THIS PROJECT WAS DESIGNED TO DETERMINE THE EFFECTIVENESS
AND FEASIBILITY OF USING PROGRAMED INSTRUCTION TO CORRECT
GRAMMATICAL AND MECHANICAL WRITING ERRORS OF STUDENTS
ENROLLED IN A FRESHMAN COMPOSITION COURSE. THE TEST GROUP
INCLUDED STUDENTS WHO HAD SCORED LESS THAN 64 IN THE
COOPERATIVE ENGLISH TEST. EIGHTEEN PROGRAMS WERE EVALUATED BY
THE FACULTY AND FIVE WERE SELECTED FOR USE IN THE PILOT
PROGRAM--"ENGLISH 3200," "ENGLISH 2600," "PROPER
PUNCTUATION," "EFFECTIVE WRITING," AND THE "ENGLISH REVIEW
MANUAL." AFTER ONE SEMESTER OF UTILIZATION, AND AS A RESULT
OF STUDENT ATTITUDE STUDIES AND FURTHER EVALUATION, "ENGLISH
2600" AND THE "ENGLISH REVIEW MANUAL" WERE EXCLUDED. THE
FOLLOWING CONCLUSIONS WERE REACHED--(1) CERTAIN BASIC
PROBLEMS INVOLVING GRAMMATICAL AND MECHANICAL WRITING ERRORS,
CAN, IF THE STUDENT IS MOTIVATED, BE CORRECTED THROUGH
PROGRAMED SEQUENCES, (2) BY UTILIZING MULTIPLE COPIES OF
EXISTING COMMERCIAL PROGRAMS, IT IS POSSIBLE TO IMPLEMENT
PROGRAMED INSTRUCTION FOR LARGE NUMBERS OF STUDENTS WITH
MINIMUM EXPENDITURES, AND (3) STUDENTS HAVE A POSITIVE
ATTITUDE TOWARD PROGRAMED INSTRUCTION. (RS)

USE OF PROGRAMED INSTRUCTION IN A FRESHMAN
COMPOSITION COURSE - A FEASIBILITY STUDY

Eleanor C. Taylor
Robert M. Diamond

May 1966

Report No. 28

OFFICE FOR THE STUDY OF INSTRUCTION

University College
University of Miami
Coral Gables, Florida

Directors:
Dr. Robert M. Diamond, Instructional
                          Resources
Dr. John Walker Powell, Curriculum Study
Dr. John C. Woodward, Evaluation

Table of Contents

USE OF PROGRAMED INSTRUCTION IN A FRESHMAN COMPOSITION COURSE - A FEASIBILITY STUDY

Eleanor C. Taylor
Robert M. Diamond

Background

One of three courses required of all freshman students at the University of Miami is Humanities 101-102 which consists of a broad survey of Western literature, art, music and philosophy, as well as requirements in composition.

As part of the orientation program the University requires that all entering freshmen take the Cooperative English Test. Students who score 64 and above on the test are assigned to Humanities seminars which include instruction and experience in composition as part of the general curriculum requirements. Those who score below 64 (approximately 75% of the total) must also enroll in the Writing Program which requires additional sessions of concentrated composition instruction and writing experience. This program consists of semi-weekly large group sessions which alternate with medium-group sessions plus individual conferences as required (see Illustration I).

During the 1965 fall semester, approximately 1,350 students scored below the 64 cut-off mark and were enrolled in the Writing Program. It should be noted that this program is rather unique in that it is staffed by a highly specialized faculty who are trained in compostion skills and, for the most part, have no other teaching assignment.

ILLUSTRATION I

INSTRUCTIONAL PATTERN
University of Miami Humanities Writing Program
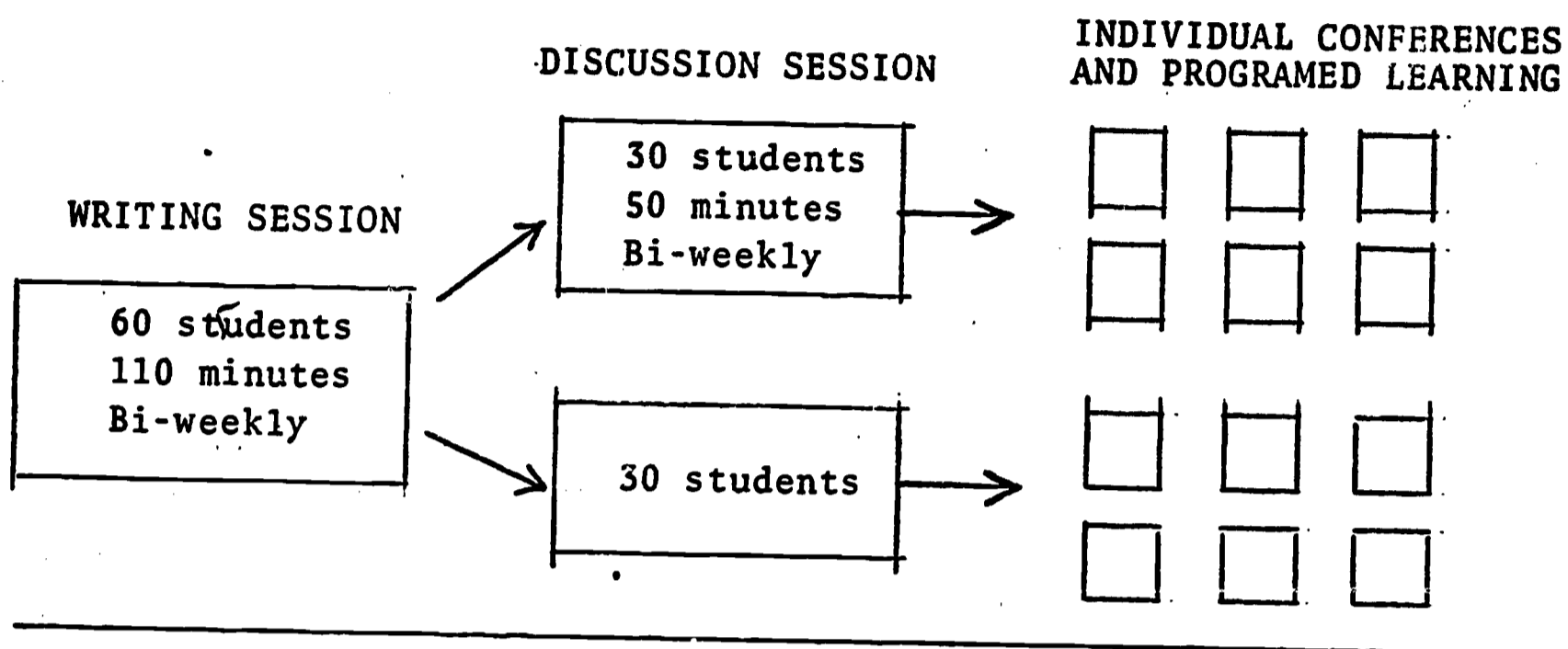
In the program all of the students' writing is done during the large-group session. Their work is entered in a special theme book which is kept by the instructor throughout the entire semester. Medium-group sessions are devoted to instruction in writing skills and utilize a variety of educational media including tape-slide lecture presentations and overhead transparencies.

Prior to this experiment, the small-group sessions and individual conferences between student and teacher were devoted to detailed discussion of specific writing errors. Instructors spent long hours in routine and repetitious drill in an attempt to correct simple grammatical and mechanical errors and were, therefore, deprived of time for advisement in more creative areas of composition skills.

During each semester four major themes are required of Writing Program students. From experience it was found that the major student

writing weaknesses could be classified into several categories: rhetorical, organization, grammatical and mechanical. While rhetorical and organizational problems require individual discussion between teacher and student for clarification, grammatical and mechanical errors appeared to be amenable to the technique of programed instruction. It was therefore decided to explore the feasibility and effectiveness of using short programed sequences to correct these basic writing problems. If this technique could be used successfully, instructors would be free to devote more time to the rhetorical and organizational problems which require their individual attention for correction.

Method of Procedure

Selection of Programs

Before selection of program sequences could begin it was necessary to identify the grammatical and mechanical errors consistently committed by students in their written work. Ten[1] categories were identified by the instructional staff:

1. The Run-on Sentence (comma splice):

   Correcting student failure to supply adequate stop punctuation between independent clauses, especially when they are connected by conjunctive adverbs (e.g. however, moreover).

2. The Sentence Fragment:

   Leading students to recognize independent sentence

---

[1] The number was increased to eighteen during the utilization phase of the study.

structures and discriminate between independent and
dependent clauses and between finite and non-finite
verb forms.

3. Vague (indefinite) Reference of Pronouns:

Correcting student habit of using pronouns (e.g. this,
that, which) the referents of which are either non-
existent or ambiguous.

4. Pronoun Agreement:

Correcting failure of students to make pronouns agree
in person, number or gender with their noun antecedents.

5. Subject-Verb Agreement:

Impressing upon the student the grammatical necessity
of concordance between the subject of the sentence and
its related verb.

6. The Misplaced Modifier:

Focusing student attention on the rules of modification
which demand that modifiers occupy a prescribed position
in the sentence.

7. Parallel Structuring:

Correcting student tendency to shift syntactical commit-
ments, including switches in verb form, point of view
(I to you) and structure of series (nouns to adjectives,
phrases to clauses).

8. Colon, Semicolon, Dash.

9. Comma.

10. Quotation Marks, Italics, Parenthesis.

Rather than develop new programed sequences, a decision was made to utilize, if possible, materials that were already available commercially. Since only segments of the programed texts were to be used, it was necessary to identify the specific frames within a program dealing with a particular problem area. It was anticipated that no more than six or seven sequences would be used within any one program. With the assistance of the Office for the Study of Instruction all available commercial programs that included remedial work in the above areas were secured and reviewed by members of the Writing Program faculty. A total of 18 programs were evaluated and eliminations made on the basis of poor content, incorrect level of ability and lack of an indexing system to help locate instructional frames dealing with specific problem areas.

From the 18, the following five programs--all available in book form[1]--were selected for use in the pilot study:

English 3200 (Joseph C. Blumenthal, Harcourt, Brace & World, Inc.)

English 2600 (Joseph C. Blumenthal, Harcourt, Brace & World, Inc.)

Proper Punctuation (Tutor Text, Kellogg Smith and Leighton G. Steele, Doubleday & Company, Inc.)

Effective Writing (Tutor Text, Kellogg Smith and Jane Stapleford, Doubleday & Company, Inc.)

The English Review Manual (James A. Gowen, McGraw-Hill Book Company, Test Edition)

The particular sequences dealing with each of the specific problem areas were identified within each of the selected programed texts. (See Appendix A for frames or pages used for each subject area.)

---

[1] Proper Punctuation was also available as a program in the Auto-Tutor teaching machine. The use of the machine, though effective and enjoyed by the students, was dropped for administrative reasons.

During the preliminary evaluation in the spring of 1965, a minimum of 20 students were sent through each sequence in each program and an attitude questionnaire administered. These students were selected because of writing deficiencies in the specific area and were assigned to a particular program at random. In addition to the program, students were given a short booklet-- also programed--that described the programing format and listed the assignment. A different booklet was written for each program book used as they differed markedly in basic format.

As a result of student attitude studies and additional faculty evaluation, English 2600 and The English Review Manual were not retained in the program after the first semester. When both branching and linear programs were available in the same area, the branching format received a more favorable reaction by the students.

At the conclusion of the first semester of field testing, members of the writing faculty requested that additional areas of programed instruction be made available for remedial work. Eight more categories were added: Verbs, Capitals, Apostrophes, Shifts, Repetition and Redundancy, and three areas of Spelling. For the spelling assignments an additional program text was required and Spelling Improvement (Patricia M. Fergus, McGraw-Hill Book Company) was selected by the faculty evaluators.

As use of the materials increased, the programed texts were transferred to the reference shelves of the main University library and a standardized assignment procedure was instituted. Upon completion of a theme, the students' work was graded by the instructor who noted errors made in the various categories. When the

same grammatical or mechanical writing error occured three times or more in a single theme, a student was given a referral card (see Illustration II) noting the area that needed remedial work.

Illustration II

Assignment Card

```
+------------------------------------------------------------------+
|  Student's Name _____                                     |
|                                      Instructor _____   |
|                                                                  |
|  ___1.  Run-on Sentence      ___9.  Subj.-Verb Agree.            |
|  ___2.  Sentence Fragment    ___10. Parallel Structure   ___15. Colon, Semi- |
|  ___3.  Pronoun Agreement    ___11. Shift                       colon, Dash |
|  ___4.  Misplaced Modifier   ___12. Repetition &         ___16. Spelling I |
|  ___5.  Verbs                       Redundancy           (Homonyms & Con- |
|  ___6.  Capitals             ___13. Comma                        fused Words) |
|  ___7.  Apostrophe           ___14. Quotation marks,     ___17. Spelling II |
|  ___8.  Pronoun Reference           Italics, etc.                (Demons) |
|                                                          ___18. Spelling III |
|                                                                  (Suffix) |
|  TAKE THIS CARD TO RESERVE READING DESK, RICHTER LIBRARY.        |
+------------------------------------------------------------------+
```

For accurate clerical tabulation a student that was assigned to more than one area was given a separate referral card for each area. Students were required to present the card to the librarian at the reserve desk in the library and secure the appropriate instruction booklet and programed text. Referral cards of students were returned to their instructor by the librarian at the end of each week. During the fall semester of 1965 utilization figures were recorded and a student attitude questionnaire again administered.

Utilization

With 1,352 students enrolled in the Writing Program during the fall semester there were 691 assignments to the programed sequences. Approximately 10% of all students were given assignments at least

once during the semester with 45% of these being given more than one assignment. A list of assignments by area is found in Table I.

TABLE I

Assignment by Problem Area

89 Run-on Sentence	19 Parallel Structure
64 Sentence Fragment	19 Shift
7 Pronoun Agreement	39 Repetition and Redundancy
34 Misplaced Modifier	108 Comma
32 Verbs	2 Quotation marks, Italics, etc.
13 Capitals	15 Colon, Semi-colon, Dash
43 Apostrophe	53 Spelling I (homonyms & confused words)
68 Pronoun Reference	31 Spelling II (demons)
33 Subj.-Verb Agreement	22 Spelling III (suffix)

As would be anticipated, maximum utilization occured during the weeks following the grading of the two major themes--the fifth and twelfth weeks (see Table II).

Table II

Use by Week - First Semester
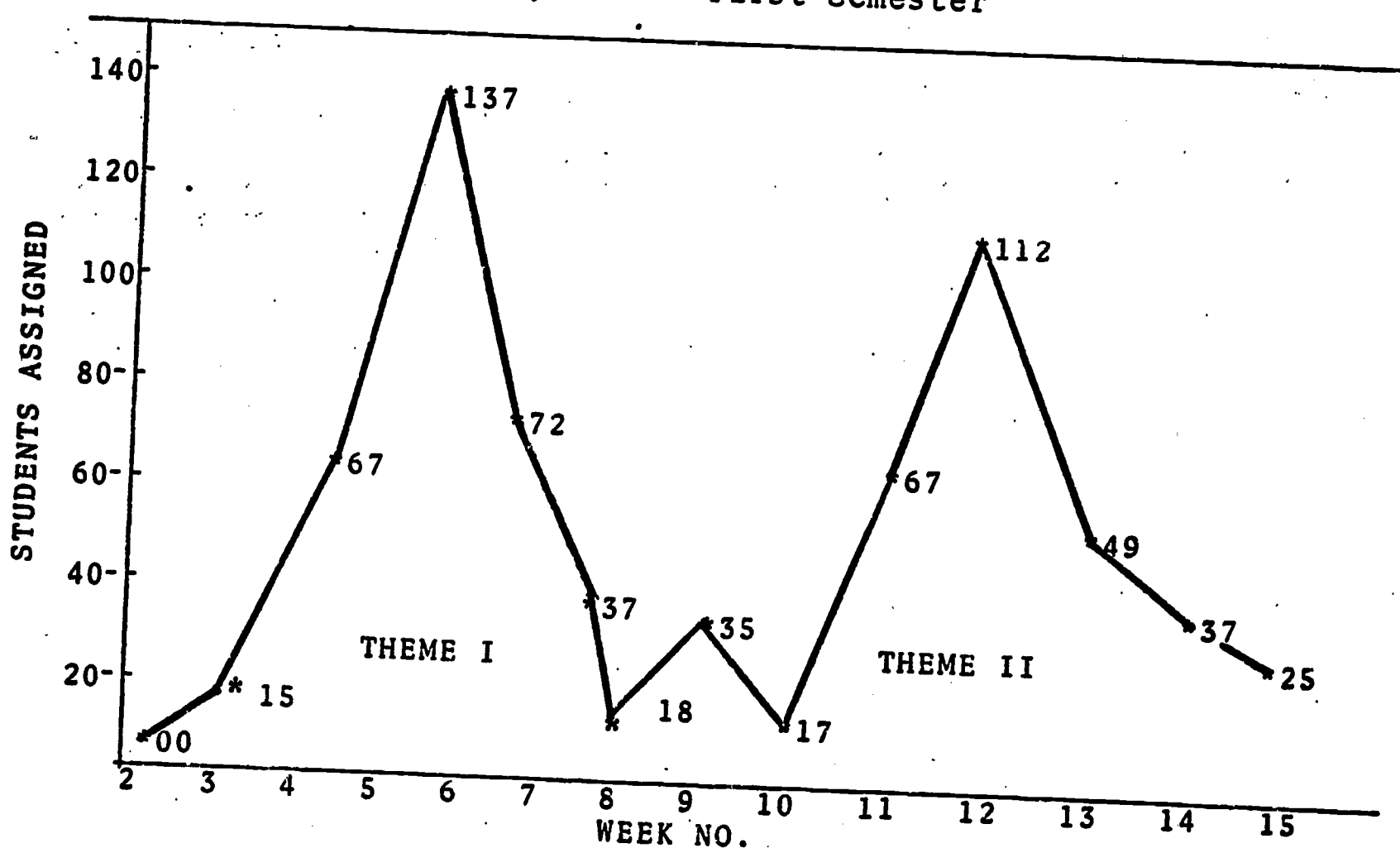
An attitude questionnaire was administered to a random sample of 275 students (see Table III).

Student reactions to the approach were positive: 76% said that they went carefully through the programed lessons, 95% found the programs clear and 77% found the sequences helpful. The average time spent on a sequence was about 20 minutes. It should be noted that there were no differences in attitudes between students who received only one assignment and those who were sent several times.

When assignments by individual faculty members were tabulated, a great variance in use was found between instructors. One instructor averaged over two assignments per student while two members of the faculty averaged less than one assignment per ten students (see Table IV).

Table III - Student Questionnaire

No. of sequences assigned:	1		2		3		4 or more		Total	
	n	%	n	%	n	%	n	%	n	%
I FOUND THIS EXPERIENCE:										
extremely helpful	27	18	9	15	6	15	3	14	45	16
some help	87	58	41	67	28	68	11	50	167	61
little help	23	15	4	7	5	12	2	9	34	12
a waste of time	14	9	7	11	2	5	6	27	29	10
no answer	0	-	0	-	0	-	0	-	0	-
I FOUND THIS EXPERIENCE:										
interesting	52	34	15	24	10	24	6	27	83	30
of some interest	65	43	26	43	19	46	8	36	118	43
of little interest	16	11	13	21	8	20	2	9	39	14
extremely boring	18	12	6	10	4	10	6	27	34	12
no answer	0	-	1	2	0	-	0	-	1	1
The sequence(s) required:										
5-10 minutes	15	10	3	5	2	5	2	9	22	8
10-20 minutes	61	40	31	51	25	61	9	41	126	46
over 20 minutes	73	49	26	43	14	34	10	45	123	45
no answer	2	1	1	2	0	-	1	5	4	1
I WENT CAREFULLY	120	79	42	68	29	70	18	82	209	76
I DID NOT GO CAREFULLY:	27	18	17	28	12	29	3	14	59	21
no answer	4	2	2	3	0	-	1	5	7	2
I FOUND THE INSTRUCTIONAL BOOKLET:										
extremely clear	87	58	33	54	23	56	12	55	155	56
fairly clear	54	36	25	42	17	41	10	45	106	39
confusing	10	07	3	5	1	2	0	-	14	5
no answer	0	-	0	-	0	-	0	-	0	-
Total n	151		61		41		22		275	
Total %	55		22		15		8		100	

Table IV

Faculty Use Ratio

( ) number of students
    in classes

A (56)_____.357

B (57)_____.526

C (57)_____.105

D (84)_____.178

E (106)_____.254

F (108)_____2.222

G (112)_____.098

H (118)_____.220

I (196)_____.485

J (226)_____.685

K (232)____.091

    .1 .2 .3 .4 .5 .6 .7 .8 .9 1.0 1.1 1.2 1.3

$$\text{RATIO} = \frac{\text{students sent}}{\text{students in classes}}$$

Conclusions

1. Certain basic writing problems involving grammatical and mechanical errors generally can be corrected by programed instruction.

2. Students have a positive attitude toward short remedial programed sequences when they are assigned to correct specific and identified errors.

3. When short remedial program sequences are made easily available to composition teachers, they will direct their students to use them.

4. By utilizing multiple copies of existing commercial pro-
grams, it is possible to implement this instructional technique
for large numbers of students with minimum expense. (A maximum
of ten copies of each of four programs was required for 1,350
students.)

5. There is presently no single programed text that meets
all of the remedial requirements of a writing course of this
type.

6. The major grammatical and mechanical writing problems of
college freshmen at the University of Miami occur in the use of
the comma, pronoun reference and sentence fragments.

7. At the university level students prefer programs written
in branching rather than linear format.

This approach has proved to be easy to implement and simple
to use and it has resulted in a more efficient and effective use
of faculty time within the Writing Program.

APPENDIX A

Program Sequences by Subject Area

	Subject Area	Programed Text	Assignment
1.	Run-on Sentence	English 3200	Frame 1384 to 1459
2.	Sentence Fragment	English 3200	Frame 1275 to 1382
3.	Pronoun Agreement	English 3200	Frame 2620 to 2645
4.	Misplaced Modifier	English 3200	Frame 1482 to 1520
5.	Verbs	English 3200	Frame 2177 to 2318
6.	Capitals	English 3200	Frame 3108 to 3178
7.	Apostrophe	English 3200	Frame 3030 to 3106
8.	Pronoun Reference	Effective Writing	Pages 70 to 134
9.	Subj.-Verb Agreement	Effective Writing	Pages 1 to 69
10.	Parallel Structure	Effective Writing	Pages 187 to 236
11.	Shift	Effective Writing	Pages 237 to 306
12.	Repetition & Redundancy	Effective Writing	Pages 428 to 467
13.	Comma	Proper Punctuation	Pages 118 to 165
14.	Quotation marks, Italics, etc.	Proper Punctuation	Pages 167 to 195
15.	Colon, Semicolon, Dash	Proper Punctuation	Pages 67 to 103
16.	Spelling I (Homonyms & Confused Words)	Spelling Improvement	Pages 135 to 167
17.	Spelling II (Demons)	Spelling Improvement	Pages 171 to 237
18.	Spelling III (Suffix)	Spelling Improvement	Pages 241 to 318