lead.

Inverted Pyramid Writing

You already know that news stories generally are written in the inverted pyramid form. What does this mean? It means that the most important facts come first while the least important facts are placed toward the end of the story.

Each reporter must make a series of decisions as he writes a story. His first decision concerns which facts should go into the lead. Once he has made this decision, he then must decide which facts will go into the second paragraph, and so on to the last paragraph.

Sometimes the city editor will tell the reporter how long the story should be. He may say, "Keep it short," perhaps two or three paragraphs; or he may
Suppose that you had gathered the following facts from a Downtown Kiwanis Club officer:

Four officers were elected today. They are John Jones, president; Peter Smith, vice president; Dale Minor, secretary, and Lindsay Mudd, treasurer. Out-going officers are: George Noble, president; Paul Dudley, vice president; Tim Adkins, secretary, and Minton Hoover, treasurer. New officers elected by Downtown Kiwanis Club at noon meeting. Speaker at meeting was Charles Kincaid, vice president and general manager of Reston Coal Co. at Bluefield, W. Va. Subject of Kincaid's talk was "How the Coal Industry Helps You." The Kiwanians also announced their "Outstanding Young Man of the Year." He's Dr. Robert Kelly, 32-year-old Huntington physician. Reason he was selected is the free medical service he's provided to underprivileged children. During the past year he's treated more than 500 children at his own expense. Dr. Kelly is a general practitioner who graduated from West Virginia University School of Medicine in 1964. He interned at St. Mary's Hospital in Huntington in 1965 and began his practice the following year. He's married. Wife's name is Ramona. Three children. He lives at 1214 Tenth Ave.

You are going to help write a six-paragraph story based on the above facts.

First, decide what should go into the lead. What fact or facts should go into the lead because of its or their importance? Once you've made your choice, write your selection in the blank space: ________________

______________________________

Let's see if we agree. The most important facts are that the Downtown Kiwanis Club announced its Out-
standing Young Man of the Year and, possibly, the election of officers. When did it do this? Today.

What about the speaker at the luncheon? From the information we've collected it doesn't appear that the talk is very newsworthy. Also, our newspaper probably published an advance story; that is, a story published prior to the meeting which told who the speaker would be and what the subject of his talk would be. Therefore we could briefly mention the speaker's name somewhere in our story—but not in the lead.

The next question we should answer: should we attempt to get the names of the physician and the new officers in the lead? Let's let you decide based on what such a lead would look like:

Downtown Kiwanis Club today selected Dr. Robert Kelly, 32-year-old Huntington physician, as its "Outstanding Young Man of the Year" and elected the following officers—John Jones, president; Peter Smith, vice president; Dale Minor, secretary, and Lindsay Mudd, treasurer.

What's wrong with this lead? You're right! It's too long. It has 41 words. But by eliminating the names in the lead we would have the most important facts in the first paragraph (except for the names). This, in effect, would give us a combination lead (a lead that has two or more different, but important, facts in the first paragraph.
Downtown Kiwanis Club today announced its "Outstanding Young Man of the Year" and elected officers.

A combination lead is a useful device when there are several equally important facts. You might, however, decide to concentrate your lead on the physician, in which your second paragraph might be used to note the election of officers. For example:

Dr. Robert Kelly, 32-year-old Huntington physician, is the Downtown Kiwanis Club's "Outstanding Young Man of the Year."

Club members, at their noon meeting today, also elected officers: John Jones, president; Peter Smith, vice president; Dale Minor, secretary, and Lindsay Mudd, treasurer.

What would your third paragraph include? It would probably give the reader more information about Dr. Kelly.

But let's go back to the combination lead and proceed to write the entire story.

Downtown Kiwanis Club today announced its "Outstanding Young Man of the Year" and elected new officers.

What should the second paragraph contain? It should either identify the "outstanding young man" or the newsworthy officers (those elected, not those who are leaving office). Which would you consider more important? Write your choice here: ______________________________. What's our choice?
Honored by the Kiwanians is Dr. Robert Kelly, 32-year-old Huntington physician who, during the past year, provided free medical service to more than 500 underprivileged children.

The third paragraph? Our choice would be more information about Dr. Kelly:

Dr. Kelly, who lives at 1214 Tenth Ave., graduated from West Virginia University's School of Medicine in 1964, interned at St. Mary's Hospital the following year, and became a general practitioner in 1966.

Now what? The election. And note the key word that is used as the transition. You'll learn more about key words shortly.

Kiwanians, at their noon luncheon, elected the following officers: John Jones, president; Peter Smith, vice president; Dale Minor, secretary, and Lindsay Mudd, treasurer.

The fifth paragraph?

Speaker at the luncheon was Charles Kincaid, vice president of Reston Coal Co., Bluefield, W. Va. He discussed "How the Coal Industry Helps You."

If you wished, the sixth paragraph could include the names of out-going Kiwanis Club officers (and such a graph could easily be cut in the composing room):

Out-going officers are George Noble, president; Paul Dudley, vice president; Tim Adkins, secretary, and Minton Hoover, treasurer.

Now let's put the paragraphs together and see how they read:
Downtown Kiwanis Club today announced its "Outstanding Young Man of the Year" and elected officers.

Honored by the Kiwanians is Dr. Robert Kelly, 32-year-old Huntington physician who, during the past year, provided free medical service to more than 500 underprivileged children.

Dr. Kelly, who lives at 1214 Tenth Ave., graduated from West Virginia University's School of Medicine in 1964, interned at St. Mary's Hospital the following year, and became a general practitioner in 1966.

Kiwanians, at their noon luncheon, elected the following officers: John Jones, president; Peter Smith, vice president; Dale Minor, secretary, and Lindsay Mudd, treasurer.

Speaker at the luncheon was Charles Kincaid, vice president of Reston Coal Co., Bluefield, W. Va. He discussed "How the Coal Industry Helps You."

Out-going officers are George Noble, president; Paul Dudley, vice president; Tim Adkins, secretary, and Minton Hoover, treasurer.

Which paragraphs in the above story could be killed? The sixth paragraph would be the first to go, followed by the fifth and third in that order.

NOW STUDY THE ABOVE STORY AND ASK YOURSELF: Are there any logical links between the paragraphs? Or is the story just flung together, ignoring any linkage between paragraphs? If you think that you detect any logical links (key words that tie a paragraph to the preceding one), circle them above and show the linkage. If you don't see any, continue to read on.
Logical Links

It is important to remember that the same method used in writing one news story can be used in writing most news stories regardless of story length.

Logical links can help you move into each succeeding paragraph although, at times, it will not be possible, or even desirable, to use them between each paragraph.

We are going to show you the technique of using logical links between paragraphs. We're going to do this by starting you out with a second-paragraph writing exercise because we think that you'll be using this technique—at least in part—without realizing it.
The lead of the story is:

Two firemen were killed early this morning while fighting a spectacular warehouse fire on Huntington's east side.

The additional facts are:

The fire destroyed the E&J Tobacco Warehouse at 2833 28th St. The one-story frame building occupied half a city block between 28th and 29th Streets and Devon and McCorkle Avenues. Fire started around 1 a.m. and burned until 6 a.m. Damage estimated at $50,000 by Fire Chief John Snell. The two firemen killed when a burning wall fell on them were John Jones, 36, of 124½ Lennox St., and Paul Ridnor, 32, of 505 Tenth Ave. A crowd estimated at 4,000 persons watched the blaze. Firemen had difficulty getting equipment to the scene, the fire chief said. At one time, 40 firemen were battling the blaze.

Now write the second paragraph based on the above lead and facts:

__________________________________________

__________________________________________

__________________________________________

__________________________________________

Does your second paragraph look something like this:

Firemen John Jones, 36, of 124½ Lennox St., and
Paul Ridnor, 32, of 505 Tenth Ave., died while fighting the five-hour blaze at the E&J Tobacco Warehouse, 2833 28th St. A burning wall fell on them.

Perhaps you didn't work in the location of the fire. Your second paragraph might have included only the names of the two firemen and how they were killed:

Firemen John Jones, 36, of 1242 Lennox St., and Paul Ridnor, 32, of 505 Tenth Ave., were killed when a burning wall fell on them.

There is no objection to either paragraph. But why is the first example preferable? Because it answers two important questions—the \_\_ and the \_\_\_\_\_.

At this point you might wonder if there are other ways of writing the second paragraph. Certainly. For example, you might have written:

As hundreds of spectators watched, a burning wall collapsed and killed Firemen Paul Ridnor, 32, of 505 Tenth Ave., and John Jones, 36, of 1242 Lennox St.

You probably can think of other ways to write this second paragraph. What you need to remember is that the lead of your story determined what would be the BIG unanswered questions that you would have to answer in the next paragraph. They concern the identity of the dead firemen and the location of the fire. If your second paragraph identified the firemen, but did not tell where the fire had occurred, then your third paragraph most certainly would give the location.
Here, for example, is the way the first three paragraphs might have been written:

Two firemen were killed early this morning while fighting a spectacular warehouse fire on Huntington's east side.

John Jones, 36, of 12È2 Lennox St., and Paul Ridnor, 32, of 505 Tenth Ave., died when a burning wall fell on them.

They were among 40 firemen called to battle the fire-hour blaze which levelled the one-story E&J Tobacco Warehouse at 2833 28th St.

NOTICE THE LOGICAL LINKS USED AT THE START OF PARAGRAPHS TWO AND THREE.

The lead emphasizes the fact that two firemen were killed. Logical continuity is maintained at the beginning of the second and third paragraphs by using firemen and they. Can you think of a logical link for the fourth paragraph, which would probably include information on the estimated damage and the number of spectators? Look at the third paragraph and select a key word from it—or a synonym (a word with the same, or essentially the same, meaning) which could be used to start the fourth paragraph. In selecting the logical link, do not count articles that begin the sentence (such as the, an, a, etc.).

Have you made your choice? Then write the fourth paragraph in the space below.
Now let's put the four paragraphs together and see how it "holds" together:

Two firemen were killed early this morning while fighting a spectacular warehouse fire on Huntington's east side.

Firemen John Jones, 36, of 124 Lennox St., and Paul Ridnor, 32, of 505 Tenth Ave., died when a burning wall fell on them.

They were among 40 firemen called to battle the five-hour blaze which levelled the one-story E&J Tobacco Warehouse at 2833 28th St.

The blaze (or fire), which drew 4,000 spectators, caused damage estimated at $50,000. It began around 1 a.m. and was extinguished by 6 a.m.

Perhaps you have the idea of logical links between paragraphs--key words or names which can be used as links to preceding paragraphs. But you must be careful when you use this technique otherwise your writing might become monotonous, as in the following example:

John Jones, 49, of 315 South St., was arrested today on a charge of burglarizing the B&D Food Market, 315 S. Euclid Place.

Jones was arraigned before Justice of the Peace Fred Gaasch later in the morning and bound over to the Cabell County grand jury.

Jones' bond was set at $5,000.

Jones was arrested by Patrolman Frank McGuire within a block of the market, etc., etc., etc.
The repeated use of the proper noun in the above example makes the story monotonous! Below are some actual news stories which show how proper nouns and pronouns were used almost exclusively to link paragraphs together.

1. The first example--an Associated Press dispatch published in the Huntington Advertiser Dec. 21, 1966, uses proper nouns almost exclusively as logical links. Repeating names at the start of each paragraph does simplify organization, but doesn't it tend to become monotonous? When you read this story, notice that the writer must have recognized the danger. The fourth paragraph begins in a slightly different way:

LENINGRAD, U.S.S.R. (AP)--A Soviet court today sentenced (Buel Ray Wortham Jr.) to three years in a restricted labor camp and fined (Craddock M. Gilmour Jr.) 1,000 rubles--$1,111.11.

(Wortham) was sentenced to two years on the theft charge and three years on the currency charge, the two terms to run concurrently.

(Wortham) first learned of his sentence after it had been read in Russian in the courtroom when a spectator help up three fingers.

(The North Little Rock, Ark., resident) shook his head sadly and knowingly but otherwise showed no emotion.

(Gilmour) showed no emotion during the reading. He said later, "I am thankful for the outcome in my case, but that is tempered by the fact that my good friend Buel is not able to return home to the United States with me."
2. This second example—an Associated Press story in the Dec. 19, 1966, issue of the Huntington Herald-Dispatch—also illustrates the use of a person's name as the logical linkage. In particular, notice the beginning of the third graph. Doesn't this help to break the monotonous repetition? Could you use a similar technique when writing stories that emphasize the who element?

SWARTHMORE, Pa. (AP)—David C. Hardesty Jr., a West Virginia University student from Shinnston, W. Va., was among 32 students named Rhodes scholars here Sunday.

Hardesty, a senior political science student at WVU, was among two college seniors from northern West Virginia chosen for the academic honor.

The Rhodes scholar studies for at least two years at Oxford University in England, beginning next fall. The award carries with it a stipend of $2,800 yearly.

Hardesty is president of the WVU student government and was instrumental in organizing last fall's Festival of Ideas at the university. He indicated earlier he would study philosophy, politics and economics at Oxford.

3. Notice in the third example from the New York Times of Nov. 13, 1966, how the person's name (and pronoun references) were used to link paragraphs. The pronouns probably were used to avoid monotonous writing.
BELGRADE, Yugoslavia, Nov. 12—Mihajlo Mihajlov, the writer, started a 10-month prison term today after losing an appeal to the Supreme Court of Croatia.

He was convicted Sept. 23 of "incitement" under a public order law prohibiting the "spreading of false information aimed at instigating dissatisfaction among the population."

The action of the court in Zadar, where the 32-year-old Mr. Mihajlov had worked as a university lecturer, was taken after three of his articles had been published abroad.

One article praised Milovan Djilas, the former Deputy Premier, who is serving a 13-year sentence for opposing the Government of President Tito. The second dealt with the situation of intellectuals in Communist countries and the third proposed the establishment of an opposition party in Yugoslavia.

Mr. Mihajlov was arrested Aug. 8 just before he planned to hold a meeting with sympathizers to establish an opposition magazine to be called "Free Voice." He spent the next month under investigative arrest and the magazine project floundered.

His trial did not deal directly with the magazine although the publicity stirred by it undoubtedly played a role in his clash with the authorities.

Mr. Mihajlov lodged an appeal with the highest court in the republic of Croatia immediately after his conviction. This was rejected Oct. 25.

He was told a week ago that he would have to begin his sentence. He was in Novi Sad visiting his Russian emigre parents.
This fourth example from the Cleveland Plain Dealer of Dec. 15, 1966, again illustrates linkage through the use of a person's name, with the monotony broken by the third paragraph which begins with a pronoun. Notice, in the last graph, the use of a short (and keep it short) read-in phrase—although the link is still "Moyers."

WASHINGTON—Bill D. Moyers, President Johnson’s intimate friend, adviser and press secretary, is resigning from the White House staff to become publisher of Newsday, the prosperous Long Island, N.Y., afternoon newspaper.

Moyers, 32, is the last survivor among top presidential aides who have been with Johnson from the beginning of his administration three years ago.

He will be replaced Jan. 31 as press secretary by George Christian, 39, another Johnson intimate who came to the White House last May from the staff of Gov. John Connally of Texas.

Moyers indicated that he was leaving with the President's blessings to accept an offer that promises him financial independence within a few years.

Moyers also disclosed that Jake Jacobsen, another close friend of Johnson, planned to resign as legislative counsel early next year to return to private law practice in Austin, Tex. Jacobsen had been Johnson's constant aide and companion for two years. No replacement for him was announced.

Discussing his own resignation, Moyers denied that he had any conflicts or quarrels with anyone at the White House. He described his decision as "the most difficult" he had ever made.
Now let's see if you can use logical links to put together a three-paragraph story based on the following information:

John Jones, 33, of 4215 E. Harper St. He was found guilty today of burglary. Verdict returned by a Common Pleas Court jury. Jury deliberated two hours. Jones was sentenced to 10 years in prison. Sentence passed by Judge Ernest Smithers. Jones' attorney, E.P. McGuire, announced he would appeal the conviction. Jones, who is married and the father of three children, was convicted of the burglary last Nov. 23 at the E&P Supermarket, 2118 Fifth Ave. A safe containing $650 in cash was pried open. The money was stolen.

Based on the above information, write your story by using the logical links already provided:

John Jones, 23, of 4215 E. Harper St., was convicted ____________________________

He was sentenced to ____________________________

His attorney, E.P. McGuire, announced ____________________________

Jones, who is married and the father of three children, was convicted of burglarizing ____________________________

A safe containing ____________________________

Now check your story with the "model" below:

John Jones, 23, of 4215 E. Harper St., was convicted today of burglary by a Common Pleas Court jury which deliberated two hours.
He was sentenced to 10 years in prison by Judge Ernest Smithers. His attorney, E.P. McGuire, announced that the conviction would be appealed.

Jones, who is married and the father of three children, was convicted of burglarizing the E&P Supermarket, 2118 Fifth Ave., last Nov. 23. A safe containing $650 was pried open and the money stolen.

Your story need not have been identical with the model. You might, for example, have begun the news story in this way:

John Jones, 23, of 4215 E. Harper St., was sentenced today to 10 years in prison after a Common Pleas Court jury deliberated two hours and found him guilty of burglary.

His attorney, E.P. McGuire, announced that the sentence would be appealed.

Jones, who is married and the father of three children, was found guilty of burglarizing the E&P Supermarket, 2118 Fifth Ave., last Nov. 23. A safe containing $650 was pried open and the money stolen.

NOTICE, IN PARTICULAR, THE USE OF THE PRONOUN IN THE SECOND PARAGRAPH OF EACH STORY ABOVE. THIS IS TO AVOID THE MONOTONOUS JONES-JONES-JONES LINKAGE.

EXERCISES

Let's see how well you can do in writing stories with succeeding paragraphs logically linked together. After you've tried your hand at writing the following stories, compare them with the "models." When you've completed the exercises (by typing them, double-spaced,
on separate sheets of paper) show them to your instructor.

Write 3-Graph Story

Peter Smith, 24, of 1892 Howard Drive. He suffered a broken leg and a head injury last night. Struck by an automobile driven by Mrs. John Snell, 306 Tecumseh St. Smith was taken to Memorial Hospital where his condition was listed as satisfactory. He was crossing Fifth Avenue at 19th Street when the accident occurred. Police are still investigating.

Write 4-Graph Story

Mrs. John Jones, 74, of 316 Euclid Place. She died at her home after a long illness. Died this morning. She was a past president of the Federated Women's Clubs of Huntington and the East Side Garden Club. She also was a member of the American Legion Auxiliary and the East Side Parent-Teacher Association. Mrs. Jones, a widow, is survived by a son, John, and two daughters, Mrs. Edith Miller and Mrs. Pamela Dougherty, all of Huntington. Funeral arrangements have not been completed yet.

Write 5-Graph Story

Fire this morning. It destroyed the two-story home of Mr. and Mrs. Charles Rogers, 3152 Crestmont Ave. Firemen battled the blaze for three hours—beginning at 6 a.m.—before they brought it under control. Damage estimated at $14,000 by Fire Chief John Snell. No one injured. Mr. and Mrs. Rogers and their two children were asleep when the fire began in the basement. Cause of the fire not yet determined. The parents rushed to a bedroom where their daughters, Cynthia, 6, and Margaret, 4, were sleeping. They carried the children to safety. The family has been provided temporary shelter by neighbors. "All their personal possessions were destroyed," a neighbor, Mrs. Priscilla Prescott, 312 Euclid Place, said. "We're collecting clothing and furniture to help them out, and we believe that another home has been found for them in our neighborhood."

WHEN YOU'VE FINISHED COMPARING YOUR STORIES WITH THE MODELS, STORIES AND MODELS DO NOT HAVE TO BE THE SAME.
Peter Smith, 24, of 1892 Howard Drive, suffered a broken leg and head injury last night when struck by an automobile driven by Mrs. John Snell, 306 Tecumseh St.

Smith was taken to Memorial Hospital where his condition was described (listed) as satisfactory.

He was struck while crossing Fifth Avenue at 19th Street. Police are still investigating.

Mrs. John Jones, 74, of 316 Euclid Place, died this morning at her home after a long illness.

She was a past president of the Federated Women's Clubs of Huntington and the East Side Garden Club. She also was a member of the American Legion Auxiliary and East Side Parent-Teacher Association.

A widow, Mrs. Jones is survived by a son, John, and two daughters, Mrs. Edith Miller and Mrs. Pamela Doughterty, all of Huntington.

Funeral arrangements have not been completed yet.

Fire this morning destroyed the two-story home of Mr. and Mrs. Charles Rogers, 3152 Crestmont Ave., causing damage estimated at $14,000.

The Rogers carried their two children, Cynthia, 6, and Margaret, 4, to safety shortly after the blaze began at 6 a.m.

The fire, which started in the basement, was brought under control at 9 a.m., according to Fire Chief John Snell, who estimated the damage. Cause of the blaze is not yet known.

Neighbors are providing temporary shelter
for the family and have started a drive to collect clothing and furniture.

"All of their personal possessions were destroyed," said a neighbor, Mrs. Priscilla Prescott, 312 Euclid Place. "We're collecting clothing and furniture to help them out, and we believe that another home has been found for them in our neighborhood."

Did you notice that the logical linkage broke down in the third story between the third and fourth graphs, but that it was partially restored between the fourth and fifth graphs? In many instances it will not be possible to logically link all paragraphs. Why? Because new "angles" or information must be introduced quickly.

A final reminder: Logical links are one way to help you write better organized news stories. They are not the only device that can be used. There are a variety of other transitional devices (words or phrases) which can be used to provide smoother and more effortless reading.

Other Transitions

Have you noticed that many paragraphs begin with such words as: however, although, nevertheless, but, etc.? Such beginning words alert the reader, perhaps telling him that a contrary viewpoint or statement is about to be presented, or that the writer of the story
is about to make a transition in time. The use of such words is similar to stationing a signalman who waves a red flag.

**AT THIS POINT YOU WILL BE PROVIDED WITH SOME MARKED NEWSPAPER STORIES WHICH ILLUSTRATE THE USE OF TRANSITIONAL WORDS. STUDY THEM. WHEN YOU'VE COMPLETED THE STUDY, RETURN TO THE EXAMPLES PROVIDED BELOW.**

In addition to the marked newspaper stories, here are some additional examples of transitional words which indicate contrary viewpoints, statements, actions, etc.:

Huntington Mayor John Jones yesterday deplored slum conditions existing on the city's west side. However, the mayor indicated that little could be done at present to rid the city of slums.

In his talk, the former Marine Corps general said that the only way the war could be won was "to severely punish the aggressors."

He added, however, that U.S. military forces are prevented from doing this "out of political consideration."

City councilmen debated the issue for nearly three hours last night and then adjourned. Although no action was taken, one councilman promised to submit a resolution at the next council session "in support of open housing."

Nevertheless, said State Sen. William Kaufmann, D-Cabell, a new effort will be made to have the bill reconsidered.
"Jump" Transitions

Sometimes it's necessary to provide information which occurred, or which was news, a few days prior to the story now being written. Sometimes the writer must refer to an event, statement, etc., that came after an initial statement, etc. In such cases, "jump" transitions can be used. They include such words as earlier, later, previously, etc. Here are two examples:

The state legislature passed the bill 28-14. Earlier, Gov. John Rhodes had strongly supported passage of the safety measure.

The manager of the Student Union announced the expansion plan at a meeting of the Student Senate. Later, however, he indicated that funds would not be available to begin construction for at least two years.

Continuation

If you wish to continue a thought, comment, action, etc., from one paragraph to the next, here are some continuation words that will enable you to do it: and, also, too, etc. Some examples:

"We will never submit to pressure," the congressman said.

And, he added, there is no way to turn back "even if we wished to do so."

The fire destroyed the warehouse and damaged three nearby residence. Also damaged were four automobiles parked in front of the warehouse.
EXERCISES
(Fill in the blanks in the following exercises with the most suitable transitional word.)

1. The fire raged out of control for five hours, destroying a machinery equipment firm, a bakery, and two small warehouses.

Firemen, ________, prevented the blaze from reaching a gasoline storage area.

2. The delegates included four each from the United States, the Soviet Union, Great Britain and France.

__________, Turkey and Greece were entitled to send two delegates each, they declined to do so.

__________, the foreign minister of Greece said his country would send two observers. They are expected to arrive tomorrow.

3. Police at first said no arrests had been made and that there were no clues in the murder of the suburban housewife.

__________, ________, the two men were charged with the crime. ________, the suspects refused to make a statement, County Prosecutor George Peabody said, "All the evidence points to them."

4. The riot took place in the downtown area of this resort city.

__________, in the day everything had seemed peaceful, according to Sheriff Jim Stevens, who described the influx of "holiday fun-seekers" as an annual occurrence.

"__________ this time they caught us napping," the sheriff admitted. "We'll be better prepared next time."

5. The 13 House of Delegate members who were selected include Peter Smithers, Russell Smedley, George Rust, Larry Maxwell, Orville Peters, Clyde Lacey, Terry Brennan and Russell Baker.

6. He told of plans to build a multi-million dollar shopping center complete with terraced walkways, trees, and a supervised recreation area for children.

_____ he said, there ____ will be a rest area for weary husbands and fathers.

CHECK YOUR ANSWERS: 1. however; 2. although and and however; 3. later, however, and although; 4. earlier and but; 5. also, and 6. and and also.

REVIEW

Let's see how well you've absorbed information in this section. You may, if you wish, check back through the material for the answers.

1. In which of the two examples below is a combination lead used? (Circle the combination lead)

Three brothers were arrested this morning on a charge of burglarizing the Standard Supermarket, 302 Sixth Ave. They are John, Warren and Clyde Merrill of Lakeland, Ky.

President Johnson today appointed a 55-year-old Wall Street broker to fill a vacancy on the Federal Reserve Board and signed into law a bill granting federal judges a 15 per cent annual pay increase.

2. How would you describe a logical link between paragraphs? _________________________________

3. You may have had some difficulty describing a logical link. On a separate sheet of paper, type a
three- or four-paragraph story based on any "facts" that you "dream up." Each paragraph of your story must be logically linked to the preceding paragraph. Circle and connect the logical links. When you've completed the review questions, show this story to your instructor.

4. List some words which could be used as transitions from one paragraph to another. Your list should include two words that indicate a contrary viewpoint, statement, action, etc.; two "jump" transitions, and two "continuation" words: ______________________

5. Use the words you listed in the preceding question and write a sentence for each one showing how it could be used in a news story. Do this on a separate sheet of paper. When you've completed the review, show these sentences to the instructor.

6. Based on the following facts, type a 5, 6 or 7-paragraph story that includes some logical links and transitional words. Type this story on a separate sheet of paper.

Huntington city council. It met last night. Passed an ordinance increasing garbage collection fees from $1.50 to $2 monthly. Ordinance passed by 3-2 vote. Councilmen favoring the ordinance were Charles Lacy, Claude Minter and Leverett Stanton. The ordinance was opposed by Jim Winters and William Edwards. The increase in fees will affect 20,000 households and will increase city revenue by $120,000 annually--so said
Sanitation Director Paul Minnow. Prior to passing ordinance—yesterday morning, in fact—Mayor E.L. Roberts said, "We will either pass this ordinance or be forced to reduce garbage-removal service. At present the city is losing $100,000 a year because the fees do not meet the costs of garbage removal." Councilman Jim Winters disputed the mayor's statement. "I know for a fact," Winters said, "that present city garbage collection fees cover 95 per cent of the cost."

When you're finished, compare your story with the model below. THEN BRING SECTION II, WITH ALL OF THE WORK YOU'VE DONE, TO THE INSTRUCTOR SO THAT HE CAN GO OVER IT WITH YOU.

Huntington city council by a 3-2 vote, passed an ordinance last night increasing garbage collection fees 50 cents a month.

Councilmen voting for the higher fees were Charles Lacy, Claude Minter and Leverett Stanton. Those opposed were Jim Winters and William Edwards.

The increased fee will affect 20,000 households and add $120,000 annually to city revenue, according to Sanitation Director Paul Minnow.

Earlier, Mayor E.L. Roberts had said: "We will either pass this ordinance or be forced to reduce garbage-removal service. At present the city is losing $100,000 a year because the fees do not meet the costs of garbage removal."

However, Councilman Jim Winters disputed the mayor's statement. "I know for a fact," he said, "that present city garbage collection fees cover 95 per cent of the cost."
Appendix D

SECTION III--EDITING YOUR OWN COPY

Whether you realize it or not, you've come a long way in learning how to write news stories. Now we want to show you ways to improve your writing ability--and we're going to do this by teaching you to be your own editor. Before you start, we want you to read some helpful material. Read pages 194, beginning with "conciseness," through 207 in MacDougall's Interpretative Reporting. A copy of this textbook is in the classroom.

We're going to look at three writing factors: wordiness, editorializing and attribution.

Wordiness

Beginning reporters have various difficulties, including a tendency to overwrite. They use three words where one would do the job. This may have resulted from earlier writing instruction where terseness is not necessarily a virtue. It is in news writing.

Let's take some examples of "wordiness" in news stories--sometimes referred to as "diarrhea of the typewriter"--and see how they can be edited.
1. The next regular meeting is scheduled to be held on Feb. 25.

   Edited version: The next meeting will be held Feb. 25.

   OR

   The next meeting will be Feb. 25.

2. Guests are cordially invited to attend the meeting.

   Edited version: Guests are invited.

3. The meeting will be held at 8 o'clock next Sunday night.

   Edited version: The meeting will be held at 8 p.m. Sunday.

   OR

   The meeting will start at 8 p.m. Sunday.

NOW YOU TRY SOME! COVER THE EDITED VERSION WITH PAPER AND DRAW A LINE THROUGH ANY SUPERFLUOUS WORD:

1. All members will meet at the regularly scheduled time next Sunday starting at 8 p.m.

   Edited version: Members will meet Sunday at 8 p.m.

2. The club will hold a special meeting to elect new officers for the coming year.

   Edited version: The club will elect new officers.

   OR

   The club will elect officers.

3. John Jones, worthy grand master, presided at the important meeting.

   Edited version: John Jones, worthy grand master, presided.
4. The annual convention will be held from Feb. 25 to Feb. 28 in the fun-loving, friendly city of Chicago.

Edited version: The annual convention will be held Feb. 25-28 in Chicago.

Here's a news story to edit. Draw a line through unnecessary words, phrases, or sentences:

Three new officers were elected at 1 p.m. yesterday afternoon by the combined membership of the Downtown Kiwanis Club.

Installed into their new posts, they are John Jones, who will make an excellent president; George Lundley, who will be a competent vice president, and Paul Dithers, trustworthy secretary-treasurer.

There was no opposition to their election.

In other action taken by club members, a valuable $1,000 scholarship was presented to an 18-year-old girl, Cynthia Morgan, a senior at the Wilber High School. She announced that she plans to use the $1,000 scholarship in order to attend college.

NOW COMPARE YOUR EDITED VERSION WITH THE "MODEL":

Three officers were elected yesterday by the Downtown Kiwanis Club.

They are John Jones, president; George Lundley, vice president, and Paul Dithers, secretary-treasurer.

In other action, a $1,000 scholarship was presented to 18-year-old Cynthia Morgan, a senior at Wilber High School. She plans to use the scholarship to attend college.

Editorializing

You might wonder why the following words and phrases were deleted: "who will make an excellent," "who
will be competent," "trustworthy," and "valuable."
They are examples of **editorializing**, which means that
the writer of the news story is inserting his opinion
or someone else's opinion. In the latter case, the
"someone else" is not identified. Therefore, it be­
comes the writer's opinion.

Let's try another example. Draw a line through
excess words, phrases and editorial opinions--then
compare your work with the "models":

A three-year-old boy was drowned this morning
in a farm pond three miles southwest of Huntington
just off State Route 10.

The young victim was Timothy Shale, the son of
Mr. and Mrs. George Shale, 8916 South Road. He
apparently had walked out onto the ice-covered pond
to retrieve a rubber ball. It was found close to the
break in the ice. The ice broke beneath his weight
and he was drowned. Obviously the boy was not being
watched closely enough by his parents.

Sheriff's deputies recovered the boy's body
after dragging the pond for 10 minutes.

Besides the parents, survivors include his
only sister, Wanda, and a brother, Charles.

NOW COMPARE YOUR EDITED VERSIONS WITH THE MODEL:

A three-year-old boy drowned this morning in
a farm pond three miles southwest of Huntington just
off State Route 10.

The victim was Timothy Shale, son of Mr. and
Mrs. George Shale, 8916 South Road.

He apparently walked onto the ice-covered pond
to retrieve a ball. It was found close to the break in the ice.

Sheriff's deputies recovered the body.

Besides the parents, survivors include a sister, Wanda, and a brother, Charles.

HERE'S ANOTHER STORY TO TAX YOUR EDITING SKILL:

A raging fire destroyed a two-story warehouse today, causing an amount of damage estimated at $25,000 dollars.

Only one person, a warehouse employee, was injured slightly. He is George Kinder, 39, of 3651 Eighth Ave., who suffered third-degree burns on his hands. He was treated at St. Mary's hospital and released.

The fire at the Owens Produce Co. warehouse, 5213 E. Lake St., was discovered at 6 a.m. this morning by a night watchman, George Peters, who turned in the alarm. He must have been slow turning in the alarm because by the time firemen arrived the fire had a good head start.

The firemen battled the blaze for an estimated four hours before bringing it under control.

At the height of the blaze an estimated crowd of 1,200 persons watched as the greedy flames roared through the frame storehouse used as a warehouse where wholesale vegetables were stored.

One spectator, a Mrs. Geneva Jones, 55, of 5118 E. Lake St., apparently suffered a heart attack while watching, but she was treated at the scene and taken to her home where a physician said she was in good condition.

NOW COMPARE YOUR EDITED VERSION WITH THE MODEL:

Fire destroyed a two-story warehouse today, causing damage estimated at $25,000.

A warehouse employee, George Kinder, 39, of
3651 Eighth Ave., suffered third-degree burns on his hands. He was treated at St. Mary's Hospital and released.

The fire at the Owens Produce Co. warehouse, 5213 E. Lake St., was discovered at 6 a.m. by night watchman George Peters, who turned in the alarm.

Firemen battled the blaze for four hours before bringing it under control.

An estimated 1,200 persons watched as flames roared through the frame warehouse where wholesale vegetables were stored.

One spectator, Mrs. Geneva Jones, 55, of 5118 E. Lake St., apparently suffered a heart attack. She was treated at the scene and taken home where a physician said she was in good condition.

Notice that the editorial opinions—"only," referring to "only one person," and "he must have been slow turning in the alarm because by the time firemen arrived the fire had a good start"—have been deleted. Why? Because to the person who was injured slightly—-one was surely one too many. It would be like writing: "Only one person was killed this morning in a two-car collision . . . ." To the person who was killed, and to this person's loved ones, the fact that only one person was killed will be of very little comfort to them. Just write it: "One person was killed . . . ."

As for the sentence about the slowness of the watchman in turning in the alarm, he may or may not have been slow—but if he was, then some responsible person, like the fire chief, should give such an opinion
(which could be libelous, about which we'll have more to say in Section IV). You certainly are not the one to judge the watchman. In fact, he may have turned in the alarm a few minutes after the fire started, but the old warehouse was a tinderbox. Once the fire started, firemen were helpless to extinguish the blaze before the building was destroyed.

**Superfluous Articles**

In the next editing exercise, watch out for superfluous articles, such as an, the, a, etc.—but don't delete an article if "reading ease" is affected (that is, if the writing becomes choppy, harder to read):

An 18-year-old youth was honored today at an awards banquet sponsored by the Huntington East Parent-Teacher Association.

The lucky winner of the scholarship trophy is George Mathias, the son of Mr. and Mrs. Albert Mathias, of 1602 Rotterdam Road.

He earned the coveted PTA trophy by maintaining a fine 3.9 overall academic average throughout the four years he was at Huntington East.

**NOW COMPARE YOUR EDITED VERSION WITH THE MODEL:**

An 18-year-old youth was honored today at an awards banquet sponsored by Huntington East High School Parent-Teacher Association.

Winner of the PTA scholarship trophy is George Mathias, son of Mr. and Mrs. Albert Mathias, 1602 Rotterdam Road.

He earned the trophy by maintaining a 3.9 academic average throughout four years.
Here's another exercise. Again, watch out for superfluous articles and for editorial expressions.

The Rose City Garden Club plans to show an attractive exhibit of many prize-winning flowers at an annual exhibit by the club on Nov. 23 to Nov. 27 in the Huntington Field House.

All of the public is very cordially invited. The admission price will only be 50 cents for adults. All children will be admitted free of charge.

The favorite exhibits will include unusual hybrids and a rare championship rose grown by the club president, Mrs. Gracie Fields, of 2219 Pickwick Park.

Here is the edited version:

Rose City Garden Club plans to show prize-winning flowers at an annual exhibit Nov. 23-27 in the Huntington Field House.

The public is invited. Admission will be 50 cents. Children will be admitted free.

Exhibits will include hybrids and a championship rose grown by Club President Mrs. Gracie Fields, 2219 Pickwick Park.

Attribution

By now you must be wondering how opinions do manage to get into news stories. One way is by attribution.

What do we mean by attribution? We mean "hanging" an opinion on someone; that is, someone is quoted either directly or indirectly.

Let's first explain what we mean by direct and indirect quotations.
Direct quotation: "I will never resign," Mayor Jones said.

Indirect quotation: The mayor said he will never resign.

Why, you might ask, would it be necessary to quote the mayor either directly or indirectly?

Well, if you wrote: The mayor will never resign, he's liable to resign the next day—which means that you, the writer, would end up with egg on your face. You might also end up without a job.

Attribution, like quotations, can be direct or indirect.

Direct attribution would be: "I will never resign," Mayor Jones said. Or: Mayor Jones said he will never resign.

Indirect attribution would be: Informed sources said Mayor Jones will never resign. Or: Mayor Jones will never resign, a reliable source said.

Qualify

Attributions and quotations serve as qualifiers. What does it mean to qualify something that's been written? From a practical standpoint, a qualifier takes the writer off the hook. The writer qualifies something when he's not sure it's a fact. He hedges—like saying
"maybe," or "possibly." There are many examples of ways to qualify something that's been written. Among the better ways is to use "said" or "according to."

Here are some examples:

1. The penalty was termed severe by the defendant's attorney. (Attribution)

2. Damage was estimated at $75,000 after the blaze was extinguished, according to Fire Chief John Clarke. (Later, insurance adjusters and others may argue—sometimes in court—about the amount of damage.)

3. The accident apparently was caused when signal lights failed to function properly, an investigator said. (In this instance, the investigator did not wish to make a flat statement about what caused the accident, hence the use of the word "apparently."

The use of apparently leaves room in the event some other cause is detected. You will frequently see this used in initial stories about deaths until a government official—the county coroner or county medical examiner—has officially determined the cause of death. For example: The victim apparently was stabbed to death; the man apparently died of a blow to the head, or death apparently was caused by a heart attack.

In the above instances the use of the qualifier
shows that something else might have happened. In the case of the man apparently stabbed to death, the wounds might not have been fatal. He may have died of a heart attack! Or, in the case of the man who apparently died when struck on the head, he may first have been suffocated and then hit on the head to cover up the cause of death (suffocation).

Probably the better qualifier is the verb "said." It's a dandy word for newsmen to use! The word "said" attributes and acts as a qualifier. For example:

Taxes must be raised to pay for necessary city services, Huntington Mayor John Jones said today.

Notice how the news writer attributes the information to the mayor and, at the same time, qualifies the information. Why? Because in this instance increased taxes might not be necessary to pay for city services. The mayor might not be factually correct. Yet there's no way that the newsman can verify the mayor's statement unless he's prepared to spend days digging through the city's financial records. Obviously, he must write what the mayor says--since what the mayor says is news. If he wishes, the reporter can attempt verification at a later time.
Several more examples may show what we mean:

"We need to review and modify our policy toward Vietnam," said Arthur Schlesinger Jr., Pulitzer prize-winning author and historian.

Schlesinger may be right. Then again he may be wrong. U.S. foreign policy frequently is criticized. Instead of the newsman making a flat statement about U.S. policy, he writes the story in such a way that the person being critical of foreign policy is identified. This is where the important attribution and qualifier—"said"—comes in for extra work in news stories.

Gov. John Jones said he would ask for an investigation into charges of irregularities at state mental institutions.

The governor may never get around to requesting an investigation. Why? It might not be politically expedient!

The attorney general said he was shocked that such a charge could be made.

The attorney general might not really be shocked. He might even know that the charge is justified.

The state senator charged that Communists are operating at all levels of government. "I won't tolerate it," he said.

In the above example, "charged" is a qualifier since there may be a wide gap between something that is "charged" and something that's a fact. The "said" acts as attribution.
Another attribution device (which serves the dual function of a qualifier) is "according to." These two words, according to, serve the same purpose as said. For example:

Taxes must be raised to pay for necessary city services, according to Huntington Mayor John Jones.

OR

U.S. foreign policy in Vietnam must be modified, according to Arthur Schlesinger Jr., Pulitzer prize-winning author and historian.

OR

An investigation will be conducted into charges of irregularities at state mental institutions, according to Gov. John Jones.

Unnecessary Attribution

Beginning news reporters generally over-qualify or over-attribute. You will learn more about the need for attribution and qualification when you're introduced to libel (Section IV). For the moment, let's look at several examples of unnecessary qualification and attribution:

1. The club president said there would be a meeting Dec. 12. (No attribution is needed. Simply write it: The club will meet Dec. 12.)

2. The mayor left on his vacation two days ago, an aide said. (No need to attribute this unless something might be fishy about the mayor's "vacation." If
there is reason to believe that all is not as it seems, then attribute!)

3. Winner of the scholarship is 17-year-old Nancy Goodman, according to contest judges. (Either she won it or she didn't! No need to qualify this.)

4. After leaving the road, the car apparently went into the lake. (Either it went into the lake or it didn't.)

5. Election results showed the new club president to be John Smithers, Huntington businessman. (Either he was elected president or he wasn't. If, in general election stories, fraud or a contested election are possibilities—or the election results are unofficial—then some kind of a qualifier can be used, such as: The unofficial tabulation showed . . . .)

6. A movie will be shown at 8 p.m., according to (said) the Student Union manager. (Why qualify something like this?)

Exercises

In the following exercises, edit for wordiness, editorializing, and unnecessary attributions or qualifications:

1. The club, with all members expected to attend, will meet at 8 p.m. Monday night, according to Club President John Jones.
2. The eclipse of the sun, which should be spectacular, probably will occur at 3:22 p.m. Friday, according to information which came from Fels Planetarium officials.

3. "We're going to demand a recount of the votes," shouted the mayor, after the Election Commission announced that the needed four-mill levy had been defeated by a margin of only 526 votes.

4. "I know that we have an enjoyable meeting scheduled," said Mrs. Martha Smith, president of the Federated Women's Clubs, referring to the fact that her organization will meet from 3 to 5 p.m. on Dec. 22 at the organization's clubhouse.

5. The death was due to natural causes, according to the county coroner after an autopsy had been completed.

Check Your Editing Skill with the "Models"

1. The club will meet at 8 p.m. Monday.

2. The eclipse of the sun will occur at 3:22 p.m. Friday.

OR

The solar eclipse will occur at 3:22 p.m. Friday.

3. "We're going to demand a recount of the votes," shouted the mayor, after the Election Commission announced that the four-mill levy had been defeated by 526 votes.

4. Federated Women's Clubs will meet from 3-5 p.m. Dec. 22.

5. Death was due to natural causes. (An official determination has been made in this case. No attribution or qualification is necessary.)

Copyediting Symbols

You now know that news stories must be edited for wordiness, editorializing, and for unnecessary
attributions. There will, however, be occasions when you wish to insert a qualification, correct a misspelled word, insert letters in a word, or transpose letters or words. To accomplish these, you must know certain copyediting symbols.

**ALWAYS EDIT IN PENCIL.** Why? So that incorrect editing symbols can be changed.

At this point read pages 1-5, *Copy Editing Workbook*, by Robert J. Cranford. A copy of this workbook is in the classroom.

You will need to know editing symbols. The major ones are:

- **Indent for paragraph:** 
  Three men were arrested.

- **Insert letter:**
  the accomodations were poor.

- **Insert word or words:**
  The men were innocent.

- **Deletion and close up words leaving normal space:**
  Fire completely destroyed.

- **Transpose letters:**
  The order was received.

- **Transpose words:**
  The order of first business is.

- **Delete letter:**
  There was no commitment.

(The "rockers" at the top and bottom of the deletion symbol above tells the Linotype operator to "close up" the letters on each side of the deletion; that is, he is not to leave a space where the letters have been deleted. The deletion of the "t" in "not" is accomplished by a vertical line. No "rockers" are used.)
Lower case (do not capitalize): Dr. J.T. Williams, professor of botany, was . . .

Capitalize: The Romans were attacked . . .

Insert commas, periods, apostrophes, quotation marks, etc.:

Dr. J.T. Williams, professor of botany, wasn't expected until tomorrow, according to the dean. "He'll be the new chairman of the Botany Department," said Dean McGovern.

TRY YOUR HAND AT EDITING THE FOLLOWING STORY.
WHEN YOU'RE FINISHED, COMPARE YOUR WORK WITH THE MODEL.

A two alarm fire completely destroyed a frame residence today causing total damage estimated at $15,000.

The fire at the home of Mr. and Mrs. John Peters, 3802 W. Lake St., began around 9 A.M. in the basement, according to Fire Chief John Gallagher.

"We don't know what caused it," said Chief Gallagher. "We're investigating still."

No one was injured.

Peters, who is President of the Ace Tire Store, 672 Fifth Ave. said he had just left the home when he saw smoke coming from the basement.

"I ran back to warn my wife," he said then we called the fire department."
The fire department, which was slow in responding to the call, had the fire under control within an hour and prevented it from spreading to nearby residences.

NOW COMPARE YOUR EDITING WITH THE MODEL:

A two-alarm fire completely destroyed a frame residence today, causing total damage estimated at $15,000.

The fire at the home of Mr. and Mrs. John Peters, 3802 W. Lake St., began around 9 A.M. in the basement, according to Fire Chief John Gallagher.

"We don't know what caused it," said Chief Gallagher. "We're investigating still."

No one was injured.

Peters, who is President of Ace Tire Store, 672 Fifth Ave., said he had just left the home when he saw smoke coming from the basement.

"I ran back to warn my wife," he said, "then we called the fire department."

The fire department, which was slow in responding to the call, had the fire under control within an hour and prevented it from spreading to nearby residences.

Let's give you another story to edit—one that will tax your ability to spot all kinds of errors and your ability to use correct editing symbols.
An $11 million bond issue has been approved by the West Virginia board of Education, Dr. Stuart H. Smith, Marshall University President, announced today.

Bonds will be sold to finance the construction of a new University Center, which will cost approximately $35 million; a twin-towers dormitory, costing about $5.5 million, renovation and additions to Laidlay and Hodges dormitory, costing approximately $1 million, and a communications center to house Educational Television (ETV), costing about $1 million.

The bonds, Dr. Smith said will be sold sometime in March with student tuition fees to be set aside in a special fund in order to retire the bonds.

"Construction work on these projects should be underway by next summer," Dr. Smith said.

"It's about time," an unidentified student said.

Dean and Dean Architects of Huntington have been hired to draw plans for the university Center which will replace the present Student Union built as long ago as 1926.

The twin-towers dormitory, which will house 1000 students, will be located somewhere between 17th and 20th streets near Fifth Avenue in an area recently cleared by Urban Renewal.
An $11 million bond issue has been approved by the West Virginia board of Education, Dr. H. Smith, Marshall University President, announced today.

Bonds will be sold to finance the construction of a new University Center, which will cost approximately $3 million; a twin-towers dormitory, costing about $5.5 million, renovation and additions to Laidley and Hodges dormitories costing approximately $1 million, and a communications center to house Educational Television (ETV), costing about $1 million.

The bonds, Dr. Smith said, will be sold sometime in March with student tuition fees set aside in a special fund in order to retire the bonds.

"Construction work on these projects should be underway by next summer," Dr. Smith said.

"It's about time," an unidentified student said.

Dean and Dean Architects of Huntington have been hired to draw plans for the university Center, which will replace the present Student Union built as long ago as 1932.

The twin-towers dormitory, which will house 1000 students, will be located somewhere between 17th
and 20th streets near Fifth Avenue in an area recently cleared by Urban Renewal.

In the above exercise, you should have noticed that it is extremely important that you check facts, such as the spellings of dormitories and the president's name, the date when the Student Union was constructed, and recheck any suspicious-looking fact, such as the $35 million University Center! In other words, take nothing for granted. Challenge facts. Use the dictionary. BE SURE! You may be wondering why so much emphasis is being placed on developing a critical attitude toward written words. It's because our eyes sometimes refuse to see what we want them to see. Just for the fun of it, let's test your perceptiveness. Read the following sentence once. As you do so, count the number of F's in the sentence.

FEWER FUSE FAILURES ARE THE RESULT OF YEARS OF SCIENTIFIC STUDY COMBINED WITH THE EXPERIENCE OF YEARS.

How many F's did you see? Enter the number here. You probably counted five. If so, re-read the sentence. Continue to do this until you can see all seven of them.
The point is: you MUST use all of your faculties and resources to spot errors. Don't guess at the spelling of a person's name, a street address, the spelling and meaning of any of the more than 400,000 English words. CHECK AND DOUBLE-CHECK! You can teach yourself to be an editor. How? One way is to anticipate errors in news stories.

1. One of the more common mistakes in news stories is disagreement of subject and verb. In the sentence you've just read, one is the subject and takes a singular verb—**is**.

   a. The group of teachers (was or were) absent . . . (The subject is group. The verb—**was**.)
   b. No one (was or were) present. **Was**.
   c. Officers of the association (was or were) dismissed. **Were**.
   d. The column of infantrymen (was or were) forced off the road. **Was**.
   e. The Association of Color Blind Men (was or were) disbanded. **Was**.

2. **Redundancy** is another common error. Here are some examples:

   a. The building was completely destroyed. (If the building was destroyed, then **completely** is un-
necessary. The same criticism holds true for such expressions as: totally demolished, totally destroyed, completely gutted or burned out, etc. If something is not destroyed, it may be partially destroyed, partially demolished, etc.)

b. Don't write: The young girl (a girl is young). If you wish to be specific, write it: The four-year-old girl . . . or . . . Audrey Totter, 4, of 1622 Seminole Ave., was . . .

Similarly, don't write: The young baby (baby is young).

c. Don't write: Strangled to death, or electrocuted to death (since strangled and electrocuted are sufficient to denote death).

d. We sometimes write without thinking. Have you ever seen these: the hairy ape, four-legged dog, absolutely certain, brutally murdered, completely innocent, red-blooded American, a raging volcano, beaten and assaulted (although assaulted is sometimes used as a euphemism for raped), etc.?

3. When you write obituaries, don't have a person passing away, succumbing, going to his last resting place, giving up the ghost, expiring, etc. Just use: died.

Example: John Jones, 64, of 1822 S. Euclid
Place, died today after suffering a heart attack.

4. Don't write: a person sustained injuries.
A person suffers; an inanimate object sustains.

Example: John Jones, 24, of 1822 S. Euclid Place, suffered a head injury last night when he fell . . .

The auto sustained $300 in damages.

5. Don't write: John Jones, 24, pleaded not guilty. ALWAYS WRITE IT: John Jones, 24, pleaded innocent.

Why? If the "not" is dropped out of "not guilty" when the story is being set by a linotype operator, your newspaper may lose a wad of money.

6. USE THE DICTIONARY! Can you spell: receive, accommodate, referred, separate, incidentally, all right (instead of alright), newsstand, familiar, similar, aggressive, guerrilla, development, regard, inconvenience, diligent?

7. USE THE RIGHT WORD! Go to the dictionary and write the meaning of the following words (so that you can distinguish between words that are often confused with one another.) When consulting the
dictionary, remember that the first spelling given in this reference source is the preferred one. For example: adviser, advisor. Adviser is the preferred spelling.

a. Affect and effect:
b. It's and its:
c. Their, they're and there:
d. Capitol and capital:
e. Conscience and conscious:
f. Preceding and subsequent:
g. Preceding and proceeding:
h. Counsel and council:
i. Principal and principle:
j. Who and which:

(Newspaper writers often use that for which. For example: The automobiles that collided were going westbound on Fifth Avenue . . . The building that collapsed yesterday was about to be razed . . .)

8. While you're looking at the dictionary, answer the following questions:

a. Is underway, as a verb, one or two words?

b. Is rebirth (a noun) one word or hyphenated?
c. Is recapture (noun or verb) one word or hyphenated?
   d. Is reentrance (noun) one word or hyphenated?
   e. Is reenforce one word or hyphenated?
   f. Is a person hanged or hung?
   g. Does a hammer lay or lie on the table?

9. What reference source would you consult if you wished to check (circle the best answer):
   a. The spelling of a person's surname in your home town: telephone directory; almanac, or Who's Who?
   b. The spelling of Wheaton College in Illinois: almanac; atlas, or Who's Who?
   c. To find out the full name of a noted historian, Pulitzer prize-winner and former presidential aide--Schlesinger? Enter his full name here ________

   d. If you knew that a person did not have a telephone, but that he lived in Huntington, how could you find his address: telephone him; check the city directory; call city police, or check addressographs?
Test yourself: What is the address of Darrell Morris, a loader for Pepsi Cola Bottling Co.? ________
________________________________________.
How did you find out?______________________.

e. What newspaper won a Pulitzer prize in 1960?________________________________________.
f. Is C.H. McKown a member of the West Virginia House of Delegates?_______ What county is he from?___________. How did you find out?______.
g. What would be the best reference for determining the spelling of a small town in West Virginia?______________ (Blue Book; Postal Guide, or Congressional Directory)

Test yourself: What is the correct spelling of BIGBEND in West Virginia?__________. How did you find out?______________.

h. What is the address of Anna Burford in Huntington?________________________. How did you find out?______________.

i. Who lives at 1227 Ninth St. West?____ ________________. How did you find out?______________.

j. Howard W. Carson is a West Virginia legislator. Where was he born?______________.
When?________________________. How did you find out?___
Punctuation

Let's review and demonstrate ways to punctuate news stories.

1. Whenever you're writing about people, the typical way to identify them is:

John Jones, 32, of 1641 S. Broad St., died . . .
Shirley Jones, 3, of 1641 S. Broad St., was struck . . .
Mrs. John Jones, 1641 S. Broad St., was honored today . . .

(Why have we not used Mrs. Jones' age? When a woman is more than 30 years of age it's better to omit this fact unless it's essential to the story.)

If you do not use the age, note in the above example that the "of" is not used.

2. When you have a series of names, ages, and addresses:

The dead are: John Jones, 32, of 1641 S. Broad St.; Stanley Cramer, 42, of 903 Elm St.; Peter Smith, 28, of Smedley Road, and Mrs. Wilbur Axley, 29, of 82 Creighton Ave.

Note that a comma is used before the last name in a series that includes more than two persons.
3. When you use a person's age before his name, write it:

   a. Ten-year-old Robert Baker, son of Mr. and Mrs. Charles Baker, 2619 S. Circle Ave., was struck by an automobile today . . .

   b. The 35-year-old victim was found . . .

   c. A 13-year-old student at Lincoln Elementary School today received the award as . . .

   d. Two-year-old Daren Chase, son of . . .

   e. One-hundred-year-old Paul Moses of 3182 W. Croyden Road, celebrated his . . .

4. Most beginning news writers have difficulty punctuating **appositions**. The dictionary gives some fancy definitions of **appositions**. Generally an apposition, or subordinate clause, adds additional information about a person, place or thing and should be set off by commas:

   a. John Jones, a 33-year-old machinist at Igloo Machinery Corp., was injured . . .

   b. John Jones, a policeman for 45 years, was honored today . . .

   c. Mrs. Wilbur Appleby, a school teacher at Lincoln Elementary School, was presented . . .

   d. The Empire State Building, constructed in 1937, was designed by . . .

   e. Electrons, first described by Dr. Edmund Fisher in 1933, can be traced . . .

   f. Mrs. John Jones, 35, of 1622 S. High St., was rescued today when . . .
5. Some writers have difficulty knowing when to use a comma, semicolon or dash. Here are rules-of-thumb:

a. The comma allows the reader a slight pause—a momentary chance to catch his breath. For example:

The mayor jumped to his feet, slammed the budget on the desk, and left the conference room.

Club members present were John Jones, Peter Smith, George Simpkins, Drexel Gaynor and Timothy Wills.

b. The semicolon brings the reader to a full stop. For example:

The mayor stormed out of the meeting; however, he returned shortly afterwards to resume debate.

Contrast the above lead and punctuation with:

The mayor stormed out of the meeting, but he soon returned to resume debate.

c. The dash usually precedes and/or follows a fragmentary phrase. For example:

"We'll never surrender—not in 1,000 years!" exclaimed the nation's president.

Temperatures plunged today to 25 degrees below zero—a record low for the city.

The meeting lasted four hours and 25 minutes—one of the longest on record; but when it was over the corporation had a new president.

YOU WILL NOW BE GIVEN MARKED NEWSPAPER STORIES.

STUDY THE PUNCTUATION IN THESE STORIES.
Wordiness

The chief fault of beginning news writers is their tendency to be wordy—to use three words where one would do the job. Here are some examples of wordiness as compiled by Dr. Edgar Dale of The Ohio State University:

a project that has been completed—a completed project
at a later date—later
at the present time—now
at an early date—soon
due to the fact that—because
for the month of July—July
for the purpose of determining—to determine
if it is deemed satisfactory—if satisfactorily
in the event that—if
in the amount of $100—$100
is capable of delivering—can deliver
it is his understanding—he understands
it is possible that—perhaps
made it possible for—enabled
make a careful analysis—analyze (since an analysis should be carefully done)
they are in the process of developing—they are developing
they are not in a position to—they cannot
Exercises

See if you can spot, and eliminate, wordiness in the following examples. Rewrite each example in the space provided below the example.

1. The boy, who was three years old, managed to escape from the wreckage and summoned help.

2. The automobile, which was totally demolished, had skidded a distance of 150 feet and smashed into the retaining wall that was made of concrete.

3. In the event that the council is unable to meet, Mayor John Smith said he would proceed to issue the proclamation.

4. The election, which is held annually, will be conducted on Aug. 29.

5. The collision, which involved three cars, took place three miles from the eastern edge of the city of Huntington.
6. The fire, which lasted for five hours, turned the sky over Huntington to a red color and drew a crowd of people, estimated at 3,000, to watch the blaze.

7. The report by the Safety Committee will be made at a later time, according to John Peters, the committee chairman.

8. The cost of the project will amount to $152,000 exactly.

9. The band members, all dressed alike in blue uniforms, paraded smartly at halftime before an estimated 6,000 persons at the homecoming game.

NOW CHECK YOUR REVISION WITH THE MODELS BELOW:

1. The boy, 3, escaped from the wreckage and summoned help.

OR

The three-year-old boy escaped from the wreckage and summoned help.
2. The automobile was demolished after skidding 150 feet and smashing into a concrete retaining wall.

3. If the council cannot meet, Mayor John Smith said he would issue the proclamation.

4. The annual election will be Aug. 29.

5. The three-car collision occurred three miles east of Huntington.

6. The five-hour fire reddened the sky over Huntington and drew an estimated 3,000 spectators.

7. The Safety Committee will report later, according to Chairman John Peters.

   OR

   The Safety Committee's report will be issued later.

8. The project will cost $152,000.

9. Band members, dressed in blue uniforms, paraded at halftime before 6,000 homecoming game fans.

You are now ready to take the Section III final examination. This test will cover wordiness, attribution, punctuation, and spotting errors. You will be given a tape recording. When you've finished, return the recording and your typewritten stories to the instructor.

You may, if you wish, review Section III before requesting the tape recording.
Appendix E

SECTION IV -- LIBEL

This section concerns *libel*--defaming a person's good name and reputation, causing him to be shunned by friends, costing him his job or otherwise damaging him. You *libel* a person in print. Libel is *written* defamation. Slander is *oral* defamation.

If you *write* something about a person that harms his good name or reputation, you commit a ______. If you *say* something about a person that harms his good name or reputation, you ______ that person. Both libel and slander are defamations. Defamation means to defame, bring dishonor upon someone, disgrace him--either in writing or orally.

Since you are learning how to write for newspapers, your chief concern will be with written defamation, or ______. However, what you learn about libel will apply equally to oral defamation (slander).

If you write something that is libelous and a
law suit results, you and your newspaper can defend against it by using one or more of three defenses:

1. **Truth** (but in West Virginia the defense must be truth with good motives and justifiable ends). Some states permit the defense of truth—truth itself, without tacking on the qualifiers of good motives and justifiable ends. But in West Virginia, as in some other states, truth alone is not a defense against a libel action. If you're working for a newspaper outside West Virginia, be sure to find out what the law is regarding this defense.

2. **Privilege** is another defense. This means that certain government units, and reports by these units, are privileged. You may print an accurate and fair account of what is said before these government groups, or print their reports and accounts of their official actions, without fear of committing a libel—even if what is said, done, or reported is untrue.

What groups and reports are protected by privilege? Some of them are: official proceedings before the U.S. Congress, all duly constituted courts (except, in some states, justices of the peace and police courts), state legislatures, duly-appointed federal and state commissions, and some—but not all—appointed
investigative committees. However, a congressman or state legislator is not surrounded by the aura of privilege when he speaks outside the formal sessions of Congress or congressional committees--unless what he is saying previously was said during such formal sessions. Nor is the testimony of a witness at a court trial privileged if his comments are made outside the courtroom or are not a part of the official proceedings of that court. Only those comments and actions which are part of official proceedings of congress, courts, commissions, etc., are privileged.

Certain public records are privileged, such as grand jury indictments, warrants charging the commission of crimes, jury verdicts, etc. A police "blotter," which may log arrests, complaints, etc., is not a privileged record. If an entry on the "blotter" is in error, and this erroneous information is published, a libel action could result.

Whenever a report or proceeding is privileged, and provided that a reporter accurately reports the proceeding or official action, no libel occurs--even if, for example, a warrant or indictment unjustly accuses a person of a crime or a congressman says something blatantly untrue about someone.
You may wonder why there is such a thing as privilege. Privilege—and the protection it affords—allows a congressman, for example, to stand on the floor of Congress and say things without fear of slandering someone. If he had to personally verify everything that he uttered, he'd rarely, if ever, be able to say anything critical about anyone.

3. The third defense against a libel action is fair comment and criticism. People who are in the "public eye," who expose themselves to public comment by the nature of their jobs (politicians, actors and actresses, local, state and federal officials—to name a few) are subject to fair comment and criticism. And the U.S. Supreme Court recently declared that comments about the kinds of people mentioned above are not libelous except in extreme cases of untruthfulness and where actual malice can be proved. What this means is that your newspaper could say some very unfair things about public officials—if it is not a responsible newspaper—and these officials would find it extremely difficult to win a libel judgment.

Summary: There are three defenses to a libel action. They are (in West Virginia) truth with good
motives and justifiable ends, privilege, and fair comment and criticism.

Exercises

Let's see if you can spot the defense that your newspaper could use if a libel action resulted from the following situations:

1. You hear that a school principal beat a student. You check and find out that the parents of this boy have filed a complaint charging the principal with assault. You write a story which states that the principal has been accused of assault in a complaint signed by the student's parents. The principal threatens to sue. What defense could you use if he should bring a libel action?

2. A congressman stands on the floor of Congress and charges a citizen with being a member of the Communist party. There is no evidence that the charge is true. Could you write a story about this, quoting the congressman's charge? Yes or No

3. A grand jury indicts 15 persons on different charges; that is, returns "true bills" or indictments which charge these persons with certain crimes. Can you use the names of the persons and tell what the charges are? Defend your answer:

4. The police chief in your city tells you that a lawyer in your city is a criminal. "This guy," the chief says, "defends every crook in town and he receives a lot of stolen goods. One of these days we're going to catch him." Could you print this? Defend your answer:
5. You're covering a trial in Common Pleas Court. A witness is testifying. You personally believe that the witness is lying, but you feel that the testimony is important to the story. Can you report what the witness said without fear of libeling someone? Defend your answer:

6. A city councilman has not attended a council session in nine months. He says he's too busy. Could you write an editorial saying that he should not be re-elected because of his indifference toward city affairs? Defend your answer: _________________________________

7. Could you report the fact that a warrant has been issued charging a prominent businessman with first-degree murder, even though you have no idea if the businessman committed the murder? Defend your answer:

8. A judge, in his instructions to the jury, says, "The weight of the evidence shows the defendant to be guilty." Could you quote the judge even though the jury later brings in a verdict of innocent? Defend your answer:

9. The Interstate Commerce Commission, or the National Labor Relations Board, reports something quite critical about a prominent person or his firm. Could you report this criticism?

CHECK YOUR ANSWERS AND REASONS FOR THE ANSWERS WITH THOSE BELOW:

1. Privilege. The formal complaint by the parents is a privileged record.

2. Yes. Privilege. So long as the congress-
man is on the floor of Congress, in committee hearings, or the charge previously had the protection of privilege, then the congressman could not be sued even though he's wrong. If, however, he should make such a charge without the protection of privilege, or if he wishes to waive his immunity, then he could be sued for slander and your newspaper could be sued for libel.

3. Yes. Privilege. But if your newspaper makes a mistake and names a person who has not been indicted, then that person could bring a libel action.

4. No! Not unless you can prove the truth of the chief's accusations (proof that will stand up in court).

5. Yes. Privilege.

6. Yes. Fair comment and criticism.

7. Yes. A warrant is a privileged record.

8. Yes. The judge's comments during the trial— if they are a part of the court record—are privileged.

9. Yes. Privilege—and possibly fair comment and criticism.

Each newspaper employs an attorney, either on retainer or full time. If you, as a reporter, are not sure about what can or cannot be published, then check with the attorney.

No responsible newspaper wants to publish errors in fact, or reckless, unsubstantiated charges—even if the newspaper enjoys the protection of privilege. Sometimes circumstances may force it to do so, although the newspaper should give the accused an opportunity to comment.
Whenever you're dealing with information that is not privileged or does not fall within the protection of fair comment and criticism, REMEMBER this cardinal rule: If you can’t check its accuracy, leave it out. If you’re not certain that a fact or quotation is correct, and you can’t verify it, THEN LEAVE IT OUT. DON'T GUESS OR INVENT. If you’re guessing that a warrant has been issued charging someone with a crime, or that a jury may have returned a verdict of guilty (a spectator may have told you this in the corridor of the courthouse), or you think the mayor said so-and-so about his street superintendent (but your notes are illegible), then check or re-check to verify. If you can't do this, THEN LEAVE IT OUT. Otherwise the chances are good that a libel suit will result.

Writing for Your College Newspaper

You may wonder what libel, and the defenses against libel, have to do with you at this early stage in your writing career. Simply this: you soon will be writing news stories for your college newspaper which, if inaccurate, could result in a libel action against you and your newspaper. Such a possibility exists no matter if you're writing a news story, a headline, a
letter to the editor, a sports column, an editorial, or whatever it might be.

Although you can obtain different opinions on this next statement, you should work on the assumption that there will be no defense of privilege when writing about campus activities, except possibly when the university administration takes formal action in certain matters. This means that the actions of the student court and student senate, when such actions reflect unfavorably upon identifiable persons, should be treated as if they do not have privilege. If a student senator really tears into a person, you'd better not report anything that will hold that person up to public scorn, ridicule, contempt, etc. If you do, a law suit may result. If a student is disciplined for something that, if published, would shame that student (and should you not be able to prove whatever it is in a court of law), you or your newspaper probably should check with a good lawyer before you publish a story identifying that student.

Whether libelous or not, another consideration is "good taste." Most students are fine young men and women. Printed vituperations against them will generally be in "poor taste" and could result in libel actions.
What defenses then does a student reporter or student newspaper have against libel actions? Truth (with good motives and justifiable ends) and fair comment and criticism! You can criticize the student senate, student court, an administrator, a teacher—so long as the criticism is fair. You'd better not report that a teacher is not fit to be a teacher unless you're prepared to prove this in court—and that's where you may find yourself if you make such a charge.

This does not mean that a newspaper does not, when the occasion demands, take risks when writing is critical. The newspaper would be shirking its responsibility if it dodged sensitive and touchy issues; but criticisms can and should be framed within the bounds of FAIR COMMENT AND CRITICISM.

Anyone can bring a libel action against a newspaper—whether or not the newspaper has in fact committed a libel. Conversely, many persons who have been libelled do not bring a libel action because they either do not know the laws of libel, they can't afford to hire an attorney, or for some other reason. The fact that a libel action is filed does not automatically mean that damages will be assessed against the reporter and the newspaper. However, the burden of establishing
TRUTH will rest with the newspaper. If you're relying on the defense of fair comment and criticism, then you'd better be able to show the fairness of your criticism.

In West Virginia, as in more than a dozen other states, TRUTH alone is not enough. You must be able to show good motives and justifiable ends. You may know that a coed suffers from halitosis. This may be true. But what would be your **good motive** for publishing this truth? After all, not even her best friends would tell her.

Here are some situations that you might face as a college newspaper reporter. Indicate if you'd use the story. If so, show what defense you'd use if a libel action resulted. If not, why not.

**Exercises**

1. The president of your college criticizes the student senate for its inactivity.

2. The student senate criticizes the college president for not "exerting forceful and bold leadership." This criticism is in the form of a resolution passed by the senate.

3. A coed is expelled from the university for "lack of morality." a. Would you use her name, knowing the reason to be true? b. Would you use her name, not
knowing if the reason given is true or false? c. Would you write the story, but not use her name or identify her in any way? d. Would you not print the story under any circumstance?

4. One student implies that another student is not fit to run for student senate because of a questionable reputation. He does this in a letter to the editor. Would you print this letter?

5. One student, in his campaign for election to the student senate, calls his opponent "dishonest." Would you use this story?

6. A fraternity is put on social probation by the dean of student affairs. Would you use this story?

7. The newspaper editors disagree with restricted hours for coeds who live in dorms. They feel that the young ladies should be allowed to come and go as they please. They write an editorial criticizing dorm hour regulations. Could you print this editorial?

8. Students are signing a petition which claims that cafeteria food is not properly prepared, dishes are not always clean, etc. Could you write such a story, citing the reasons given in the petition?

9. A student comes to you and tells about being denied certain privileges in the Student Union because of his race. You investigate and discover that his accusation is true. What would you do?
CHECK YOUR ANSWERS AND REASONS FOR THE ANSWERS
WITH THOSE BELOW:

1. Yes. Either truth (with good motives and justifiable ends) or fair comment and criticism—probably the latter.

2. Yes. Either truth (with good motives and justifiable ends) or fair comment and criticism—probably the latter.

3. a. No. No court of law has found her guilty.  
   b. No. No court of law has found her guilty.  
   c. No. This story would be too trivial.  
   d. No. One student does not a university make. If there was widespread immorality, then a story would be necessary.

4. No! A student is not a judge of another student's fitness to run, especially since the candidate's reputation is being questioned.

5. No. Only if your newspaper, or you, could prove the truth of the accusation. Even if the accusation could be proven in court, the desired ends might be accomplished if you let that candidate know you have the goods on him and that he ought to withdraw from the contest.

6. Yes. This is an administrative action which might serve as a warning to other social groups on campus.

7. Yes. So long as your comments are fair and you do not stoop to name-calling.

8. Yes. The cafeteria serves the public (students). As such, it opens itself to fair comment and criticism. You would not imply, however, that the allegations in the petition are true. You should give the food director a chance to reply to the charges made in the petition.
9. Write the story detailing the facts, including comments by the student and Student Union officials. Again, the Union serves the public and opens itself to fair comment and criticism.

**Poor Taste**

Sometimes your newspaper will have a legal right to publish a story; that is, one which is not libellous because one of the three defenses against a libel action would be applicable. Yet the newspaper might not publish the story out of consideration of "good taste" or "poor taste."

You cannot libel a race of people—only identifiable individuals; but you might write something about a race of people that would be extremely offensive and in "poor taste." Most of us are victims of prejudice and we have a tendency to think in terms of stereotypes. We must guard against this when we're reporters. True, we may have to quote people with whom we disagree; but we can, in good conscience, quote others in order to present a balanced report. As reporters, we should not be rumor-mongers, Red-baiters, white Northerners, white Southerners, Southern Negroes, Northern Negroes, atheists, Protestants, etc. We should be reporters—as objective and uninvolved emotionally as is humanly possible.

Whenever we write on a controversial issue, we should make every effort to write a balanced, objective
report— one that records different viewpoints involved in a controversy; that is, if these viewpoints are in

Good taste is hard to define and difficult to achieve. Good taste does not mean that a reporter ignores ugly facts. It does mean that he can write such facts without violating good taste. For example:

In January, 1967, three American astronauts died in a simulated Apollo countdown. No responsible newspaper or wire service (Associated Press and United Press International) needed to describe what must have happened to the astronauts' bodies after the oxygen fire occurred. It was sufficient to report that oxygen burns at some 1400 degrees F. The reader can use his imagination to supply missing details when such details would be gruesome.

Similarly in fire and accident stories there is no need for the reporter to write: the headless body was mutilated beyond recognition with bits and pieces strewn along the tracks. It would be sufficient to write: "One person was killed today when an express train struck a stalled automobile five miles east of Huntington."

Sometimes it is necessary to use such phrases
as "the charred remains," "the headless body," "the mutilated body," "third degree burns on the face and hands," etc. But you generally will not need to go into more elaborate details or descriptions of murders, accidents, fires, etc. Remember: someone may be reading this type of story while eating breakfast, lunch or dinner. Grisly details will not help the appetite. Similarly, children of all ages will be looking at your newspaper. Keep them in mind while writing news stories.

This does not mean that you FALSIFY for the sake of good taste. NO! NO! You can omit facts which are in poor taste, but do not falsify or invent; or you can write about them in such a way that they will not be offensive.

**Sensitive News Stories**

There are certain news beats which, by their nature, produce sensitive stories; that is, stories that are potentially libelous. Chief among these are the police and court beats.

**Police Beat**

1. Do not write, or imply in your writing, that a person is guilty just because that person has been charged with a crime, indicted by a grand jury, or is
being sought by police as a suspect. That person is innocent until—or if—he is convicted in a courtroom. Until that time nothing you write should in any way indicate that the person is guilty. Otherwise you are interfering with due process of law (which includes the presumption of innocence and the right to a fair trial) and inviting a libel action should the person later be found innocent.

How, then, can you write stories which deal with persons who have been arrested or who are being sought in connection with crimes?

Until a person has been formally charged with a crime (which means that a warrant has been issued for the arrest of that person, or an indictment has been voted by a grand jury naming that person and charging him with the commission of a crime), you should be extremely careful if you identify the person. You can, however, write stories which conceal the identity of the person being sought—even if no warrant has been issued:

A 46-year-old Huntington man is being sought today for questioning in the shotgun-slaying yesterday of Mrs. John Jones, 41, of 4141 92nd St.

OR

A man suspected of killing a Huntington house-
wife is being sought today for questioning by local police.

OR

Huntington police are searching for a 46-year-old man in connection with the shotgun-slaying of Mrs. John Jones, 41, of 4141 92nd St.

In the above stories, you would be prudent not to identify the suspect by name and address until--and if--a warrant is issued charging the 46-year-old man in the slaying of the housewife. Some newspapers, however, would identify the suspect and use such phrases as "sought for questioning in connection with the shotgun-slaying . . . ," or just "sought for questioning."

2. When a warrant has been issued by a judge, or an indictment has been voted by a grand jury, the warrant and indictment will show what charge (or charges) has been lodged against the person named in the warrant or indictment.

Most reporters simply ask police if a warrant has been issued and who is named in the warrant. This can be dangerous since a police officer could mistakenly identify a person. So long as you never run across a policeman who makes such a mistake, this method of getting information will be all right. But if you have any reason to doubt a policeman's memory, or his command of the
facts, you'd better call the judge who issued the warrant and verify the name and the charge given in the warrant.

A warrant is a public record. It is a privileged record. You have access to such a record because it is a public record. Any citizen has a right to inspect such a record. As a reporter, you represent the public.

When a warrant has been issued, you could write a lead that begins:

John Smith, 46, of 3226 Eighth Ave., was charged today with first-degree murder in the shotgun-slaying of a Huntington housewife.

OR

Police today arrested John Smith, 46, of 3226 Eighth Ave. on a charge of first-degree murder in the shotgun-slaying of a Huntington housewife.

DO NOT WRITE:

John Smith, 46, of 3226 Eighth Ave., who murdered a Huntington housewife, was arrested today by Huntington police.

The assumption in the two "safe" leads is that the warrant specified first-degree murder (not manslaughter, second-degree murder, or something else). Even if the warrant is in error (names the wrong person through a clerical error), no libel action could result because the record is privileged. Your newspaper, of course, would hasten—out of a sense of fair play—hasten to correct such an error should it happen.
An indictment, or true bill, is returned by a grand jury. It is a charge or accusation made against the person named in the indictment. REMEMBER: the presumption of innocence remains with the person indicted until--or if--he's convicted.

The grand jury considers evidence presented by the prosecutor. If, in the jury's opinion, there is sufficient evidence to warrant holding a person for trial, the jury will vote a true bill (an indictment). The indictment or true bill, once it's been made public (that is, the person has been arrested), is a privileged record. Once it's been made public, you could write:

A 46-year-old Huntington man was indicted today in the shotgun-slaying of Mrs. John Jones, 41, of 4141 92nd St.

OR

The Cabell County grand jury today returned an indictment against John Smith, 46, of 3236 Eighth Ave., in the shotgun-slaying of a Huntington housewife.

OR

An indictment was returned today charging a 46-year-old Huntington man with the shotgun-slaying of Mrs. John Jones, 41, of 4141 92nd St.

DON'T WRITE IT:

John-Smith, 46, of 3236 Eighth Ave., was indicted today for the shotgun-slaying of a Huntington housewife. (Use the word "in"—rather than "for"—as a "safer" way to write this lead.)

4. Anyone can file a complaint against someone
else (although the complainant can later be sued for false arrest). A warrant then can be issued for the arrest of the person named in the complaint if a judge believes that the complaint has some basis in fact. To distinguish between a complaint and a warrant, write it:

A complaint was filed today charging John Smith, 23, of 3236 Eighth Ave., with disturbing the peace.

The complainant, Mrs. John Jones, 3234 Eighth Ave., alleges (charges) that Smith mows his lawn at four o'clock in the morning.

Smith was arrested, posted $500 bond, and is scheduled to appear Feb. 24 before Municipal Court Judge Harry Landon.

5. Once a person is accused of a crime, a certain judicial process is usually followed (although this varies from state to state). The accused person is brought before a judge for arraignment. At this arraignment, the accused person (through his attorney—a court-appointed attorney, if necessary) enters a plea of guilty or innocent to the charge(s). If the offense charged in the indictment or warrant is not first-degree murder, the judge may set bond (such as $10,000 in the case of a person charged with second-degree murder). If the accused person can post bail, he can be free until the trial is over and a verdict returned. If the defendant cannot post bail, he is held in jail in
lieu of bond until a verdict is reached (and don't write—verdict rendered; fat is rendered, not verdicts).

Thus, in a second-day story on John Smith, the accused murderer of Mrs. Jones, you might write:

John Smith, 46, of 3236 Eighth Ave., entered an innocent plea today at his arraignment on a charge of first-degree murder.

Smith, accused of slaying Mrs. John Jones, 41, of 4141 92nd St., was returned to Cabell County jail to await trial.

If the offense charge is a bondable one, and bail was posted, you might write:

John Smith, 46, of 3236 Eighth Ave., pleaded innocent today when arraigned on a manslaughter charge. He posted $5,000 bail and was freed pending trial in Circuit Court.

6. A preliminary hearing usually is conducted after a warrant has been issued and the accused person has been arrested. The purpose of the preliminary hearing is to determine if there is sufficient evidence to hold the suspect for further legal action.

A preliminary hearing is usually conducted in a lower court than the one in which the accused will be tried (if a trial results). The purpose of the hearing is to expedite the setting of bond, the posting of bail, or (if evidence is lacking) to free the accused from custody.
A U.S. Commissioner (and these commissioners are located regionally throughout the United States) is empowered to conduct a hearing for persons accused of federal crimes. These hearings are similar to preliminary hearings, but the U.S. commissioner cannot accept a plea of innocent or guilty. Such a plea can only be entered before a federal judge.

As with county and state grand juries, there are federal grand juries which can return indictments. An indictment would be followed by arraignment; arraignment would be followed by trial.

A warrant would be followed by arrest of the accused; arrest would be followed by a preliminary hearing (or the suspect might be bound over to the grand jury to await jury action), and the preliminary hearing might be followed by a trial.

**Court Stories**

Stories about trials are libel-prone, although the danger is not nearly so great as in initial stories dealing with arrest. The important thing to remember is that UNTIL A VERDICT HAS BEEN RETURNED, THE ACCUSED PERSON IS INNOCENT.

Anything said by witnesses, attorneys, or the judge during the trial, or any action taken during the
trial, is privileged if it is a part of the official proceedings. Privilege does not—NOT—extend to comments made during recesses or adjournments of the trial or to whatever has been ordered stricken from the records.

You can quote—directly or indirectly—anything said or done while in court—if the court is in session. For example, you could write:

The witness, a former wife of the defendant, testified that on numerous occasions he had threatened her.

"He once picked up a butcher knife," she said, "and threatened to kill me. I'll never forget that day!"

YOU COULD NOT WRITE:

As the witness pointed an accusing finger, the defendant squirmed like a guilty man and wiped perspiration from his brow.

If the defendant jumped to his feet during the trial and said, "I did it! I did it! I killed her. Take me out of here." Could you print his statement?

Give your reason: _______________________.

Yes or No

In covering trials, you need to know:

1. A hung jury is a jury unable to reach a verdict. A hung jury does not mean that a defendant goes free. He can be re-tried on the same charge(s).
2. Once a defendant has been found innocent, he cannot be tried again on the same charge—even if new evidence is uncovered which proves conclusively that he committed the crime.

3. A lawyer can appeal a verdict of guilty to the next higher court, claiming errors in courtroom procedure or violations of the defendant's constitutional rights. The higher court can reject the appeal, reverse the decision (by the judge) or verdict (by the jury) and order a new trial; or the higher court could free the defendant outright on the grounds that he was illegally tried and convicted.

Exercises

1. A defamation can be written or oral. If written, then it's ________.

2. There are three defenses to a libel action. In West Virginia, they are: ______ ______ ______; ________, and ______ ______ ______.

3. A congressman stands on the floor of Congress and makes an accusation. You could report this without fear of libel because you're protected by ________.

4. One public official criticizes another public official during a political campaign. You could report this without fear of libel—if the criticism is fair—because of the protection of ______ ______ ______.

5. A warrant is issued charging a man with a crime. You can identify this man and report that he's been charged with a certain crime. Even if the man did
not commit the crime and later is found innocent, he could not win a libel judgment against your newspaper because________________________.

6. You have substantial evidence that the city treasurer is stealing tax money. You could report this because______________________________________________.

7. The best rule to follow when a question of fact arises is: IF YOU CAN'T CHECK IT OUT _______.

8. Most of the stories you write for the college newspaper will be safe because of privilege. T or F

9. You might decide not to include grisly facts in a story on the grounds of ____________.

10. A warrant is issued by a judge. It_______a person with a crime.

11. Write a second-day story based on the following facts:

Common Pleas Court Judge James Maloney. He issued a warrant. Did this in the morning. This morning. The warrant identifies a person (in other words it's not a John Doe warrant). This person is identified as Charles Corothers. Corothers lives at 1822 Fifth Ave. Corothers is 18 years old. This warrant says that Corothers is to be arrested on a charge of first-degree murder. The murder victim is Nancy George, 18, 1821 Fifth Ave. Miss George was killed last night in her room. Strangled to death. Police found her body at 9 p.m. Silk stocking around her throat. She died of strangulation, the coroner ruled. She was a saleswoman at Anderson-Newcomb Department Store. Corothers was arrested at 10 a.m. this morning in front of Anderson-Newcomb Department Store by two detectives. He offered no resistance. The two detectives: Paul Fry and George Knuder. No preliminary hearing yet. Corothers being held in the Cabell County jail. He is a salesman for the L.B. Timmons Tobacco Co., 822 Fourth St. He's married and the father of two children: Sam, 1, and Martha, 8. Corothers never arrested before, but he sure did look mean this morning in the county jail.

Now write a second-day story for the P.M., or
afternoon, newspaper, since the A.M., or morning, newspaper already printed the story of the murder. When you're finished, show the story to your instructor who will examine the work you've done in Section IV.

12. What is an indictment?

13. Is it safe to report an indictment

Why?

14. What is the purpose of an arraignment?

15. Can a U.S. commissioner conduct a hearing? Can he accept a plea of guilty or innocent?

16. Under what conditions might you not be able to report testimony, or a lawyer's statement, given at a trial?

17. A hung jury means that a defendant cannot be tried again on the same charge: T or F

CHECK YOUR ANSWERS AND REASONS WITH THOSE BELOW:

1. Libel.
2. Truth with good motives and justifiable ends; privilege, and fair comment and criticism.
3. Privilege.
4. Fair comment and criticism.
5. Privilege.
6. Truth with good motives and justifiable ends. (What better motive could you have than to rid the city of a thief?)
7. LEAVE IT OUT.
8. False. Your two main defenses will be truth
with good motives and justifiable ends, and fair comment and criticism.

9. Good taste.
10. Charges or accuses.
12. It is a privileged document voted by a grand jury when the jury believes that sufficient evidence exists to hold that person for trial. An indictment is the same as a true bill. It is an accusation, a charge—but the presumption of innocence remains with the defendant.

14. An arraignment calls for a plea to be entered and can result in bail being set by the judge so that the defendant can be free until the time of his trial.
15. Yes. No.
16. If the judge orders them stricken from the record so they're no longer privileged.
17. False.

After the instructor has reviewed your work in this section and indicated that your news story (question No. 11) is satisfactory, you may take the Section IV examination. Ask the instructor for the Section IV tapes, move to the seminar room and start the examination.
When you're writing a news story, you must put certain information in the upper left-hand corner of the first page of the story. Although this will vary from newspaper to newspaper, we want you to type your name, the date you wrote the story, the course in which you're enrolled, two key words which describe the story you're writing, and the page number:

Mary Smith
March 1, 1967
J-201
Honors Seminar
1-1-1

More

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Start typing about one-half inch below the page number (1-1-1). Leave about an inch margin at the left and right sides of the paper, and at least one-half inch margin at the bottom of the first page. ALWAYS DOUBLE SPACE AND MAKE ONE CARBON COPY. The carbon copy is for the instructor. The original, which should be edited in PENCIL, goes into the wire basket in the newsroom marked "News." If your story runs longer than one page, write or type "more" at the bottom of the page. Your second page should be headed:

Mary Smith
Honors Seminar
2-2-2

______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

More or ####

When you reach the end of the story either
type: #### or 30, which tells the linotype operator
that he's reached the end of the story.
You will write your news story on paper that is the same width as this paper, but the paper will not be as long as it is wide. Nevertheless you will type across the width of the paper, just as these lines are typed.

Taking Notes

Each reporter develops his own system for taking notes. You will do the same. Most reporters develop a system of abbreviations. If, for example, a speaker referred quite often to American foreign policy, the reporter could record these three words in his notes as A.F.P. He should, however, write out American foreign policy (A.F.P.) the first time and show the letter abbreviation. Otherwise it might be difficult for him to figure out what A.F.P. means when he tried to read his notes.

Whenever you're taking notes based on telephone or personal interviews, get into the habit of using phonetic spellings to check important names. For example, suppose you were using the telephone and this news source said, "Ron Carnham led the police department raid on this bootleg joint." You should spell Ron Carnham's name phonetically: "Ron is spelled R like
in Roger, O like in oboe, N like in Nancy. Carnham
is spelled C like in Charles, A like in Albert, R like
in Roger, N like in Nancy, H like in Hotel, A like in
Albert, and M like in Mary."

If you don't use phonetic spellings, you may
discover that the news source said "Con" instead of
"Ron," and "Carmhan" instead of "Carnham." Letters like
M and N sound quite a bit alike. So do some other
letters. So make sure. Spell important names phonetic-
ally.

Try spelling the name Mansfield phonetically;
then write out the phonetic spelling below:

M like in ________; A like in ________; N
like in ________; S like in ________; F like in
_______; I like in ________; E like in ________;
L like in _________, and D like in _________.

**Personality**

No two reporters have the same personality.
Most news sources, however, will be reluctant to talk
with you if you're the shrinking-violet type or, at
the other extreme, the loud-mouth, braggart type. When-
ever you introduce yourself, do so in a firm, confident
voice: "I'm Mr. Paul Smith, reporter for The Parthenon.
I'd like to ask you some questions." Or, on a more
positive note, introduce yourself and then ask the news source a question.

**Reporting Tips**

1. Whenever possible get your information from the top-most news source: the mayor, the governor, the university president, the head of an agency, etc., instead of from the mayor's secretary, the janitor in the governor's office, a student assistant in the university president's office, etc. Do not, however, overlook the importance of a secretary or an assistant in providing you with "tips" that might lead to stories.

2. If you're doing undercover work for your newspaper, you'll not want to identify yourself as a reporter. At other times, however, you should identify yourself as a reporter.

3. Most reporters dislike--because there is a suggestion of censorship--the idea of showing their stories to the person who gave the facts for the news story. If, however, a story is quite technical, there is nothing wrong with showing the story to your news source prior to publication. Better still, if you're uncertain about the facts, call or contact the source again and seek verification.

4. Always save your notes for a few days after
your story has appeared in print. Why? You can refer to them if the accuracy of the story is questioned. The notes can be dropped in a desk drawer and periodically thrown away.

5. If you go to a meeting which is thought to be a public meeting, and you're barred from that meeting, call your city editor for instructions. As a representative of the public you have a right to attend public meetings. If you are denied admission, or refused access to public records, ask your city editor for advice about what you should do next. Don't raise a big fuss only to find out later that your newspaper will not back you up with critical editorials.

Style

Each newspaper has its own style. Style includes such things as when to abbreviate, how to write street addresses, how to identify persons, how to handle time elements, etc. The Parthenon has a stylebook. You've been asked to read it. This stylebook includes the style used by the Associated Press, which many daily newspapers have adopted as their own.

At this time you should review the stylebook, paying particular attention to Parthenon style. When you've done this, ask for copies of The Parthenon and
read several news stories, circling style errors that you've detected. Show these to the instructor.

At the same time show the instructor the results of the following style examination:

**Style Exam**

(Copyedit the following examples of news writing and make them conform to Parthenon style. Do not rewrite the examples. Correct them by editing the copy. Assume that the information is correct.)

1. The Veterans Club will meet at 3 o'clock P.M. February 26 in Science Hall Auditorium.

2. Dr. George Clark, ass't professor of soc. studies, will discuss "The Draft Law And You" at a meeting tomorrow afternoon at 3 p.m. in the Campus Christian Center.

3. Students attending the seminar were Nancy Billings, Huntington sophomore; Charles Smerz, Chester, Pennsylvania, junior; Roger Craig, Chesapeake, O., senior; and Paul Ackerman, Charleston, W. Va., senior.


5. George Aiken, Zoology Instructor, will show slides during the demonstration.
6. Registrar Luther Bledsoe announced the record enrollment Oct. 1st. Bledsoe said, "The fall enrollment represents an increase of 1032 full-time and part-time students over last fall's record number".

You are now at the FINAL EXAMINATION stage. This examination will be given to the entire class. You may review previous sections of the programmed instructional materials if you wish and if you have the time.
Appendix G

PRE-INSTRUCTION NEWS WRITING TEST

(Instructions: Although you may never have written a news story, see how well you can write a 5- or 6-paragraph news story based on the facts below. Write the story on a separate sheet of paper. There is no time limit.)

A man. He's named George S. Wilcox, 24 years old. He lives at 1822 S. Rutgers Ave. He was hit by a car. Car driven by a woman. Her name is Mrs. Martha Evers. She's 27 years old. She lives at 4212 South Road. Wilcox was crossing an intersection at the time he was hit. The intersection: Fifth Avenue and Sixteenth Street. Wilcox was taken to Cabell-Huntington Hospital after the accident. Injuries: broken leg, crushed chest, head injuries. He died early this morning. He had been listed in critical condition at the hospital.

Mrs. Evers was charged with manslaughter after the pedestrian died. This charge filed this morning. She appeared before a justice of the peace after the charge filed. JP's name is Jack Smithers. He set her bail at $5,000 dollars. She was bound over to the grand jury. Cabell County grand jury, that is.

Wilcox is survived by his mother. Her name is Mrs. Ruth Anne Wilcox. He also is survived by two sisters. Their names are Linda and Nancy. All three live at home. No funeral services as yet for Wilcox. They're still pending. He was a brakeman for the C&O railroad.

The accident occurred at 10:15 p.m. last night.

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Appendix H

A TEST OF LOGICAL REASONING ABILITY

Directions: This is a test of your ability to reason logically. Each test item contains two or more premises and several conclusions. You are to assume that all premises are true even if they disagree with facts you know to be true. You are to indicate, by writing a "V" (for valid) or an "I" (for invalid) in the space beside each conclusion, whether or not that conclusion may be validly drawn from the stated premises.

There are 15 items in the test. Some items may have no valid conclusions; some may have more than one. You will have 5 minutes in which to work. Do not begin until directed to do so, and come to a complete stop when directed.

Example:

I. Premises: A) All men are mortal. B) My professor is a man.

Conclusions:

1) My professor is mortal.
2) My professor is human.
3) All mortals are men.
4) All professors are mortal.
5) All professors are men.

Discussion: In this example, the only conclusion that may be validly drawn from the premises is No. 1. Therefore, conclusion 1 should be marked with a "V" and all other conclusions should be marked with an "I."

Don't turn page until directed to do so.
I. Premises:  A) All trout are mammals.  
  B) All mammals have hair.  

Conclusions: 
  ______  1) All trout are aquatic.  
  ______  2) Fish are not mammals.  
  ______  3) All trout have hair.  
  ______  4) All mammals are trout.  
  ______  5) All hairy mammals are trout.

II. Premises:  A) Some birds have long tails.  
  B) All dogs have long tails.  

Conclusions: 
  ______  6) All dogs are birds.  
  ______  7) Some birds are dogs.  
  ______  8) Some birds are not dogs.  
  ______  9) All long-tailed animals are dogs.  
  ______ 10) Some long tails belong to birds.

III. Premises:  A) Susan is a pretty girl.  
  B) Some pretty girls are not married.  

Conclusions: 
  ______ 11) Susan is not married.  
  ______ 12) Susan is married.
IV. Premises:  
A) My hat is either brown or gray.  
B) My hat is not gray.  

Conclusions:  
13) My hat is not brown.  
14) My hat is gray.  
15) My hat is brown.  

V. Premises:  
A) None but the pure are secure.  
B) No student is secure.  

Conclusions:  
16) All students are pure.  
17) Some pure people are not secure.  
18) All students are not pure.  
19) No student is pure.  

VI. Premises:  
A) Snakes and lizards are reptiles.  
B) Reptiles and birds are not oviparous.  

Conclusions:  
20) Snakes are not oviparous.  
21) Birds are reptiles.  
22) Lizards are oviparous.  
23) Some snakes are birds.  
24) Some reptiles are snakes.
VII. Premises:  
A) All teachers are men.  
B) Some men are stupid.  

Conclusions:  
25) All teachers are stupid.  
26) Some teachers are stupid.  
27) No teacher is stupid.  

VIII. Premises:  
A) I am neither tall nor short.  
B) I am not tall.  

Conclusions:  
28) I am short.  

IX. Premises:  
A) Bob likes Bill.  
B) Whoever likes Bill likes Bert.  
C) Bob likes only brawny boys.  

Conclusions:  
29) Bert is brawny.  
30) Bill is brawny.  
31) Bob likes Bert.  

X. Premises:  
A) If I were President, I would be worried.  
B) I am not President.  

Conclusions:  
32) I am not worried.  
33) Only worried people are President.
XI. Premises: A) All men are mortal.
   B) Some mortals are not men.
   C) Robert is not a man.

Conclusions:

_______ 34) Robert is a mortal.
_______ 35) Not all men are mortal.
_______ 36) Robert is either mortal or not mortal.

XII. Premises: A) All Presidents were politicians.
     B) Hoover was an engineer.
     C) Men can have only one profession.

Conclusions:

_______ 37) Hoover was not President.
_______ 38) Hoover was both President and an engineer.
_______ 39) Hoover was not a politician.

XIII. Premises: A) All furniture is manufactured.
      B) All chairs are seats.
      C) All seats are manufactured.

Conclusions:

_______ 40) Chairs are furniture.
_______ 41) Chairs are manufactured.
_______ 42) All seats are chairs.
XIV. Premises:  A) John loves Mary.
              B) Mary loves Jim.
              C) Jim loves Martha.
              D) Martha loves John.

Conclusions:

______ 43) John loves Martha.
______ 44) Mary loves John.
______ 45) Jim loves Mary.
______ 46) Martha loves Jim.

XV. Premises:  A) Missing articles are either stolen or lost.
              B) Harry is a sneak thief.
              C) My watch is missing.

Conclusions:

______ 47) Harry stole my watch.
______ 48) My watch was lost.
______ 49) My watch is either lost or Harry stole it.
______ 50) Either Harry or someone else stole my watch or else it was lost.
Appendix I

RESTRUCTURING TEST

Directions: Below are 10 paragraphs. You are to indicate which one, in your opinion, is best organized. At the left side of the paragraph, designate it as "1."

Proceed to the paragraph which, in your opinion, is the next best organized paragraph and mark it "2." Do this for the 10 paragraphs. Do not let the style or content of the paragraphs influence your judgment. THERE IS NO TIME LIMIT.

Lights were shining from every window, and there was a most delicious odour of roast goose in the streets, for it was New Year's Eve—she could not forget that.

She found a corner where one house projected a little beyond the next one, and here she crouched, drawing up her feet under her, but she was colder than ever. She did not dare to go home for she had not sold any matches, and had not earned a single penny.

After the death of Saul, David ruled Israel for forty years. Once he incurred the king's anger and was driven ignominiously from the court. As a shepherd lad he had lived in the hills of Judea. He had vanquished the mighty Philistine with his sling-shot. The sad faced Saul was charmed with his songs. He was the sweetest singer in all of Israel.
Michigan is a hunter's paradise. Deer, quail, and other kinds of wild game abound in the woods of the upper peninsula. Michigan has perhaps more coast line than any other state in the union. Along the coast almost every cove affords an ideal location for vacation camps. The lakes that fashion the state into two peninsulas, the upper and lower, abound in fish. The phenomenal development of the automobile industry during the last half-century has made Detroit one of America's largest cities.

Television, radio, and the movies are easily dominated with the prejudices of those who favor the system of capitalism. With private ownership, a company is free to broadcast and film only what it wishes. If the government should gain control there is no doubt as to whether forced politics would be the main objective. Radio and television broadcasts can easily influence the people of all ages, sex and types who make up the audience.

Bright lights were coming from every window, and there was a very good smell of cooked goose, because it was the night before the New Year—yes, that came into her mind. In an angle between the two houses, one of which came farther than the other, she took a rest, seating herself on the sidewalk and making an attempt to keep herself warm. She had put her little feet under her, but she was unable to keep off the cold, and fear kept her from going to her father's house because she had got nothing in exchange for her matches and was unable to take back any money.

David, the shepherd lad who lived in the hills of Judea, was the sweetest singer in all Israel. It was he who charmed the sad-faced Saul with his songs. It was he, too, who vanquished the mighty Philistine with his slingshot. Later he incurred the anger of Saul and was driven from the court. But upon Saul's death David came back and ruled Israel for forty years.
Since the major cost of advanced education, if the student is away from home, is board and lodging, one can argue that as far as possible the expansion of public education beyond high school should be arranged locally. To offer equal opportunities we should have to envisage using public funds to provide years of free board and room for a considerable fraction of our high school graduates. There are various types of professional and vocational education which can be given at only a few centers in even a very populous state.

He was a loud-mouth. He always had a story ready to tell. His stories were ones he had picked up in barrooms. It didn't matter that decent people were nearby. He had to make a noisy display of himself one way or another. He never ran out of ways of doing it.

I took a few steps up the path to the cabin, and then I saw that the drainage water had washed a lot of trash out from under Dellie's house. Up toward the porch, the ground was not clean any more. Old pieces of rag, two or three rusted cans, pieces of rotten rope, and all sorts of things like that had washed out from under Dellie's house to foul her clean yard. It looked just as bad as the yards of other cabins, or worse. It was worse, as a matter of fact, because it was a surprise. I had never thought of all that trash being under Dellie's house.

The great stimulant to herd-instinct is fear; in patriots, the instinct was stimulated by fear of the Germans, but in the pacifists the fear of the patriots produced a similar result. I can remember sitting in a bus and thinking: "These people would tear me to pieces if they knew what I think about the war." The feeling was uncomfortable and led one to prefer the company of pacifists. Gradually a pacifist herd was formed.
Directions: In this part of the Restructuring Test, you have been given five sentences that made up a paragraph. The sentences are in random disorder. You are to put them back into paragraph form so that the paragraph is as well-organized as possible. Indicate at the left margin the order of the sentences from 1 through 5; that is, the sentence that should be first will be marked "1," and so on through sentence "5." THERE IS NO TIME LIMIT.

But his advocacy of parliamentary reform caused him to be driven from England, and he eventually sought a career in Philadelphia.

He purchased an important Philadelphia paper, the Independent Gazetteer, but a recurrent epidemic of the yellow fever induced him to sell out after a few years and move to Raleigh, North Carolina, where he founded another newspaper.

Young Joe learned the printer's trade in the industrial district of Middle England, and had a paper of his own by the time he was twenty-five years old.

To trace the genesis of this paper, we go back to the youth of Joseph Gales, Sr.

There he first worked as a printer, and later became one of the first reporters regularly covering the sessions of Congress.
Directions: In this part of the Restructuring Test, you have been given nine sentences that made up a paragraph. The sentences are in random disorder. You are to put them back into paragraph form so that the paragraph is as well-organized as possible. Indicate at the left margin the order of the sentences from 1 through 9; that is, the sentence that should be first will be marked "1," and so on through sentence "9." THERE IS NO TIME LIMIT.

If included in the story itself, they should be followed by explanations as to how each casualty or item of damage occurred.

Names, however, must be high in the story.

When the casualty list or inventory of property is long, it is impossible to be specific in the lead.

If their number is not prohibitive, they should come immediately after the lead; otherwise they should be included in a box either within or next to the story proper.

The reader judges the importance of the disaster by the size of the casualty list or the number of digits after the dollar sign.

Any one of the elements listed may be the feature of the story at hand.
No formula for writing a disaster story—or any other type of story for that matter—should be accepted as absolute.

Regardless of what is played up, however, the occasion must be identified in the lead by the amount of loss, either in lives or property.

In general, however, the lead of the disaster story should follow the orthodox rule of playing up the 5 W's, giving identification and authority, and playing up the feature.
Appendix J

POST-INSTRUCTION NEWS WRITING TEST

(Instructions: Write a news story of at least 5 paragraphs based on the following facts. Write the story on a separate sheet of paper. There is no time limit.)

A man. He's named Samuel E. Winston, 27 years old. He lives at 822 S. Rogers Ave. He was hit by a car. Car driven by a woman. Her name is Mrs. Eleanor Jones. She's 32 years old. She lives at 212 High St. Winston was crossing an intersection at the time he was hit. The intersection: Fifth Avenue and Sixteenth Street. Winston was taken to St. Mary's Hospital after the accident. Injuries: broken leg, crushed chest, head injuries. He died early this morning. He had been listed in critical condition at the hospital.

Mrs. Jones was charged with manslaughter after the pedestrian died. This charge filed this morning. She appeared before a justice of the peace after the charge filed. JP's name is Jack Lemmon. He set her bail at $5,000 dollars. She was bound over to the grand jury. Cabell County grand jury, that is.

Winston is survived by his mother. Her name is Mrs. Ruth Anne Winston. He also is survived by two sisters. Their names are Lina and Nancy. All three live at home. No funeral services as yet for Winston. They're still pending. He was a brakeman for the C&O railroad.

The accident occurred at 10:15 p.m. last night.
BIBLIOGRAPHY


Postlethwait, S. N. Planning for Better Learning. Lafayette, Indiana: Department of Biological Science, Purdue University, mimeographed, February 3, 1967.


________. "America Needs the Experimental College," commencement address at Antioch College, Yellow Springs, Ohio, June 22, 1963.