THE EFFECT OF STUDENT GROUP EDITING OF THEMES ON THE IMPROVEMENT OF WRITING IN FRESHMAN

ENGLISH COMPOSITION
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Thesis Approved:


Much research has been done durire the past fifty years to find ways of improving the teaching of Tinglish, particularly in the field of written composition. Among other thinés, this reseerch has been concerned with the involvement of studente in evaluative procedure of written composition and with the stimulation of students to develop effective skills of writing and thin:ing. One of the methods often proposed for accomplishing these two ends is the editing of themes by the students.

This study was an effort to compare student editing of themes with the traditional teacher editing to see whether or not the former method brought about more improvement in writing.

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## CHAPTER ONE

## INTRODUOTION: THE PROBLFM AND ITS IMPORTANCE

This study was made to find whether or not the difference between the improvement in written composition made by students of freshman English who edit each other's themes cooperatively and the improvement made by students all of whose themes are edited by the teacher tends to favor the student editing.

Need for the Study

The need for such a study is two-fold. First, the results of teaching composition are not deemed adequate by representatives of business and industry or by teachers in secondary schools and colleges; second, there is a need to find ways of motiveting students to develop skills of writing.

The two groups who challenge the adequacy of present teaching methods have defined certain knowledges, skills, attitudes, and understandings of the language arts as vital to the future of democracy.

The goals of teaching the language arts are as old as the ideals of Western Civilization. Iet each generation faces the task of interpreting these goals anew in the light of the conditions of its own age. To think clearly and honestly, to read thoughtfully, to communicate effectively, and to liaten intelligently have always been basic to the perpetuation of democratic ways of living. Men and women who have gained most from literature through the ages have been those who could see in it the reflection of human experience and could yield to its power to auicken the understanding and to sensitize the

 thear value deponis of pecaiding ital to the quane of democrecy. ${ }^{1}$

Teachers find many problems involved in the task of teaching children, youth, and adults to think more clearly ard honestly, to read more thoufhtfully, to communicate more effectively, and to listen more intelligently. The problem that is pertinent to this study is that of teaching students to write their thoughts clearly and correctly. Because writing is the record of individual. thourhty there can be, perhaps, no single formula that will insure effective writing for all individuals. As thought varies, so must the form of written and oral composition vary. Yat there are certain fundamentals that contribute to the clarity and to the completeness of the recording of thoughts. Some of these fundamentals lend themselvos to ohjective treatment; for example, use of detail to support an 1 dea, correct use of words, and punctuation. Others, such as style and effectness are subjective in their nature.

Une subjective element is the definition of effective writing. Barris Mills, of Purdue University, denned writing as a process with purpose at its center ... "the purprese of the writer and the purpose of the reader. ${ }^{2}$ This duel purpose is said to govern the selection and the rejection of material, the arrangement of the material, and the style of writing. Accompanying these necessities for clear and correct writing are the more nearly ohjective mechanics of correct usage
$I_{\text {National Council of Teachors of Enflish, The English Langugge irts }}$ (New York, 1950), p.3.
${ }^{2}$ Barriss Mills, "ritine as a Froc se," College English, XV(October, 1953), 20.
in such things as grammar, spelline, and punctuation. To Mills' definition, the members of the Commission of the English Curriculum have added that "the emphasis should be on lanruage as an important factor in the larger concerns of social living, with its attendant problems of human relations."1

Language, in the broadest sense, is widely recognized as a vital link between the individual and the world in which he lives. Through language the individual both shapes his environment and is shaped by it ... To discover order in life and to distinguish meaningful patterns in this mass of symbols, the citizen of the future must have conscicus training, not only in reading, writing, and speaking, but also in listening, observation, and demonstration. And he must have an understanding of the function of communication in the culture of which he is a part. ${ }^{2}$

This process with a dual purpose of communication and with its roles of shaping the individual and his environment and of solving the problems of human relations has been the subject of much research since the beginning of the twentieth century. The research began with the colleges. College entrance requirements between 1870 and 1900 had caused English to be included in the high school curriculum. Literature and textbook rhetoric, however, were stressed and pieces of English literature "were dissected after the fashion of the Latin and Greek classics."3 Such a method, although it was the best known at the time for preparing students for college, did not meet the individuel needs of students in the high schools. Therefore the methods of developing

[^0]language as a link between the student and his world came under reproach at both the secondary and the college level. Because of this reproach, research began to be done by both college and secondary personnel.

Since 1900, many agencies have attempted to improve the teaching of English. In 1910, at the Boston meating of the National Education Association, a committee was appointed to study the problem of college entrance requirements in English and the problems of high school needs in English. The committee found a need for a national society of teachers of English, representative and permanent in character, which would have as its object increasing the effectiveness of school and college work in English. The society was formed, ${ }^{1}$ and a committee from it was added to a committee from the National Education Association to form the National Joint Committee of Thirty with James F. Hosic as chairman. By 1920, the Hosic committee had stated concisely the aims of the English courses: namely, (1) to give the pupils comnand of the art of communication in speech and in writing; and (2) to teach them to read thourhtfully and with appreciation, to form in them a taste for good reading, and to teach them how to find books that are worthwhile. ${ }^{2}$ The committee had also stated as the purpose of
...every English teacher, first, to quicken the spirit and kindle the imarination of his pupils, open up to them the potential significance and beauty of life, and develop habits of weighing and judging human conduct and of turning to books for entertainment, instruction, and inspiration as the hours of leisure will permit; second, to supply the pupils with an effective tool of thought and expression for use in their
$l_{\text {The society was the Naticnal Council of Teachers of English. It }}$ was to accomplish its purpose through the pages of the English Journal.

2J. F. Hosic, Reorganization of English in Secondary Schools, U. S. Bureau of Education, Bulletin No. 2, 1916, p. 30.
public and private life, i.e., the best cormand of language which, under the circumstances, can be given them. ${ }^{1}$

These early efforts were primarily concerned with the making of the high school into a finishing school rather than a fitting school; with providing subject matter for English activitios that would develop ideals, attitudes, skills, and habits; and with regarding English as an art to be learned by practice rather than a science to be learned by generalization. By 1955, the National Council of Teachers of English had expanded its purpose. The new purpese was "to improve the quality of instruction in English at all educational levels; to encourage research, experimentation, and investigation in the teaching of English; to facilitate professional cooperation of the members; to hold public discussions and programs; and to integrate the efforts of all who are concerned with the improvement of instruction in English."2 There was still lack of satisfaction with the outcomes of English teachirg, but an effort was being made to do sonething about the matter.

Not all of the research was done by the above named organizations. Schools and colleges conducted independent studies to see': proper methods of teaching English. Some of those pertinent to written English are given below.

Three of the studies published at Harvard !Jniversity concerned individual instruction in English composition, ${ }^{3}$ an approach to composition

[^1]through psychology, ${ }^{\perp}$ and the Erglish examination. ${ }^{\circ}$ The first study was a recommendation of individual instruction with a task, a plan, and freedom to make the learning situation more like the situations of life outside the classroom. The second study was an analysis of works and criticisms of literature and of pictures to show how the human mind works to express 1deas, feelings, and opinions thrcugh facial expression, actions, and words. The third study was a history of the college entrance examinations from 1901 until 1934. It was concluded by the statement that "The College Entrance Examination Board is interested only in testing the candidate's powers - power to think through and to organize the materia contained in the books the student has read, power to read intelligently poetry and prose that he has not seen, power to think independently and to express his own thought in an effective way." 3

Eason's study of technical incorrectness in the writing done by graduates of Tennessee county high schools was published at Peabody in 1929. The data indicated "little relationship between the number of years spent in professional training, the degree held, the length of service, tenure in the present position, and even majoring in the subject taught, and the achievement records of the students taught." 4 At about the same time, Lowrey was comparing the sentences written in freshman themes with those found in literature. He found that the freshman
$1_{\text {Phyllis Robbins, An Approach to Composition through Psychology }}$ (Cambridge, 1929).

2 The Commission on English, Examining the Examination in English (Cambridge, 1931).
${ }^{3}$ Ibid., p. 222.
4 J oshua Lawrence Eason, $A$ Dia nostic Study of Technical Incorrectness in the Writing of Graduates of Tennessee County High Schools Nashville, 1929), p. 80.
college student may reach or approximate contemporary literary prose usage in sentence length, percentage of simple and compound sentences, and frequency of inversions; but in the use of prepositional phrases, verbals, appositives, and absolute constructions he is likely to be deficient."l Beck was studying the conference method of teaching freshman composition. He interpreted the results as showing that "the conference method of teaching written composition to college freshmen is 'truly better' than the nonconference method. "2

At Teachers College, Columbla University, the following four studies were made showing a continued search for ways to improve the teaching of written composition. Vaughan found slight articulation between the high school and the college, but much overlapping of textbook material. He found the themes to be longer and more frequent in college, and more attention to be given to fundamentals. He found that more atudents failed in college, that high school teachers had had more training for the subject they were teaching, and that little practice and training in the use of library facilities was given in either place. ${ }^{3}$ Hwang made a study of the errors involved in rating themes by means of
$I_{\text {Rosewell }}$ Graves Lowrey, "The English Sentence in Literature and in College Freshman Composition," George Peabody College for Teachers Contributions to Education, No. 50 (Nashville, 1928), p. 25.
$2_{\text {E. C. Beck, "A Study of the Conference and Nonconference Methods }}$ of Teaching Freshman Written Composition in a State Teachers College," George Peabody College for Teachers Contributions to Education, No. 49 (Nashville, 1928), p. 42 。

3
W1lliam Eugene Vaughan, Articulation in English between the High School and College (New York, 1929).
composition scales, lencle studied the precis as a technique for teaching composition to freshman, 2 and Hinton examined in detail the non-mechanical aspects of English composition to which out-standing teachers of English give attention in their criticism and grading, 3 such as elegance, force, coherence, emphasis, choice of words, and paragraphing.

Perrin said that
The most conspicuous progress just now is being shown in the renewed activity in composition, both elementary and advanced. Although most freshman courses are still pitched too low, they are moving rapidly from a passive to an active rhetoric, so that the once usual course that opened with a "review of gramar" is beginning to look rather quaint. The change is partly due to the pressure of general education and other curriculum reorganizations that have brought the course out of its departmental hiding place; partly to the rediscovery of communication as an aim whether or not in courses labeled with that magical word; and partly from the plain good sense of people trying to plan an effective course. Teachers of composition are now being promoted on nearly an equal footing with teachers of literature, and there are more positions for composition specialists than there are people to fill them. A parallel development is going on in advanced composition. 4

In spite of the changes brought about by these efforts between 1900 and 1955, results were not yet satisfactory to school people or to the business and professional world at the middle of the century. There were still varying guesses as to what was wrong and as to what should be done. Leverett examined much literature and interpreted the evidence found
$I_{\text {Pu Hwang, Errors and Improvement in Rating English Compositions }}$ by Means of a Composition Scale (New York, 1930).
${ }^{2}$ Grace Elizabeth Jencke, A Study of Prbcis Vriting as a Composition Technique (New York, 1935).
${ }^{3}$ Eugene Mark Hinton, An Analytical Study of the 2ualities of Style and Rhetoric Found in English Compositions (New York, 1940).

4porter G. Perrin, "Sample Trends in the College Teaching of English," College English, X (February, 1949), 253.
therein to indicate that the tracitionel prograns in language arts "have not been successful because they have not achievod their objectives; many programs do little or nothing to remove deficiencies or develop and strengthen skills; they show little regard for individual differerces; and learnings consist largely of isolated rules, with no practical application made of them in relation to the needs of the students."1 Whether or not this interpretation of data gives the whole picture, it is true for many instances and therefore advertises a problen needing solution.

After Leverett made her study, Sterling warned that to expose students to experience is not enough, but that what the students do with what they have received is the real measure of the experience and of their growth. Sterling stated that after the stiudent has first acquired, recognized, and realized sirnificant experience and hes something to communicate, then he must know what, when, where, and how to do with the experience and thought to be communicated. "He must learn to use what he has learned. He must learn how to think. He must learn how to sort, classify, rearrance, and evaluate. He must acquire ability to interpret and use what he has learned, if he is to be effective in the use of the expressive phases of speaking and writing."2

Luella Cole pointed out the following wea'ress of the program in written composition as it appears in the writine: of freshran students in college:
$\qquad$
$1_{\text {Ernestine Leverett, A Program in Languace Lrts for Teaching Those }}$ Students Who Make Low Grades on College Enclish Entrance Tests, (Unpublished dissertation at Cllanoma hericultural and Mechanical College, 1952), p. 98.
${ }^{2}$ Edna L. Sterline, "The What, Yhen, Yhere, low of the Communication Arts," Education, LXYXII (!arch, 1952), 459.

Clearly many freshmar have not learned the elements of grammar. In recent years the trend of teaching written English in elementary and hich school has been away from such formal items. The public schools have perhaps swung too far in the direction of complete informality, with the result that students do not now how a sentence is constructed and therefore have understandable difficulties in either writing or revising sentences of their own. While one cannot recommend a return to formal discipline, it does seem absurd that children should practice writing from the fourth through the twelfth grades without finding out for instance that verbs have subjects and objects. 1

Lawson, of Coalgate University, suggested two other causes for the poor writing done by college students:

1. Writing is like any other skill: the way to learn to do it better is by doing it, subject to the judgment of cur peers and superiors. Do we give students enough such practice even in English ccurses? Direct instruction about the English language is no substitute for using it. Beyond a certain point, indeed, isolated instruction in forms, conventions, and grammar of English merely bores, is resented, and paralyzes the will to write.
2. Besides being a skill, writing is also a form of behavior. In behavior we normally respond to the requirements of a community whose opinion we respect, cherish, or fear.... Specifically, if we want acceptable writing to become habitual behavior, teachers who are not English teachers must care about it. ${ }^{2}$

At the spring meeting of the Conference on College Composition and Commication at Cleveland, Ohio, March 28, 1952, representatives from business and industry were invited to talk on "What Do Employers Expect of Freshman Courses in Composition and Communication?" T. I. Shellenberg said at this meeting:
${ }^{l_{\text {Luella }} \text { Cole, The Background of College Teaching (New York, 19/40), }}$ p. 245.
${ }^{2}$ Strang Lawson, "The Coalgate Plan for Improving Student Writing," Association of American Colleges Bulletir, XXXIX (May, 1953), p. 288.

What wo should like if it were possible would be to have employees come to us with an at,titude that facilitatos continued improvement in writing - an attitude that recognizes that no writer ever writes perfectly, that the best writers urite badly when they don't take pains, that every writer can improve his skill until his mind begins to fail, that the product of our first frenzy seldom has anything to cormend it except its frenzy. We should like them to ragard the job of writing as one of the major parts of every assignment they undertake. In estimating time for the completion of a job, they should combat the tendency to suppose that when the material has been studied and notes taleen, the job is virtually done and that all that remains is to "throw their notes together" and "write them up." One of our commonest failings is to allow no time for sturiying the problem of how best to present our conclusions or for the tedious process of reorcanizing, rephrasing, and redrafting.

I should like to see ready developed in all our new employees the habit of self-criticism with respect to writing and a readiness to accept in cood spirit any criticism of their writing offered by others....

Finally, I should like to see them reconciled to the inescapable conditions that are attached to Government service, which I have reviewed for you. These are that the writing of an individual is submerged in that of his office, that it is reviewed for content as well as for grammar, and that it will appear anonymously. ${ }^{1}$

At the same meeting, T. K. Bailey, vice-president of the Warner and
Swassey Manufacturing Company of Cleveland added that
Te want and need people who can think - who have had some training in thinling - who can distinguish between cause and effect both in the concrete and in the abstract, and who can so express their conclusions that they are accepted by others, and so that others will follow their leadership....

It is my observation that, in business, the oral presentations are much better than the usual written presentations. ... However, the usual procedure in written presentations is to present all of the data and then to bury the conclusions at some point near the end of the written cormunication.... Before writing the report, why shouldn't the individual definitely decide the question to be answered, and answer it, and then give the supporting data?
$I_{T}$ R. Schellenberg, "What Employers Expect from Collere Ccurses in Composition and Comrunication, " Collere Composition and Communication (Bulletin of CCCC), IV (No. 1, Pebruary, 1953), pp. 10-11.

In addition to the difficulty in developing the ability to express complex situations in simple terms, there is also the difficulty of developing an art in the use of words. And I know that you, of the teaching professicn, can help students in this art. Most communications are written with the idea of getting somebody to do something, and while the use of individual words is important, there is a principle of presentation that is even more important.

The man who can influence people will succeed in any organization. What he says and how he says it is all important. 1

The two talks cited above remind the reader that not only do representatives of business and industry agree with school personnel concerning the inadequacy of present outcomes of the teaching of English, but also that they have specific ideas as to what is wrong. If, as the preceding reports indicate, there is agreement between school and society concerning the unsatisfactoriness of present methods of teaching English, then there is a need for continued search for better methods.

The growing concern about the outcomes of the teaching of composition is accompanied by a second concern; namely, that more effective ways and means are needed for motivating students to develop writing skills. This need for motivation was implied by the National Joint Committee of Thirty. ${ }^{2}$ Hosic defined the motivation thus: "The first step toward efficiency in the use of language is the cultivation of earnestness and sincerity; the second is the development of accuracy and correctness; the third is the arousing of individuality and artistic consciousness."3 Many efforts have been made to arouse individual
$1_{\text {W. K. Bailey, "The Importance of Com }}$ Conication for Advancement in Industry," Ibid., p. 11-13.
${ }^{2}$ See p. 4.
${ }^{3} \mathrm{~J} . \mathrm{F}, \mathrm{Hosic}$, op. cit., p. 54 .
consciousness. Recent ones heve included orill based upor the irdividual's own usafe and mechanical errors, l writing clinics ard writing Iaboratories, ${ }^{2}$ organized writing experiences in non-English classes, ${ }^{3}$ student publications, and varicus types of group projects. A report from the University of Southern California claimed freat success for group dynamics. As a result of the groun method usec, "lagging pupils improved by writing 'A' themes."4 The class was organized with five chairmen and an observer. At the end of each class period, the observer made suggestions for doing better work next time. Speech and writing were studied together. The main functions of the groups were to carry on panel discussions and to act as theme reading and tutorial groups for their members. Themes were handed in on tonday and were taken by other students for criticism. On Friday, they were returned to owners who might rewrite them. Then the teacher graded and returned the themes. "Buzz" groups met to discuss better writing, and pupjis met the teacher often for conferences. Once during the semester, all classes and teachel met together. At City College of New York 5 and at Milwaukee State

[^2]Teachers College, l the investigative paper was ade into a group enterprise. Natson's study of small group work in large classes showed that

Students who will enjoy and profit from small group participation could not be identified on the basis of : their own expressed preference; their level of mastery of the course material; their general level of enthusiasm for course topics; or their response to clusters of questions apparently indicating sympathy, hostility, self-reliance, or intellectualism. No advantage was demonstrated for groups which worked cumulatively on a single topic all semester over groups which discussed different issues each week. ${ }^{2}$

Students who rated the group work low rejected all questionnaire items indicative of authoritarianism. They were also disappointed in the lack of intellectual stimulation from their fellow-members.

Whether group or individual methods*are employed, there seems to be some agreement that proper motivation of writing involves the actual process of writing. Mills summarized the implications of this agreement thus:

1. We cannot teach purposeful writing without givirg students plenty of practice in purposeful writing.
2. The writing should have some realistic purpose for both the student and the reader.
3. If related to the concept of purpose, the selection and organization of material can be made much more meaninfful as part of the process of communication rather than as means in themselves.
4. Much of the inarticulateness of students comes from their having no realistic purpose for communcating in writing, no real notion of what they can or will say about the subject, and no working outline of the material to be dealt with.
5. To teach grammar and punctuation usages for their own sakes, independent of the writing process as a whole, is useless and insufferably dull for most of our students.
$l_{\text {Elizabeth Kerr, }}$ "The Research Paper as a Class Enterprise," College English, XIII (January, 1952), 204-215.
${ }^{2}$ Robert H. Moore, ON. cit.
6. Learaing to commanicate effectively is very much an individual affair; mass methods simply will not work. 1

His summary strikes a note of warning for the use of group methods, although he recommends highly the laboratory method of teaching compo sition. Mason's summary includes other motivational techniques: namely, using good salesmanship, using proper materials, stressing thought before writing, and marking themes helpfully. ${ }^{2}$ This last technique marks a point of great difficulty in the crowded schools and colleges of the nineteen fifties. From ten minutes ${ }^{3}$ to fifteen minutes 4 is considered the average amount of time required to read a short theme; a fifteen minute conference every other week is minimum; "the weekly theme should be read with all possible care"; 5 composition teachers should write; 6 "the student must be given problems in writing which force him to bring into focus the most difficult material available to him"; 7 and the student must be motivated. These are only a few of the adrocated minimum essentials.
$\mathrm{I}_{\text {Barriss Mills, }}$ "Writing as a Process," op. cit., 23-25.
2 James Hocker Mason, "Motivation in Liberal Arts and/or Commanication Courses," College Composition and Comunication, III (February, 1952), 7-10.
${ }^{3}$ George S. Wycoff, "Suggestions for the Reading of Themes," College English, XI (January, 1950), 210-214.

4A. F. Coward, "Comparison of Two Methods of Grading English Composition, " Journal of Educational Research, XLVI (October, 1952), E1-93.

5George S. Wycoff, "Toward Achieving the Objectives of Freshman Composition," College English, X (March, 1949), 319-323.
$6_{\text {treading and Grading Themes," College Composition and Communi- }}$ cation , V(October, 1954), 108-109.
$7_{\text {Barris Mills, op }}$ cit., p. 25 .

Although each essential seems small, the total time required to attain the aggregate is increased as the number of pupils per teacher is increased. Table I was compiled by the investigator to show the minimum hours of duty per week for teachers of sixty, of one hundred, and of one hundred twenty students if no theme requires more than the minimam ten minutes for reading, ranking, and grading; if no student gets more than the minimum fifteen minute conference; if each section meets three times weekly; if the teacher can prepare for an hour of class time in an hour of study time; and if the teacher spends only two hours per week in personal writing.

## TABLE I

COMPAPISON OF HOUPS PER WEEK REOUIRED BY FOUR TPACHER LOADS FOR TEACHING COMPOSITIT : UTH CERTAIN RECORENDED MINIMUS

|  | 60 students <br> $(2$ sections $)$ | 100 students <br> $(4$ sections $)$ | 120 students <br> $(5$ sections $)$ | 120 students <br> $(4$ <br> sections $)$ |
| :--- | :--- | :--- | :--- | :---: |
| Reading Themes | 10 hours | 17 hours | 20 hours | 20 hours |
| Conference | 8 hours | 13 hours | 15 hours | 15 hours |
| Class Time | 6 hours | 12 hours | 15 hours | 12 hours |
| Preparation | 6 hours | 12 hours | 15 hours | 12 hours |
| Personal Writing | 2 hours | 2 hours | 2 hours | 2 hours |
| Total Hours <br> Per Week | 32 hours | 56 hours | 67 hours | 61 hours |

To these loads varying amounts of time for faculty meetings, special committees, and extra conferences with students who have special problems should be added. Also to be added is the time for reading longer themes in the advanced classes.

To read any more themes than are already required in freshman English would add more clock hours to the present heavy load of the teacher. This would lessen the amount of conference time for the student and the amount of preparation made by the teacher. It would preclude some of the work done with the student on his theme before and after its writing to show him the poor, the good, and the mediocre so that he can see what he has done and what he needs to do. 1 Yet more experience in writing, more attention to the writing after it has been done, and more conferences of teacher and student are said to be necessary. At the same time more students and more classes have been assigned per teacher. The length of a week remains the same. If more themes are to be reed for more students and more conferences are to be held with more students, then a way neads to be sought to get the reading and conferring done in a manner beneficial to the students.

One possibility for resolving the above dilemma was found in the attempts to provide meaningful activities in composition classes. With the growth of interest in group enterprise, clinics, and writing laboratories, there was much encoragoment of the editing of themes by students From the elementary schools of Los Angeles ${ }^{2}$ to Chamblee High School in Georgia ${ }^{3}$ there came reports of student editing. From Michigan, Valcott reported that a plan for teaching students to edit themes of their

[^3]classmates brourht great improvement to the students and grest relief to the teachers. He defined the functioned of proofreading, revising, and checking of sentences for clarity and economy of thourht as one "that belongs to the writer; one improves by doing it oneself, not by having it done by a convenient expert who, presumably, doesn't need the discipline as much. ${ }^{1}$ He also expressed his conviction of a great need for further experiment with the technique, especially by groups of teachers and over periods of years. At the college level, the group enterprises already mentioned ${ }^{2}$ involved student eiting of themes individually and by groups.

The review of the literature up to this point has shown (1) that writing is a process vital to demccracy both as a tool of communcation and as a mans of linking the individual to his world by helping him to solve problems of human relatiors; (2) that the many efforts made during the past half century to improve the teaching of English are still inadequate; and (3) that students must be motivated to develop better writing skills. Examples of motivational techniques have been cited. Among them is the practice of having students do much of the editing of themes. This practice is one means of solving two problems at once, namely, of insuring that all themes are read by some else than the writer before succeeding themes are written and of stimulating student interest in the improvement of writing. The practice makes it possible to have more themes written with less danger of having pupils practice their errors.

[^4]If the editing of some of the themes by the stadents helps the young people to learn as well or better how to express their thoughts clearly and correctly than does the traditional method of having all papers marked by the teacher, then the practice can well be used to save the time of the teacher for other recommended purposes. The method does make possible more writing experiences by maling possible the editing of papers as fast as they are written. In this way students avoid practicing the many uncorrected errors which result when students write again before the first themes are corrected. It may be that the student participation in the editing is a motivation to more effective learning. For these reasons, the possibilities of studert editing of themes need further investigation.

This study was made in consideration of the two-fold need delineated above: namely, that the present results of teaching composition are not deemed adequate and that more effective ways and means of motivating students to develop writing skills are needed.

## Hypothesis and Basic Assumptions

To facilitate the comparing of the two methods of editing themes, the following experimental hypothesis was stated. The difference between the improvement in written composition made by students of freshman English who edit each other's themes cooperatively and the improvement made by students all of whose themes are edited by the teacher tends to favor the student editing. Improvement was to be that evidenced by changes in results shown by measuring instruments administered to the two groups of students. The hypothesis was based upon three assumptions.

First, improvemert in writing depends upon learning certain knowledges, skills, attitudes, and understandings of the language arts. Second, improvement in written composition can be seen ard the extent to which it exists can be tested. Third, editing of themes is a contributing factor to improvement in written composition.

## Scope of the Study

The study was limited in students, in facets of written composition to be tested, in kind of writing to be done, and in length of experimental time. Only those students enrolled in the first and second semester courses of freshman composition at Oklahoma Agricultural and Sechanical College were included in the experiment. The writing was expository in nature. It involved, primarily, choosing a main idea about a given subject and then collecting and organizing relevant readings and class discussions. The facets observed and tested were language knowledge, correctness of performance, and organization of content as they relate to improvement in writing. The experiment time was a period of ten weeks during which five teachers conducted a control section and an experimental section each for thirty class meetings. In each section, each student wrote one theme per week until ten themes had been written.

## Definition of Editing

The term editing was broadened for purposes of pupil and teacher procedure in this experiment. Editing did not include the concepts of grading, ranking, and the like. It was interpreted to include the following factors:

1. Fointing out necessary revisions in such mechanics as usage, spelling, punctuation, capitalization, and sentence form.
2. Pointing out such necessary revisions as definition, organization, classification, relevance, logic, choice of language, and illustration, etc.
3. Pointing out incidence of excellence or of improvement in writing.

By student group editing was meant the reading and marking of papers cooperatively by small groups or committees in the class. The teacher was to act in an advisory capacity only. By teacher editing was meant any marking of papers by the teacher alone. Ilot at any time was the student editing or the teacher editing of themes to preclude the resporsibility of a student to revise and correct his paper before subnitting it.

## Purpose and Procedure of the Experiment

The purpose of the experiment was to try to find the difference, if any, between the improvement made in written composition by students who edit their themes cooperatively and the improvement made in written compositions by students whose themes are edited by the teacher. If any difference was found, it was purposed also to try to interpret the said difference.

The design for the experiment included five teachers and ten section of students enrolled in freshman composition. Each section met three times a week. Each teacher was to have one control section and one experimental section. For the first four weeks all activities, materials tests, assignments, and subjects were to be alike for both sections
taught by one teacher. Themes one to four were to be read and marked by the teacher and returned to the writers.

After the fourth theme was written, the procedure in the control sections was to continue as in the first four weeks with all the themes edited by the teachers. In the experimental sections, students were to edit themes five through nine.

A concerted effort was made to keep all procedures alike in all the sections except for the method of editing themes. Themes one, four, and ten were designated as test themes. All classes would write test themes on the same two days; that is, if Monday-Wednesday-Friday classes wrote on Friday, then Tuesday-Thursday-Saturday classes wrote on the following day. Subjects were to be agreed upon by the teachers in advance and preparatory reading was to be done, but students would not be given the theme subjects until they came to class for the writing. All students were to make corrections of their errors when the themes were returned. Rewriting was at the option of the teacher; but if themes were to be rewritten by one section, these of the other section were also to be rewritten. Grades were not to be considered part of the experiment, but if grades were to be placed on a set of themes for one section, they were also to be awarded to the correspondine set in the other section. Themes other than test themes might be written in or out of class, but the rules for any one theme must be the same for both sections. If such aids as the ofaque projector were to be used for one section, they were to be used for the other.

Data to ascertain the amount of improvement in writing were obtained by means of the three test themes and forms $\mathrm{Gm}, \mathrm{Bm}$, and Am of
the Barrett-Ryan-Schrammel English Test. To make scoring of the themes unfform and objective, an editing guide was prepared by the five participating teachers in accordance with the aims of the course in freshman composition being taught. This guide was tested for validity and for reliability.

The teachers met for conference and orientation once to three times weekly until the experiment was well under way and until they felt that they were in common agreement and understanding as to the experimental procedure and as to the use of the editing guide.

After all materials were collected and posted, comparisons were made of individual gains and losses, of central tendencies of the control and experimental groups, and of differences between variances. The analyses of variance were made separately for language knowledge, for correctness of performance, and for organization of content. The subjective evaluations of teachers and students were added to the comparisons and analyses.

The following chapters contain an account of the population and materials of the experiment, the selection and development of criterion measures, the procedure of the experiment, the analysis of the data, and the conclusions and recommendations for further study and experiment.

The staff and students, the course objectives, and the materials involved in this study were those found regularly in classes of freshman English at Oklahoma Agricultural and Mechanical College. An attempt was made to keep all general procedures of the experiment as much like norma: and customary procedures and objectives of the department as possible without violating the necessary terms of the problem itself.

## The Teachers and Classes

Four of the five participating teachers were regular faculty members of the department. The fifth participant was a graduate assistant teaching her second semester of freshman composition, but having the master's degree in English and having taught English in the state high schools for twenty-five years. These five teachers are indicated throughout this and the following chapters as $\mathrm{H}-1, \mathrm{G}-2, \mathrm{D}-3, \mathrm{~A}-4$, and B-7. A sixth member of the department, appointed by the department chairman, acted as counselor to the experimenter and as a supervisory member of the orientation meetings.

In the beginning, the sections were accepted just as they had been assigned to the individual teachers by enrollment at the registrar's offices. No teacher knew what students he would have until the first class meeting. However, in the sections of English ll3, which is the
first semester course, those students having made scores below the twentieth percentile on the language part of the American Council on Education Psychological Examination were sent to remedial sections. Therefore the weakest students were withdrawn from those sections before the experiment was begun. The test is required of all entering students; therefore, all the members of the second semester sections had also taken the test. Some students in all sections had completed the remedial course.

One of the two sections taught by each teacher was dasigrated by the teacher as an experimental section and one as a control section. Thus five control sections comprised the control group and five experimental sections, the experimental group. Students of the experimental sections were to edit five consecutive themes; in the control sections, all themes were to be edited by the teacher.

Just as the assignment of students to secticns and the assignment of teachers to sections were matters settled previous to the experiment by customary administration procedure, so were the times of meeting also arranged. All of the sections in the experiment met in the mornings for fifty minutes periods. The Saturday mornine classes for three control sections may have been adverse in their effects on outcomes because of the disfavor or Saturday classes by the students. Otherwise the time schedules were fairly balanced as may be seen in Table II.

TABLE II

SCHEDULE OF REGULAR MEETINGS OF SECTIONS

| Teacher | Control <br> Section | Experimental <br> Section |
| :--- | :---: | :---: |
| $\mathrm{H}-1$ | MWF -10 | MWF -8 |
| $\mathrm{G}-2$ | $\mathrm{TThS}-8$ | MWF -9 |
| $\mathrm{D}-3$ | $\mathrm{TThS}-11$ | $\mathrm{MWF}-9$ |
| $\mathrm{~A}-4$ | $\mathrm{MWF}-8$ | $\mathrm{MWF}-10$ |
| $\mathrm{~B}-7$ | $\mathrm{TThS}-8$ | $M W F-8$ |

Sizes of the complete sections were decidedly unequal, varying ?rom ${ }^{1}$ nineteen students to thirty as shown in Table III. However, in order to balance the size of sections, the data for only fifteen studénts from each section were used in the study. Two steps were ;aken to choose these students to be used in the experimental study.

TABLE III

SIZE OF MEMBERSHIPS OF SECTIONS IN THE EXPERIMENT

| Methods | Teachers |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Contral | $\mathrm{H}-1$ | $\mathrm{G}-2$ | $\mathrm{D}-3$ | $\mathrm{~A}-4$ | $\mathrm{~B}-7$ | Total |
|  | 21 | 26 | 27 | 29 | 30 | 133 |
|  | 25 | 19 | 20 | 24 | 25 | 113 |
| Total | 46 | 45 | 47 | 53 | 55 | 246 |

First, students whose work was incomplete or who had not taken the various tests at the regularly scheduled times were removed from the study list. Second, from the names of students whose work was complete and done according to schedule, fifteen were drawn from each section by means of a table of random numbers. 1 This drawing at random of fifteen names from each of ten sections made a total of one hundred fifty cases to be considered in the statistical analyses.

Four of the five pairs of sections contained students enrolled in the second semester course, or English 203. These sections and their respective teachers are designated in this study as $H-1, G-2, D-3$, and A-4. A single section will be referred to as control H-l, experimental $\mathrm{H}-1$, and so on. Sections B-7 were composed of students enrolled in the first semester course, or English 113. As was said previously, some of the students in both the first semester course and the second semester course had had a special remedial course at the beginning of their college careers.

The two groups were not equated as to scores made in mental ability tests. Table IV shows that the control group surpassed the experimental group in average mental ability by 5.84 points as measured by the American Council on Education Psychological Examination. These averages were obtained from the scores of the fifteen subjects in each section chosen at random for statistical analyses. The range of scores is 37.67 for the control sections and 32.40 for the experimental sections. The difference of 3.67 between the two ranges is considerably lower than the range of 15.00 between the most unequal pair of sections.
$1_{\text {James E. Wert et al. Statistical Methods in Edncation and }}$ Psychological Research (New York, 1954), p. 416.

AVERAGFS OF RAW SCORES ON
AMERICAN COUNCIL ON EDUCATION PSYCHOLOGICAL EXAMINATION

| Teacher | Control Group | Experimental Group | Difference |
| :--- | :---: | :---: | :---: |
| H-1 | 100.07 | 84.33 | 15.74 |
| G-2 | 104.53 | 105.27 | -.74 |
| D-3 | 113.90 | 106.33 | 7.47 |
| A-4 | 100.73 | 95.80 | 4.93 |
| B-7 | 75.73 | 73.93 | 1.80 |
| Total <br> Groups | 98.97 | 93.13 | 5.84 |

Another factor which may or may not have affected the results of the experiment was the imbalance of interests between the two groups which may be visualized in a study of the schools represented. (See Table $V$, page 29.) The experimental groups had a ratio of thirty-eight students of agriculture to thirteen in the control group, of thirtymone students of arts and science to seventeen in the control group, and of fourteen home economics students to nine in the control group. The commerce and engineering ratios favor the control group but with narrower margins.

The above observations of differences between sizes and meeting times of sections, between individuals in mental ability, in interests, and between distribution of these individuals in the two method groups are factors to be kept in mind when interpreting the statistical treatment of the data.

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DISTRIBUTION OF ORIGIML SECTIOH MRMPERSHIPS ACOORDING TO SCHODLS

| Section | Schools |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { \& } \\ & \vdots \\ & 0 \\ & 0 \\ & \text { E } \\ & 0 \\ & \hline \end{aligned}$ |  |  |  |  |
| $\begin{array}{ll} \text { H-1 } & \text { Exp. } \\ & \text { Con. } \\ & \text { Total } \end{array}$ | $\begin{aligned} & 7 \\ & 1 \\ & 8 \end{aligned}$ | $\begin{array}{r} 6 \\ 4 \\ 10 \end{array}$ | 2 11 13 | 1 3 4 | $\begin{aligned} & 1 \\ & 4 \\ & 5 \end{aligned}$ | $\begin{aligned} & 4 \\ & 2 \\ & 6 \end{aligned}$ | $\begin{aligned} & 21 \\ & 25 \\ & 46 \end{aligned}$ |
| $\begin{array}{ll} \text { G-2 } & \text { Exp. } \\ & \text { Con. } \\ & \text { Total } \end{array}$ | $\begin{array}{r} 7 \\ 3 \\ 10 \end{array}$ | 7 7 8 | 5 12 17 | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ | 5 3 8 | $\begin{aligned} & 2 \\ & 0 \\ & 2 \end{aligned}$ | $\begin{aligned} & 26 \\ & 19 \\ & 45 \end{aligned}$ |
| $\begin{array}{ll} \mathrm{D}-3 & \text { Exp. } \\ & \text { Con. } \\ & \text { Total } \end{array}$ | 8 1 9 | 4 1 5 | $\begin{array}{r} 11 \\ 6 \\ 17 \end{array}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{array}{r} 4 \\ 10 \\ 1 \mu_{4} \end{array}$ | 0 2 2 | $\begin{aligned} & 27 \\ & 20 \\ & 47 \end{aligned}$ |
| A-4 Exp. ron. Total | $\begin{array}{r} 8 \\ 6 \\ 14 \end{array}$ | $\begin{array}{r} 8 \\ 7 \\ 15 \end{array}$ | 8 7 15 | $\begin{aligned} & 1 \\ & 1 \\ & 2 \end{aligned}$ | 2 2 4 | $\begin{aligned} & 2 \\ & 1 \\ & 3 \end{aligned}$ | $\begin{aligned} & 29 \\ & 24 \\ & 53 \end{aligned}$ |
| B-7 Exp. Con. Total | $\begin{array}{r} 8 \\ 2 \\ 10 \end{array}$ | $\begin{array}{r} 6 \\ 4 \\ 10 \end{array}$ | $\begin{array}{r} 6 \\ 4 \\ 10 \end{array}$ | $\begin{aligned} & 2 \\ & 0 \\ & 2 \end{aligned}$ | $\begin{array}{r} 2 \\ 11 \\ 13 \end{array}$ | $\begin{array}{r} 6 \\ 4 \\ 10 \end{array}$ | $\begin{aligned} & 30 \\ & 25 \\ & 55 \end{aligned}$ |
| A11 Exp. Con. Total | $\begin{aligned} & 38 \\ & 13 \\ & 51 \end{aligned}$ | $\begin{aligned} & 31 \\ & 17 \\ & 49 \end{aligned}$ | 32 40 72 | 4 4 4 8 | $\begin{aligned} & 14 \\ & 30 \\ & 44 \end{aligned}$ | $\begin{array}{r} 14 \\ 9 \\ 23 \end{array}$ | $\begin{aligned} & 133 \\ & 113 \\ & 246 \end{aligned}$ |

Course Objectives
Course objectives were somewhat the same for both first and second semester composition except for the point of emphasis. Stating a main idea and developing it; making all matter in the theme relevant, coherent, complete, and properly proportioned; paragraphing effectively; achieving a Pair degree of effectiveness in word and sentence use; and appropriate paragraphing were expected of students in both courses. In the first semester course, such items as spelling, punctuation, sentence structure, usage, and diction were stressed; in the advanced course, these were required, but more emphasis was placed upon orgenization of thought. The course description for English 113, which was the first semester course, prescribed both direct and indirect approaches.

Indirect training in writing is given by means of some instruction in grammatical usage, punctuation, and related mechanical matters. Direct training is given the greater emphasis; it takes the form of a series of compositions written by the student according to general specifications laid down by the teacher. These themes are marked by the teacher and corrected by the student. The compositions are mainly expository and by the end of the semester he is expected to be able to choose a subject intelligently, organize it clearly, and discuss it effectively and in good form. 1

Chapters in the text which were studied early in the course included spacific discussions and illustrations of how to choose a topic; how to narrow the topic to suit the occasion, time, and space of the writing; how to distinguish between fact and judgment; how to state a thesis or nain idea; and how to develop that idea by means of facts, illustrations, letails, and reasoning. In addition to these materials, each student had a copy of a review guide for studying the phases of grammatical

1Committee on Composition, A Proposal for the Teaching of English 113 (Dittoed Report to the English Faculty of Oklahoma Africultural and Mechanical College, 1954), p. 1.
usage, spelliné , and punctuation which most corfuse freshman students at Oklahoma Agricultural and Kechanical College. Special training in the use of the dictionary was also given.

In the statement of reading objectives of the course, the committee on freshman composition at Oklahoma Agricultural and Mechanical College had recommended the relation of the material in the readings to the student's personal experience and the stimulation of the student's interest and thought so that his own compositions mipht be more than mechanical writing chores. For these purposes, most of the writing followed some line of thought relevant to previous reading and to class discussion of the article read.

In English 203, the second semester course, the same objectives were continued. More, however, was expected of the student in the way of style, organization, and critical thinking. Various models of exposition were analyzed to see what kind of thinking had been done in order to carry out a predetermined purpose. In this course, each assignment was given to outlining as well as to the choosing of a pattern appropriate to the "theme idea."

Each student enrolled in English 113 owned as textbooks the following: Modern English Handbook by Gorrell and Laird, A quarto of Modern Literature by Perrin and others, the above mentioned review guide, and a dictionary. In the second course, the Quarto of Modern Literature was replaced by the 罪iter's Reader by Souers and others.

## CHAPTER THREE

SELECTING AND DEVELOPING THE CRITERION MEASURES

The Need for Developing Measuring Instruments The lack of reliable and valid tests that will measure how well a student writes presented the greatest difficulty in this study. To measure the criterion of language knowledge, there are tests that are reputable and that are easily administered. To measure actual writing skill directly and reliably, there are no standard measuring instruments at the college level. Since three criteria had been selected for this study but an instrument of measurement had been found for only one of the three, then it was necessary to make an instrument for measuring the change of performance in mechanics and in organization of content. Before attempting to select a test of language knowledge or to make a test of mechanics and one of organization of content, a study was made of what had been done in the past to ascertain achievement in writing.

The lack of a desirable device for measuring change in writing ability has been a problem of concern and controversy since composition first gained its place in the curriculum. Kany efforts have been made during the past half century to make some kind of standard to measure the quality of written composition, but none have been found to possess a satiafactory degree of reliability and validity. Composition scales, indirect tests on composition, and multiple readers of themes are the most commonly used methods by teachers who have attempted to make such a standard.

## Composition Scales

One of the earliest efforts "to reduce the variablity in scoring the mechanical and structural aspects of composition"l was made by J. W. Rice in 1903. Rice read a story to pupils in varicus schools and had them reproduce the story in writing. The first drafts were arranged in five piles, averages were computed and sample papers were selected to serve as guides to the scoring of other themes. These crude scales were not objective, but they marked a step toward scientific messurement of composition.

The first scientific measuring device for quality of writing was the Hillegas Scale of 1912. Hillegas adopted a zero point and an unit of difference in quality based upon the grading of two hundred experienced judges. The scale consists of ten compositions arranged in ascending order from zero. It is long and complex, and is very difficult to use. ${ }^{2}$

In 1914, F. W. Ballou made the second attempt at scientific measurement of the quality of writing when he devised the HarvardNewton Scales. These included one scale for each of the four discourses (narration, description, exposition, and arqumentation). Each scale was made from six compositions written by eighth grade pupils and graded by twenty-five teachers. The Harvard-Newton Scales are said to be easier to use than the Hillegas Scale, but they make unusual restrictions and are limited in their scope. ${ }^{3}$
$I_{\text {National Society for the Study of Education, The Twenty-Second }}$ Yearbook, Part I: English Composition (Chicago, 1923), p. 42.

2 Ibid., pp. 43-44.
${ }^{3}$ Ibid., pp. 45-47.
E. L. Thorndike extended the Hillegas Scale in 1915 by substituting new samples for some of the old and by adding other samples near the middle of the scale. 1

The next year, Trabue at Columbia Univeraity made another attempt "to derive one or more scales for the measurement of abiltty along certain lines closely related to language. "2 This effort involved the testing of pupils in two New York schools over a period of three months in 1914. The test began with a list of fifty-six sentences. By selecting from this second list two sentences for each grade, each sentence difficult enough that only fifty per cent of that grade could complete it successfully, Trabue compiled Language Scale A for use from grade two through the freshman year of college. Pupils from several states took the new scale using the time limit of fifteen minutes for the twentyfour sentences. It was found that there was no difference in the abilities of children of the same grade in different states. Trabue rated the scale as of little value except as an "illustration of how improvement may be measured now that we have scales on which the consecutive steps are equal."3 He had much confidence in scales $B$ and $C$. which had been made from the original fifty-six sentences. He reported correlation coefficients of .85 with the Binet intelligence tests and of .72 with the Hillegas Scale. In 1917, Trabue supplemented the Hillegas Scale.
$I_{\text {Ibid. }}$ pp. 47-49.
${ }^{2}$ Marion Rex Trabue, Completion-Test Language Scales (New York, 1916), p. 1.
${ }^{3}$ Ibid., p. 26.
"The Willing Scale has been characterized as at once the most promising and most disappointing attempt to devise a diagnostic composition scale. This verdict is based upon the claim that Willing analyzed composition while designing his scale, and then undid what he had accomplished by recombining the scores on the various qualities into one composite grade."l In explaining his method, : 1111 ng gave these four principles "properly determinative of method in measuring written composition"; ${ }^{2}$

1. The accomplishment of pupils in written composition should be examined in their original work.
2. Spontaneity and interest in writing these compositions should be secured by assigning a subject of certain and wide suggestion to all the pupils.
3. The test should be administered in exactly the same way in all schools.
4. The papers should be graded by one person.

In the early nineteen-twenties, M. J. Van Vagenen made the Minnesota
English Composition Scales, in which he employed the desirable features of
coarsely diagnostic scales without including their inherent disadvantages. He has devised separate scales for narration, description, and exposition, and has furnished careful instructions for estimating composition merit analytically. Separate values have been assigned to each specimen in each scale for Thought, Content, Structure, and Mechanics. The three qualities are not evaluated in equivalent terms in the same scale, but each quality in each scale furnished practically an equivalent scale for the same quality in either of the other two discourses. That is, a 72 in Thought Content is not equivalent to a 72 in either Structure of Mechanics within the same scale; but 72 in Thought Content on any one of the scales is practically equivalent to a 72 in Thought Content on either of the other two scales. ${ }^{3}$
$1_{\text {National Society for the Study of Education, }}$ op. cit., p. 51
$2^{M_{0}} H_{\text {M }}$ Milling, "The Measurement of Mritten Composition in Grades IV to VII," The English Journal, VII (March, 1918), P. 193.

3 National Society for the Study of Education, op. cit., pp. 51-52.

In both the quality scales and the $C$ score ${ }^{l}$ scales the nature of the attainmert can be visualized. If a pupil's theme merits a score of 60 in English composition it means that about half of the time he may be expected to write compositions of this quality. ${ }^{2}$

An adequate measure of a pupil's ability is obtained only by finding the average of several specimens. This average represents a quality which he may be expected to fall below or surpass equally often. Even in rating a single specimen with a quality scale the score represents neither the best nor worst features of the specimen but again an average quality.... The $C$ score method is based on the assumption that the varying degrees of complexity within an ability are distributed in a normal fashion for an individual just as the amounts of ability are normally distri'uted amoung a group. ${ }^{3}$

Quality scores on an English composition scale are far more adequate than school marls in discovering what teachers of English expect of students. 4

The students themselves would soon come to know what they must achieve in order to obtain the marks they desire. (That is, if grades are based on the use of the composition scales.) The marks would also indicate to a teacher how well new students might be expected to write and the goal that would lie within their reasonable attainment. 5

Other devices for measuring the quality of written composition
were the Breed and Frostic Scale for sixth grade, the Hudelson Scales, the Lewis Narration Scale, and Lewis Letter-Vriting Scales. Of

Hudelson's Typical Composition Ability Scale it has been said that
$l_{C \text { scores are derived scores based upon deviation from the averace }}$ in units of one-tenth of a quartile deviation.

2M. J. Van Nagenen, A Teachers' Manual in the Use of the Educational Scales (Bloomington, Illinois, 192\%), p. I.
${ }^{3}$ Ibid., p. 12.
${ }^{4}$ Ibid., p. 66.
${ }^{5}$ Ibid., p. 74.
the scale suffers from two very serions disadvantages which seem to be inherent in all scale making. In the first place, scales are not diagnostic. If a pupil gets a low score the teacher has no means of knowing what is lacking or what to do about it. The second disadvantage is lack of reliability. The correlation of median judgments of the eight experienced judges on the paired compositions ranged from . 69 to .84 . Had there been only one judge (as is the case when one teacher uses the scale) the reliability coefficient could hardly have been more than .40. This is not much better than sheer guessing. ${ }^{1}$

## Indirect Procedures

During the nineteen thirties, the indirect method of measuring written composition ability was developed in "a number of ingenious objective techniques for measuring varicus aspects of the ability to write correctly." 2 These objective techniques concerned such items as grammar, usige, and punctuation. They were used to predict ability to write correctly. Trabue's sentence completion scales were among the earliest of these objective tests. By 1947, the new technique was being used in the English Composition Test by the College Entrance Examination Board, but not without slepticismo 3

Among the objective tests used at the college level are: The Cooperative English Test, The Barrett-Ryan-Schrammel English Test, The Iowa Placement Examinaticns, the Morgan Test of Modern English Usage: the Purdue Placement Test in English, and California Lancuage Test. The cooperative tests are multiple choice tests on mechanics

[^5]of expression, effectivemess of expression, vocabulary, speed of comprehension, level of comprehension; and total ccmprehension. A validity study of Form OM and the 1937 forms by McCullourh and Flanagan showed a median correlation of .53 with teachers' estimates. 1 Four levels of the California Language Test are available. The advanced test is avallable in three forms. Each form has fifteen items on capitalization, ten on punctuation, twenty-five on words and sentences, seventeen on parts of speech, thirteen on syntax, and the remaining thirty on spelling. The Barrett-Ryan-Schrammel English Test is described elsewhere in this chapter. The revised form of the Iowa Placement Tests has had its section on recognition of effective sentences eliminated, thus limiting the test to a multiple choice section of speling and true-false sections on punctuation and usage. Its norms are based solely on college freshman populations. ${ }^{2}$ In the Purdue test, there are eight scores: nemely, punctuation, grammatical classification, recognition of grammatical errors, sentence structure, reading, vocabulary, spelling, and total.

Although the objective test yield higher coefficients of reliability and validity than the composition scales, they receive much criticism. The chief criticism is

They do not yield direct evidence of the ability to use English effectively in speech and writing. Instead, objective type tests, such as the Cooperative tests of mechanics of expression and effectiveness of expression, do measure directly such skills as proofreading, error location, and criticism of written materials. Two points should be made. One is that such skills may be important in their own right and as such constitute legitimate educational objectives. If so, then progress in
$l_{\text {Constance M. McCullough and John C. Flanagan, "The Validity of }}$ the Machine-Scorable Cooperative English Test," Journal of Experimental Education, VII (March, 1939), 229-234.
${ }^{2}$ Buros, op. cit., p. 167.
these skills should be appraised periodically in order to determine the effectiveness of those parts of the program that are designed to promote these skills. The other is that such skills may be related to the ability to use English effectively in speech and in writing. If so, then measures of proficiency in these s'ills may provide an important index of the "real" ability. The validity of these Cooperative tests of mechanics of expression and effectiveness of expressicn must be considered from both these points of view. 1

The above criticism by Chester Harris of the validity of objective
language tests is supported by Harry A. Greene thus:
Most objective language tests introduce certain elements of invalidity. The invalidity arises from the fact that such tests rely on the pupil's ability to recognize, identify, and correct errors as evidence of mastery. The ability to recognize and correct certain types of errors is not in itself a convincing evidence of the fact that the usage in question is a part of the individual's own habits of expression. Pupils frequently respond correctly in objective tests to items which they do not use correctly in their own expression.

Error counts based upon a pupil's written expression are not practical substitutes for other more objective measurement of language abilities. ${ }^{2}$

## Multiple Reader Procedure

The third method of measuring writing ability, that of multiple readers of essays written on assigned subjects, has been championed by the College Entrance Examination Board and by many individual colleges. The method is used extensively in experimental situations. The college Placement Test in Fnglish and the College Entrance Examination Board Achievement Test in English Composition combine the objective type with the essay type. In the former, there are eight scores: gramar, punctuation, sentence structure, reading, syntax, vocabulary, theme, and total. The second half of the test consists of writing, in sixty minutes, an
$I_{\text {Ibid., }}$ p. 155.
Encyclopedia of Educational Research (New York, 1950), p. 394.
impromptu theme on one of ton tops. There are nc data of reliability or validity. The latter test is prepared especially for the College Entrance Examinations Admissions Board and is varied in form from year to year. In 1947, findings of the board "indicated that a full-length (sixty minutes) test composed of essay material would have markedly less predictive value of teachers' ratings of ability to write expository prose and course grades in English than a full-length test composed entirely of objective material."1

Noyes, however, had shown earlier how the coefficient of reading reliability had "climbed from. 50 in 1933 to . 84 in 1937 and .88 in June, 1939."2 He described three main lines along which the development of the comprehensive examination given by the College Entrance Examination Board had been taking place: namely, preparation of the examination, training of the readers, and grading of answer books.

Changes in the preparation of the examination included replacement of the list of topics by a single topic based on reading or other experiences common to all the candidates and the pretesting of the questions.

Readers began their training by first writing the examination in the same amount of time allotted to the candidates. The purpose of this writing was to familiarize the readers thoroughly with the questions and to enable them to understand the candidates' problems. The second phase of training was the study and criticism of previously graded sample answers. Then the readers graded a second set of sample answers.
$l_{\text {Buros, op. cit., p. }} 176$.
$2_{\text {Edward }}$ S. Noyes, "Recent Trends in the Comprehensive Examination in English," Education Record, XXI (January, 1940), 107.

Of the thirty-five readers, twenty we found to be in virtual agreement on the second set of sample answers. The elaborate training, together with standard directions for grading, was said to result in a high degree of unfformity of grading by the readers.

The third series of changes came about in the system of grading. From the "per cent" method used before 1934, the srstem of marking the examination was changed to an analytically determined series of polnts. These points were suggested by the terms and purpose of the question itself. Readers merely arranged the answer books in order of their excellence. They had no responsibility for passing or failing a student.

By 1950, the College Entrance Examination Board English test had become a cne-term examination divided into three twenty-minute sections. Three types of questicns in each section required writing; three other types were to be answered by choosing the correct answer from several alternatives. Thus the college entrance examination had come to include both "objective and written answer, desicned to e fair to all candidates."l There was already some reason to believe that the new test might "overcome many of the difficulties of setting question, scoring, administration, and low validity" ${ }^{2}$ of the past. Huddleston's study, however, shows reliability coefficients of .78 for the objective English test and .96 for the verbal test, but only .62 for reading of the essay question. 3 The first two, Huddleston deemed satisfactory; the last one, unsatisfactory.
${ }^{1}$ William C. Fells, "The College Board English Composition TestPresent and Future," Education, LXXI (September, 1950), 5.
${ }^{2}$ Ibid., p. 10.
${ }^{3}$ Edith $M$. Huddleston, "Measurement of Vriting hbility at the CollegeEntrance Lcvel: Objective Versus Subjective Testing Techniques," Journal of Experimental Education, XXII (March, 1954), 204.

Much care had been taken to obtain reliability in the reading of papers. Coward found subjective overall judgment of a composition to be faster than reading for a number of specific items, but less reliable. He said, "It is likely that the reading reliability of the two methods would be about the same if the same amount of time were taken. "l Coward' data showed no evidence that differenct abilities were evaluated by the two mathods of reading. Guerber reported reliability of . 876 for reader of exposition when each theme was rated for purpose, content, organization, language, paragraphing, spelling, and punctuation. The correlation was . 91 with the Air Force Institute test on correctness and effectiveness of expression. 2 Earlier, Van Wagenen had had each composition rated three times: once for content, once for mechanics, and once for structure. He had then computed the merit score by formula. Jordan said, "This procedure looked efficient but did not work out so well in practice because the errors of rating were probably additive. At any rate, the reliability of the scales' application was no higher than when only general merit was rated."3 Hill insists, on the other hand, that "we must bring to the reading of themes the same sort of detailed analysis which we give to understanding the literature we teach. 14

[^6]At a workshop of the Conference on College Composition and Communication in 1951, it was agreed that "the paper written at the final examination should demonstrate the objectives of the course."l A year later, the report from a similar workshop stated that "the non-objective examination seems to be most commonly used in promoting students in freshman composition." 2 Ranking was considered a secondary purpose; tests were said to require validity for both the course material and the learning process; and in scoring non-objective examinations, consensus was preferred to single-reader methods. Members of the workshop agreed that the essay examination had many advantages. At the workshop in 1954, ${ }^{3}$ there was little agreement on a specific list of minimum essentials. Instead there was doubt about their value. All members agreed, however, that content was more important than mechanics but more difficult to evaluate. They agreed also that structure of the theme was important in grading a paper.

There seems from these and other reports to be near agreement on the following points concerning the evaluation of writing ability:

1. Writing ability is best shown by samples of the student's writing.
2. An hour is sufficient time for writing.
3. Topics should be within the student's understanding and experience.
$I_{\text {"Reading and Grading Themes," College Composition and Communi- }}$ cation, II (December, 1951), 1/4-15.

2"The Relevance of Tests to the Conmunication Course," College Composition and Communication, III (December, 1952), 21-23.

3 "Reading and Grading Themes," College Composition and Communication, V (October, 1954), 109-109.
4. Testing should follow the course objectives.
5. Evaluation should be objective.
6. Pre-training of the judges increases the reliability of the evaluation.
7. It may be well to give both objective and non-objective types of tests.
8. Multiple scores are desirable, but probably not to be added.

Because of the above described lack of appropriate, valid, and reliable tests for measuring general writing ability, an attempt was made to use as criteria for evaluation those specific course objectives which could be defined. Objectives of knowledge and skill were included. Attitudes were omitted because of their subjectivity. It was assumed that if knowledge and skill are used then understanding exists. Three criteria were chosen but their scopes were treated separately. These criteria were language knowledge, correctness of performance, and organization of content. It was not presumed, however, that these criteria are completely objective. They were an attempt to rule subjectivity out of the measurement and to hold certain factors constant in the judging. Writing is a subjective exercise in which any one of many forms may be correct and in which the comprehension depends upon the experience of the reader as much as on the experience of the writer. These criteria do not necessarily measure all the writing skills.

Definition of Criteria to be Measured
By language knowledge is meant the ability to answer questions about spelling, grammar, punctuation, usage, word choice, and the like; to determine whether or not given words, phrases, sentences, or paragraphs
are correct; to detect and correct errors in writing; and to supply missing data such as words, punctuation, or capitalization. In other words, lanquage knowledge refers to the ability required by the objective type tests. Whether or not this type of testing predicts writing ability is not a part of this problem. It is presumed, however, that good performance depends upon a certain amount of knowledge.

By correctness of performance is meant the actual use of correct spelling, grammar, punctuation, capitalization, word choice, and manuscript form in original writing. For the sake of brevity, correct performance is referred to as mechanics.

Organization of content, as its name implies, concerns the development of thought. It requires the statement of an idea to be conveyed and the effective marshalling of fact, examples, reasoning, definition, and detail to communicate that idea clearly and forcefully.

To evaluate a student's language ability in terms of these three criteria, one simply as'ss three questions and seeks their answers. What knowledges does the student have about such items as spelling, grammatical usage, and punctuation? How well does he use these technical knowledges in his writing? Does he orfanize and present his thoughts on a given subject clearly and effectively?

Test Selected for Language Knowledge
As a measure of language knowleder, forms Ari, Bm, and Cm of the Barrett-Ryan-Schrammel English Test were used. This test was chosen primarily because it could be administered easily in one class period and because there seemed little liselihood that it had been taken
recently in high school by the students. The test cortains thirty items on sentence structure and diction, seventy on gremmatical forms, and fifty on punctuation. The part on sentence structure and diction contains two paragraphs in which words are underlined. Students are to indicate on the answer sheet whether or not the underlined expression is incorrectly used or incorrectly placed. The second part is a story divided Into sections of two lines each. In each section there is an underlined word. At the right of each section is a list of three items, one of which defines the right form to be used. Students are to indicate whether or not the underlined word is wrong and also to choose the right item explaining the form to be used. The third part is a story in which punctuation marks and blank spaces between words are underlined. Students are to indicate whether or not the punctuation or the lack of punctuation

## is wrong.

The Barrett-Ryan-Schrammel English Test is purported to "measure objectively student and class proficiency on the essential mechanics of English - punctuation, diction, sentence structure, and the rudimerts of grammar." 1 Its content was chosen from leading textbooks and courses of study. Correlation coefficients between scores at the beginning of a semester and final semester rarts in English composition were .73, $.74, .73$, and .75 respectively for three groups of first semester college freshman and one group of first semester college sophomores. These coefficients were said by the authors show a fair degree of validity.

Reliability coefficients were said by the authors to range from .88 , correlation between Forms Am and Cm , to .94 , correlation between the
$I_{\text {E. R. Barrett, Teresa M. Ryan, and H. E. Schrammel, Barrett-Ryan- }}$ $\frac{\text { Schrammel }}{1938 \text { English Test: Manual of Direction (Yon'ers-on-Hudson, I'ew York, }}$ 1938), p. 1.
odd and even items of Form Am. The uncorrected coefficients were . 89 , .84 , and .84.

Development of a Measure for Judging Themes
To measure ability in correctness of performance and in organization of content, themes written under the supervision of the teachers were used as tests. Because of the heavy teacher load in the English department and because of the expense of hiring and training outside judges, multiple readings of each theme were unfeasible. An alternate procedure was belleved to be a carefully prepared guide made by the participating teachers who worked as a group to reach agreement on the interpretation of each item of such guide. The guide was made in accordance with the objectives of first and second semester English composition and was called Guide for Editing Expository Themes. The guide is divided into parts: one for judging the organization and one for recording up to a given maximum, the number of mechanical errors.

## Editing Guide, Part One

The first part of the guide is a descriptive score card divided into four parts: namely, the statement and following of the main idea, the development of the theme, paragraphing, and reader appaal.

The writer had, before the experiment, outlined the principles of writing as given in the Modern English Handbook. ${ }^{1}$ She had then nade the outline into a check sheet ${ }^{2}$ for aiding students to revise their themes before handing them in. With this check sheet, the teachers
$I_{\text {Gorrell }}$ and Liard, op. cit.
${ }^{2}$ See appendix for copy.
of the experinent began. Its possibilities were discussed and other check sheets were brought to later meetings by members of the group. The aims of English 113 and English 203 were studied. Members of the group asked many questions of each other concerning customary procedures and methods of teaching. Thus all five teachers made an effort to agree upon the outcomes to be judged with the aid of the guide.

The ifist format to be considered for use included four divisions weighted as follows: main idea, twenty-five points; development, fifty points; paragraphing, ten points; and reader appeal, fifteen poirts. Under each division were questions that could be answered "Yes" or "No."1 This form was thought to be inadequate for statistical purposes, but the divisions and the questions were retained.

The second draft of part one combined the divisions and questions with descriptive scales. Under each question was a lire divided into sections numbered to indicate values zero to ten or zero to fifteen. Under the line at the left end was a description of desirable performance receiving an unlimited "Yes." Under the right end of the line was a description of undesirable performance to receive an unqualified "No." Under the middle of the line was a description presumably midway between the two extremes. On this line a judge was to check the value which expressed his judgment. The descriptions were aids in ascertaining the scores.

To test the resulting guide for reliability ten sample themes were reproduced and given to each teacher to be scored by use of the guide. Correlation coefficients were found for the ranking of these

1
See arpendix for copy.

ITFM ANALYSIS OF PART ONE OF THE EDITIMG GUIDE BASED UPON IMTERCORRELATIONS OF TEACHFRS' RATINGS

|  | Items |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Al | A2 | B1 | B2 | B3 | B4 | B5 | C | D | Tot Tes |
| $P_{12}$ | .83 $(1.19)$ | .20 (.20) | (.21) | (.01 | (.22 | $\left(\begin{array}{l}.33 \\ .34)\end{array}\right.$ | -.13 $-.13)$ | (.46 | (.45 | (.2 |
| $P_{13}$ | $\left(\begin{array}{c}.91 \\ (1.53)\end{array}\right.$ | .45 $(.48)$ | (.44 $(.47)$ | .63 $(.74)$ | $\left(\begin{array}{c}-.02 \\ (-.02)\end{array}\right.$ | $\left(\begin{array}{l}.42 \\ (.45)\end{array}\right.$ | -.17 $-.17)$ | .52 $(.58)$ | .65 $(.78)$ | 6. 6 |
| $P_{14}$ | $\begin{aligned} & .70 \\ & (.87) \end{aligned}$ | (.47 | (.48) | $\left(\begin{array}{l}.39 \\ (.41)\end{array}\right.$ | (.47 | .34 $(.35)$ | .25 $(.26)$ | .67 $(.81)$ | $(.447)$ | .3 <br> .4 |
| $\rho_{23}$ | $(1.89)$ | $\begin{gathered} .84 \\ (1.22) \end{gathered}$ | $\left(\begin{array}{c}.95 \\ (1.26)\end{array}\right.$ | $(.35)$ | $(1.38)$ | $\left(\begin{array}{c}.79 \\ (1.07)\end{array}\right.$ | .70 $(.87)$ | $\begin{gathered} .88 \\ (1.38) \end{gathered}$ | $(1.22)$ | (1.2 |
| $\mathrm{O}_{24}$ | $\begin{aligned} & .52 \\ & (.58) \end{aligned}$ | $\begin{aligned} & .4 .7 \\ & (.45) \end{aligned}$ |  <br> .47 <br> $(.51)$ | (.21 $(.21)$ | .60 $(.69)$ | (.45 | (.58 | $\left(\begin{array}{c}.91 \\ (1.53)\end{array}\right.$ | .30 $(.31)$ | $\begin{array}{r}.5 \\ \hline .6\end{array}$ |
| $P_{34}$ | $(.71$ | $\begin{aligned} & .66 \\ & (.79) \end{aligned}$ | ( 55 (.62) | .74 $(.95)$ | .74 $(.95)$ | .55 $(.62)$ | .30 $(.31)$ | $\left(\begin{array}{c}.92 \\ (1.59)\end{array}\right.$ | .60 $(.69)$ | (1.0 |
| $Q_{17}$ | (.47) | (.32 (.33) | $(.39)$ | (1.79 | .55 $(.62)$ | .37 $(.39)$ | (.40 | .62 $(.73)$ | .45 $(.48)$ | .3 6.3 |
| $\mathrm{P}_{27}$ | .38 $(.40)$ | .54 $(.60)$ | .36 $(.38)$ | -.02 $(-.02)$ | .50 $(.55)$ | .65 $(.78)$ | .28 $(.27)$ | .72 $(.91)$ | $\left(\begin{array}{c}.78 \\ (1.05)\end{array}\right.$ | .7 6.9 |
| $Q_{37}$ | .35 $(.37)$ | .72 $(.91)$ | .53 $(.59)$ | .62 $(.73)$ | .46 $(.50)$ | $\left(\begin{array}{c}.89 \\ (1.42)\end{array}\right.$ | $(.16)$ | $\begin{gathered} .76 \\ (1.00) \end{gathered}$ | $\begin{gathered} .76 \\ (1.00) \end{gathered}$ | $\begin{array}{r} .8 \\ (1.2 \end{array}$ |
| $Q_{47}$ | $(.41)$ | $\begin{aligned} & .57 \\ & (.65) \end{aligned}$ | $\begin{aligned} & .72 \\ & (.91) \end{aligned}$ | $\left(\begin{array}{l}.47 \\ (.51)\end{array}\right.$ | $\left(\begin{array}{c} .87 \\ (1.33) \end{array}\right.$ | .75 $(.97)$ | .62 $(.73)$ | $\begin{aligned} & .74 \\ & (.95) \end{aligned}$ | .67 $(.81)$ | (1.6 |
| rage $P$ | $\begin{aligned} & .67 \\ & (.82) \end{aligned}$ | .50 $(.55)$ | $\begin{aligned} & .53 \\ & (.59) \end{aligned}$ | .46 $(.50)$ | $\begin{aligned} & .58 \\ & (.67) \end{aligned}$ | .60 $(.69)$ | $\begin{aligned} & .33 \\ & (.34) \end{aligned}$ | $\begin{gathered} .76 \\ (1.00) \end{gathered}$ | $\begin{gathered} .62 \\ (.73) \end{gathered}$ | (.6 |

Note: The numbers in parentheses are Fisher z-functions. Pl2 represents the correlation of ranks given by judges one and two; $\mathrm{Pl}_{13}$, of judges one and three; and so on.
themes by each pair of judges on the entire themes and on each item of part one. Table VI shows all the rank correlation coefficients for the first part. To get the averages, all coefficients were translated by table ${ }^{l}$ into Fisher's z-coefficients; then they were averaged and the results translated back to rho's. This was done with the assumption that rho can be treated as can the product-moment r. 2 The sampling distribution of the function $z$ is said to be approximately normal. ${ }^{3}$ The coefficient of .67 for the test was significant at the .05 level but not at . 01. 4

Item $C$, with an average coefficient of .76 , was the only item that was significantly reliable. This coefficient indicates with some confidence that the judges agree on a student's ability to paragraph his theme effectively. The question was, "Is each paragraph justified and sufficiently developed?"

Item B5 had the lowest coefficient. Two pairs of judges showed negative correlation; that is, one fudge tended to rate high those themes that the other rated low, keeping the rank order opposite rather than parallel. The question of item five was "Is the point of view appropriate and consistent?" Further study of this item showed differences of interpretation and lack of consensus as to the relative importance of point of view as a factor to be tested. The item was thrown out.
${ }^{1}$ Henry E. Garrett, Statistics in Psychology and Education, (New York, 1953), p. 426.
${ }^{2}$ Ibid., p. 355.
${ }^{3}$ Ibid., p. 198.
${ }^{4}$ Ibid., Table 25, p. 200.

The second least reliable item was B2, "Is the substarce ir logical order?" It was revised to read thus: "Is the substance clear, properly connected, and in proper order?"

A new item was added to replace the omitted B5. It asked, "Is there valid reasoning supported by fact?" Then all of the items and descriptions were revised to mare them more specific.

Complaints from judges about the difficulty in deciding what score a student had made on any given item led to the removal of the numerical values altogether from part one. Directions were changed so that a judge merely made a check mark above the description which best fit the student's performance on that item. If a description was too good, but the lower description was not good enough for the perticular performance, then the mark was to be made between the two descriptions. This arrangement made five possible markings. No score was placed on this part of the guide by the fudge. Later the values of zero to four were to be superimposed upon each item for statistical purposes. This made a total score of thirty-six points instead of the original one hundred. The trial guide and three other guides of the developmental stages are in appendix B. Following is the revised form of part one of the guide as it was used in the experiment.

GUIDE FOR EDITIMG EXPOSITORY THEMES
I. Organization of Content

Directions: Place a check above the description that is true of the paper. If one statement is insufficient and the next is too inclusive, check between the two.
A. Main Idea

2. Is the statement actually developed throughout the theme?
$L$
Completely and Developed, but with some Ignored
clearly developed digressions or omissions
B. Development of the Theme

1. Relevance: Is all irrelevant matter excluded from the theme?

| All matter relevant Minor irrelevance | Little or no <br> relevance |
| :--- | :--- |
| to the main idea |  |

2. Coherence: Is the substance clear, properly connected, and in proper order?


Clear, in proper order, Clear and in proper Poor order, lack of with proper use of order, but with some transition, improper connectives and tran- faulty connectives connectives, not sition

## clear

3. Completeness: Is there enough detail to develop the subject?

Proper use of detail, Minor weaknesses Too general, lack incident, illustration, in use of detail of detail general and specific terms
4. Proportion and Emphasis: Are proportion and emphasis appropriate to the purpose?
Proper coordination Minor errors in No subordination of and subordination, proper apportionment of space
subordination minor details, lack of proper emphasis, or lack of proportion
5. Fact and Reasoning: Is there valid reasoning supported by fact?
$\begin{aligned} & \text { Ample and accurate facts, Minor weakness } \\ & \text { valid reasoning }\end{aligned} \begin{aligned} & \text { Overuse of judgment, } \\ & \text { in use of fact } \\ & \text { and judgment }\end{aligned}$
C. Paragraphing: Is each paragraph justified and sufficiently developed? $\stackrel{\rightharpoonup}{5}$ $\begin{array}{lll}\text { Fully justified and } & \text { All justified, but } & \text { Unjustified } \\ \text { sufficiently developed } \\ \text { some incomplete }\end{array}$ sufficiently developed some incomplete paragraphs
D. Reader Appeal: Are the words, sentences, and illustrations appropriate and the beginning and end clear-cut and effective?

| Forceful, smooth, varied |  |  |
| :--- | :--- | :--- |
| and interesting sentences; | correct, but | Choppy, awkward, |
| appropriate words and | monotonous and | unintect, and |
| illustrations; clear-cut | unforceful | beginning and end; |
| beginning and end |  | poor choice of words |
|  |  | and illustrations |

This new edition of part one of the guide can be said to have face validity because it is made up from the specific aims of the course and in terms of the students' own textbooks. Data obtained from scoring themes one, four, and ten of the experiment revealed reliability coefficients of .88 , .86, and .88 respectively by the Kuder-Richardson formula 21. Corrected for spurious correlation, ${ }^{1}$ the coefficients are .73, .70, and .72 respectively. These corrected coefficients are higher than the original uncorrected .67, and the Kuder-Richardson formula is reputed to underestimate reliability. ${ }^{2}$
$1_{\text {The correction }}$ for spurious correlation is $\sqrt{\frac{1}{N}}$ when $N$ equals the number of items. See Garrett, op. cit., pp. 399-401.
${ }^{2}$ G. F. Kuder and M. W. Richardson, "The Theory of the Estimation of Test Reliability," Psychometrika, II (September, 1937), 159.

Another item analysis was made of the final guide to find item difficulty and discriminating power. This analysis was based on the scores made by the highest twenty-seven per cent and the lowest twentyseven per cent of the students writing the first test theme. Since ten different classes taught by different teachers were included in the study, the highest twenty-seven per cent and the lowest twenty-seven per cent of each class were chosen and the total of these was used for the item analysis.

The percentage of successes for each item was determined by formulal for the highest twenty-seven per cent and for the lowest twentyseven per cent. These percentages were then used to enter an item analysis chart ${ }^{2}$ to determine the indexes of difficulty and of discriminating power of the items. Table VII gives the data and the indexes.

$$
\begin{aligned}
I \\
P=\frac{R-\frac{W}{K-1}}{N-N R}
\end{aligned} \quad \begin{aligned}
\mathrm{P} & =\text { proportion of testees successful on the item } \\
R & =\text { number of tests } \\
V & =\text { number of testees successful on the item } \\
V R & =\text { number of testees not successful on the item } \\
K & =\text { number of choices in theading the item }
\end{aligned}
$$

${ }^{2}$ Frederick B. Davis, Item-Analysis Data, (Cambridge, Massachusetts, 1946), pocket.

TABLE VII

ITEM ANALYSIS OF THE FIIJAL FORM OF THE EDITING GUIDE, PART I: CONTENT

|  | Items |  |  |  |  |  |  |  |  | Total Test |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A1 | A2 | Bl | B2 | B3 | B4 | B5 | C | D |  |
| Upper 27\% <br> Passed* <br> Failed | $\begin{aligned} & 30 \\ & 10 \end{aligned}$ | $\begin{aligned} & 23 \\ & 17 \end{aligned}$ | $\begin{array}{r} 34 \\ 6 \end{array}$ | $\begin{aligned} & 29 \\ & 11 \end{aligned}$ | $\begin{aligned} & 20 \\ & 20 \end{aligned}$ | $\begin{array}{r} 32 \\ 8 \end{array}$ | $\begin{aligned} & 26 \\ & 14 \end{aligned}$ | $\begin{aligned} & 26 \\ & 14 \end{aligned}$ | $\begin{aligned} & 22 \\ & 18 \end{aligned}$ | $\begin{array}{r} 35 \\ 5 \end{array}$ |
| Lower 27\% <br> Passed <br> Failed | 5 35 | $\begin{array}{r} 0 \\ 40 \end{array}$ | $\begin{aligned} & 10 \\ & 30 \end{aligned}$ | $\begin{array}{r} 3 \\ 37 \end{array}$ | $\begin{array}{r} 0 \\ 40 \end{array}$ | $\begin{gathered} 4 \\ 36 \end{gathered}$ | $\begin{array}{r} 0 \\ 40 \end{array}$ | $\begin{array}{r} 1 \\ 39 \end{array}$ | $\begin{array}{r} 1 \\ 39 \end{array}$ | $\begin{array}{r} 0 \\ 40 \end{array}$ |
| Proportion <br> Passing <br> Upper $27 \%$ <br> Lower 27\% | $\begin{array}{r} .69 \\ -.09 \end{array}$ | $\begin{array}{r} .53 \\ -.25 \end{array}$ | $\begin{aligned} & .81 \\ & .06 \end{aligned}$ | $\begin{array}{r} .69 \\ -.16 \end{array}$ | $\begin{array}{r} .38 \\ -.25 \end{array}$ | $\begin{array}{r} .75 \\ -.13 \end{array}$ | $\begin{array}{r} .56 \\ -.25 \end{array}$ | $\begin{array}{r} .56 \\ -.22 \end{array}$ | $\begin{array}{r} .44 \\ -.22 \end{array}$ | $\begin{array}{r} .84 \\ -.25 \end{array}$ |
| Difficulty <br> Index** | 41 | 37 | 46 | 41 | 32 | 43 | 38 | 58 | 34 | 46 |
| Discrimination Index*** | 67 | 56 | 58 | 67 | 49 | 70 | 58 | 58 | 52 | 78 |

* To be passing, the score must exceed 2 on an item or 18 on the entire test. Hence only scores of 3 or 4 are passing marks. See table of scores in appendix B.
** Difficulty index of .50 is desirable.
*** Index above . 20 ordinarily shows sufficient discrimintation power. $\mathrm{N}=40$ upper +40 lower $=80$

Items B3 and D lie outside the mean of thirty-five to sixty-five recomended by Jordan, 1 but their face validity caused their retention In the guide. The indexes of discrimination are all above fifty. Davis said that "items with discrimination indices above 20 will ordinarily be found to have sufficient discriminating power for use in most achievement and aptitude tests."2 There is a possibility that all of the indexes are really higher than computation shows because of two factors. Firat, the proportions were corrected for blind guessing. Yet on a score of this kind there was not the question of guessing. The correction was made, navertheless, on the assumptions that writing a theme effectively might be as accidental as answering a question correctly. The second factor which possibly lowers the discrimination index is the arbitrary passing score of more than two. On the other hand, experimental error may have augmented the index for one or more items.

Fully aware of the inadequacy of the first part of the guide, the experimenter accepted it as the best instrument available for testing ability to state a main idea about a given topic and to develop that idea clearly and effectively.

## Editing Guide, Part Two

The second part of the guide was not subjected to so much testing as was the first part. The zero point for this part of the guide was so far above the number of errors made by students, that statistical

$$
\begin{aligned}
& 1_{\text {A. M. Jordan, Measurement }} \text { in Education (New York, 1953), p. } 56 . \\
& { }^{2} \text { Davis, op. cit., p. } 15 .
\end{aligned}
$$

interpretation of the results obtained was doubtful. However, some statistical treatment was given.

The first draft of the second part of the guide was not believed to have face validity. Teachers believed that the weights were out of proportion to the relative importance of the items. Sentence structure, grammar, diction, punctuation, manuscript form, spelling, and research had been listed and a proportionate part of one hundred points assigned to each. 1 The list was revised to contain four sections: namely, spelling and correct words, grammar, punctuation, and manuscript form. For the last three sections, subdivisions were listed as reminders of the type of item included in that section. In the case of grammar, the final draft listed agreement of subject and verb, use of correct parts of apeech, proper relation of phrases and subordinate clauses to the rest of the sentence, proper tense forms, and correct sentences as the areas of technical writing behavicr wherein errors would li:ely be found. A copy of the second part of the editing guide follows.

## II. Correctness of Performance

Directions: Indicate by a check the number of errors made. Then record In the blank the number of points deserved for the item. Total the points at the end.
A. Spelling and Correct Words ( 20 points): Deduct five points for each error up to four.
LNo errorg/ 1 error / 2 errors/ 3 errors/4errors/Total Points $\qquad$
B. Grammar ( 50 points): Deduct ten points for each error up to five. No errors/ 1 error/2 errors/3 errors/4 errors/Total Points $\qquad$
${ }^{I_{S e e ~}}$ appendix for Score Card for Rating Expository Themeg.

1. Agreement of subject and verb
2. Use of correct parts of speech
3. Proper relation of phrases and subordinate clauses to the rest of the sentence.
4. Proper tense forms
5. Complete, correct sentences
C. Punctuation (20 points): Deduct four points for each error up to five. (Period, comma, colon, semi-colon, question marks, etc.)
/No errors/l error/2 errors/3 errors/4 errors/5 errors/ Total Points $\qquad$
D. Manuscript Form (10 points): Deduct points for each error up to five. (Capitalization, abbreviation, title, margin, legibility, syllabication, etc.)
/No errors/1 error/ 2 errors/3 errors/4 errors/5 errors/Total Points $\qquad$
Total Number of Points of Correctness

As in part one, the numerical scores were removed from the line to be marked. In the revised guide, the judge is expected to check the section of the line which indicates the number of errors made by the student. Then at the right of the page, he enters the score for that section. This score is obtained by deducting from the points allotted to the particular section, the product of the number of errors times the amount to be deducted for one error. For example, twenty points are allotted to spelling, and five points are to be deducted for each error up to four. If a student has missed three words, the judge checks the "3 errors" on this line, multiplies three by five, subtracts the product from twenty, and records the result in the space provided.

When the Kuder-Richardson formula was applied to the first set of one hundred fifty themes, the resulting reliability coefficient was .96. When repeated on the next two sets of scores, the test gave a coefficient
of .96 for theme IV, and .95 for theme X. When corrected for spurious correlation, these three coefficients became 。86, .87, and . 86 respectively.

The second part of the guide, lile the first, was adopted with temerity as to its adequacy to determine a student's ability to write correctly; but its face validity and the comparability of the reliability coefficients to those yielded by standardized objective tests made it the most desirable means available for measuring improvement in mechanical correctness of performance to the extent of comparing two groups of students.

Table VIII shows reliability coefficients obtained for all three instruments. To get these coefficients there were three applications of the Kuder-Richardson short formula for estimating reliability. Data for these applications were the three periods of testing in the first, fourth, and tenth weeks of the experiment.

TABLE VIII
RELIABILITY COEFFICIENTS OBTAINED BY MEANS OF THE KUDER-RICHARDSON FORMULA

| Test | First <br> Week | Fourth <br> Week | Tenth <br> Week |
| :--- | :---: | :---: | :---: |
| Barrett-Ryan-Schrammel | Form Cm <br> .91 | Form Bm <br> .91 | Form Am <br> .92 |
| Editing Guide Score: Mechanics | Theme I <br> .96 | Theme IV <br> .96 | Theme X <br> .95 |
|  | Editing Guide Score: Content | Theme <br> .86 | Theme IV <br> .86 |

No attempt was made to combine the scores for the three criteria. Data obtained by mans of the objective test, of part one of the guide, and of part two of the guide were to be analyzed separately. Therefore It was not necessary to check the reliability of the three measures combined. However correlations were found of the three initial scores on language knowledge, mechanics, and content with each other, with final grades in the course, and with scores made on the American Council on Education Psychological Examination. Results as shown in Table IX show the the content scores obtained from the use of the first part of the editing guide to be the best predictor of final grades. This fact was interpreted to mean that perhaps the first part of the editing guide is the most valid of the measures for ascertaining changes in writing ability in accordance with the objectives of the two courses in freshman composition as interpreted by the teacher.

INTERCORRELATIONS OF INITIAL TESTS ON LANGUAGE KNOWLEDGE, MECHANICS, AND CONTENT WITH FINAL GRADES IN ENGLISH AND WITH SCORES ON MENTAL ABILITY
$(\mathrm{N}=180)$

|  | 1 | 2 | 3 | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  | 49 | .45 | .38 | .33 |
| 2 |  |  | .48 | .45 | .52 |
| 3 |  |  |  | .23 | .40 |
| 4 |  |  |  |  | .77 |

Legend:

1. American Council on Education Psychological Examination (Total Raw Scores)
2. Berrett-Ryan-Schrammel English Test
3. Mechanics Raw Scores (Part Two of the Editing Guide)
4. Content Raw Scores (Part One of the Fditing Guide)
5. Grades at End of the Semester

## PROCEDURE OF THE EXPEPIMENT

Four Weeks of Preparation

In order to test the hypothesis that having some of the themes edited cooperatively by students causes more improvement in writing than does having all themes edited by the teacher, it would have facilitated statistical interpretation to heve had two groups of students chosen at random and rar Zomly assigned to the experimental and control groups. To equate these two groups with respect to mental ability, inftial writing skills, interests, and numbers of students was also desirable.

Although it was unfeasible to assign the subjects at random or to equate the groups in this study, a conditioning period was planned in which pupils and teacher might learn to understand each other; in which skill could be developed in handling the tools of the experiment; and in which the regular learning pattern could be started.

The scheduling of a conditioning period in the experimental procedure was motivated by Courtis' criteria for increasing the certainty of results in experimenting. Courtis advised the giving of four tests and then rematching the groups if they were found to be not equivelent. When the groups were equated, the experimental factor could be introduced. He warned that further precautions are needed in controlled
experimentation than are usually taken to assure reliable information. He pointed out as a typical result of controlled experiment that the control group often "exceeds the experimental in all tests save one, and then in the final power test, the experimental group has slightly high scores."l This conflicting difference, Courtis said, is due to the failure to consider rate of growth and degree of development at the beginning of the growth cycle.

In the light of Courtis' advice, a period of like procedure for both the control and the experimental groups was expected to lessen experimental error by better orienting students and teachers. It would take out of the data to be used for comparing the two groups some influences due to newness of the course, change of teachers, new texts, schedule adjustments, and so on. There would have been time for learning patterns to begin to form before the experimental factor was introduced. For these reasons the experiment covered ten weeks, but the experimental factor was withheld until the fourth week. Thus an attempt was made to bring procedure and environment under control before beginning the student editing.

At the beginning of the conditioning period, the initial tests were given. These included the American Council on Education Psychological Examination, Form Cm of the Barrett-Ryan-Schrammel English Test, and a theme to be scored for mechanics and for organization of content. The first test had been administered by the college at enrollment time. Records of each student's scores were obtained from the college testing bureau.
${ }^{1}$ S. A。 Courtis, "Criteria for Determining Equality of Groups," School and Society, XXXV(iume 25, 1232), ri5。

Each teacher had a copy of the following plan of the experiment and also a calendar of days on which themes were to be written or tests to be given.

## PLAN OF THE EXPERIMENT

1. Two equated groups of English 203 and English 113 are to be taught by five teachers, each having one section in which the students edit five of ten themes and cne section in which the teacher edits all ten themes. The section in which the students edit five themes is to be known as the group editing or experimental section; the section in which the teacher edits all ten themes is to be known as the teacher editing or control section.
2. Beginning February 4, and ending with the Easter holidays on April 14 , students will write ono theme per week.
3. Themes I, IV, and X will be test themes and will be a. written on common subjects chosen by the teacher;
b. marked and graded by the teachers, using the descriptive scale previously prepared cooperatively by the teachers whose classes are involved; and c. written in class.
4. Themes I, II, III, IV, and $X$ will be edited by the teachers of the students who write them in both sections.
5. Themes $V$ and IX inclusive will be edited by students in groups designated by the teacher and his class in the experimental sections.
6. Themes $V$ to IX inclusive will be edited by the teacher in the control classes.
7. The only difference between the two sections will be the group editing of five themes by the students of the experimental section.
Q. If an opaque projector is to be used in the experimental section, then it should by all means be used in the other section also, and vice versa.
8. If letter grades are to be placed on themes of one section, they should be also placed on the themes of the other section. The same is true of any special penalties.
9. If students of one section keep the record of errors as suggested in their texts, so should the students of the other section.
10. A diary should be kept of all activities in each section. It will be helpful in interpreting the results.
11. Conferences for one section must be on the same basis as conferences for the other.

The first theme for testing was written in a class period of about forty-five minutes. It was based on reading done outside of class, but students did not receive the topics for writing until they arrived in class. The topic for English 113 classes was Self-discipline. Each student was to narrow the topic to an area in which he was interested, to state in a sentence an idea that he would like to share about the chosen phase of the topic, and then to write a paper explaining the idea. The topic might or might not involve the previous reading. The dictionary might be used as an aid to spelling, punctuation, and word meanings.

The matter of narrowing a topic had been studied and some drill had been done in narrowing topics to fit certain occasions and certain lengths of themes. Students had been shown in class lecture that

Almost as a part of the selection of a topic, the writer should decide in general what he wants to say about the topic, why he wants to say it, and what is his attitude toward it. A atudent pianning a theme should think about his purpose and his main idea as he collects material, and before he begins writing he should phrase his main idea in a complege sentence.

As he writes, the writer may, of course, change his mind or collect new evidence which will result in a modification of his main idea; but until he can tie himself down to some tentative view, he has not thought enough.l
$I_{\text {Robert M. Gorrell and Charlton Laird, Modern English Handbook }}$ (New York, 1953), p. 11.

For source material for writing the students had read and discussed the biographical sketch, "Young Man Washington"l by Samuel Eliot Morison. Chey had tried to state the author's main idea as he probably thought Lt before writing. Students did not know during the reading and discussion that they were later to write on a topic related to the sketch or ;o their discussion. However, they were given notice at the meeting
 ;he sketch for their writing.

For English 203 The Value of History was the general topic. ;tudeñts might write on Evaluation of High School History Courses or in How History Increases Enjoyment of Travel. The procedure for writing .n clàss was the same as described above for English 113 except that .nstead of the choice of two given topics as for 203 students were to arrow one general topic to a scope to suit the time and their interests. 'his difference placed a greater restriction upon the writing in inglish 203.

Preparation for the theme on history was the reading of "The Value If History" by $G$. M. Trevelyan. ${ }^{2}$ The essay begins thus: "What, then, re the various ways in which history can educate the mind?" This uestion, with the similar study questions at the end of the selection, erved to direct students' thoughts toward the two assigned topics. itudents were not give the topics for writing until they came to lass to write.
$I_{\text {Perrin et }}^{\text {al.. }}$ op. cit., pp. $222-232$.
${ }^{2}$ Souers et gl., op. cit., pp. 89-94.

In all sections students were pernitted, even urged, to use the dictionary as an aid to spelling and to word choice. No notes or other aids were used, however.

All themes were marked by the teacher and were returned to the students for study and correction. Although grades were not to become a part of the experimental data, each teacher used his own judgment and policy on the awarding of grades to papers except for one restriction. What was done about grades in one section was also to be done in the other. The same restriction was placed on the correction of papers. For example, if the members of one section rewrote the paper, then the students in the corresponding section also rewrote. Some pairs of sections rewrote the themes; others made the necessary corrections on the paper. If there was not enough room to make the correction at the spot of the error, then the correction was made on the bact of the paper. In some pairs of sections, each misspelled word was written correctly five times on the back of the paper or in the student's own notebook. ':Then the corrections had been made, the themes were returned to the teacher to be retained in the student's file until the end of the semester.

When the students had returned the test themes, the teacher rejudged all of them, using the editing guide. A copy of the guide, properly chacked, was attached to each theme. These original themes with their narkings and corrections and with the attached guides bearing judgmerts on content and on mechanics were collected from all teachers at the end of the experiment as part of the record for the study.

The four weeks following the first series of tests inclided the regular activities of lecture, class discussion, and one theme per week. The test theme, of course, served for the first week; two were written during the next two weeks; and the four th one was part of the second series of tests.

In English 113, lectures and class discussions concerned the selecting and organizing of proper materials to develop the main idea, the weaknesses and errors found in the themes written, and the readings. The proper use of general and specific terms in writing not only made occasion for lecture and class discussion; but it also necessitated drills in finding specific words, in discriminating between degrees or kinds, and in stating specific details to develop a general statement. ${ }^{1}$ The knowledge to be obtained was that good writing develops generalizations with specific details that illustrate, explain, symbolize, substantiate, and interest. Amplification of these functions of specific detail included the study of techniques for citing particulars, giving examples, and illustrating by means of incident or by analogy. Samples of adequate and inadequate illustration were compared. So were samples of valid and invalid illustration. Drill was provided in listing concrete details for given terms, in illustratinggiven statements, and In improving porrly illustrated passages. ${ }^{2}$ Each set of themes provided occasion for the study of spelling, usage, punctuation, etc, according to the general needs of the class.

IGorrell, op. cit., pp. 23-2\%.
${ }^{2}$ Ibid., pp. 37-43.

The theme of the second week followed the reading and discussion of "R. M, S. Titanic" by H. N. Baldwin. ${ }^{1}$ The same general topic of Self-discipline was used a second time. Students were asked to try to do a better job of nerrowing the topic, to use more detail, and to draw from both of the previous readings and from their own experience and observation for illustrations. The writinc was done out of class so that students would have time to revise and to copy their papers in ink on unruled paper. the themes were marked by the teacher and returned to the students for further revision and rewriting.

The themes for the third week were based on past and present experiences in the use of the English language. Suggested topics were My Needs in English and My High School English Courses. Students might alter the topics to suit their interests. About fifteen minutes of class time was given for starting the writing. The students finished the papers at home. These themes were not marked, but the teacher made a list of the errors found in the papers anc explained the proper forms and uses to the class. Appropriate rules of spelline and usage were explained and illustrated, with emphasis always on the correct rather than the incorrect.

From time to time, the teacher used five or ten minutes to answer students' questions about the review guide. The review guide was made from observations of past Ireshman themes at Oklahoma Agricultural and Mechanical College. It contained rules and illustrations of correct forms according to those rules. Each student of English 113 took a test on these principles and on the accompanying spelling test at midterm. If he failed this test, his grade was lowered one letter grade.

[^7]In the English 203 secticris, students stucied various models of exposition and then tried to put into use the techniques they had found. One pair of sections read Edwin Whipple's "Nebster and the Neighbors"l and made a thorough study of it. Then each student wrote a paper on the following assignment:

If Whipple had been telling the story as an illustration of Webster's popularity rather than as proof of the strength of his early associations, he would probably have given much the same facts, but the emphasis would have been different; the section about the "neighbors" would have been shortened or omitted, while the persistence of the clients in the face of several refusals would have been stressed. Suppose the story had been told as proof of ':lebster's vitality and capacity for hard work - which details would then have been important. ${ }^{2}$

Ancther pair of sections learned that
One way of testing one's ability as a writer, and especially one's ability to stick to a point and subordinate everything to a central purpose, is to take a story which someone has told in all its details and rewrite It as an illustration of an idea, keeping only such details as are necessary to bring out the main point. 3

These atudents atudied as an example of this technique a letter from Abraham Incoln to Joshua Speed telling about a mysterious disappearance. They also read Whipple's essay. The theme assignment was to rewrite Lincoln's letter, excluding certain material and emphasizing certain other material in order to make a point.

A third pair of sections reviewed carefully the principles governing choice of subject, using the handbook and a mimeographed check list. Then each student wrote a theme on a topic of his owr choice.
$I_{1}$
Souers, et al., op. cit., pp. 9-12.
${ }^{2}$ Ibid., pp. 6-8.
${ }^{3}$ Ibid., p. 305.

The revision of Lincoln's letter was done in class, but all of the other six sections wrote their second week themes outside of class.

In the third week, sections H-l wrote out of class on subjects chosen by the individual students. Sections G-2 studied short selections on travel in the far East. The selections were from the writings of Mark Twain, Alexander William Kinglake, Lady Mary Wortly Montagu, Sir Richard Burton, and R. B. Cunninghame Graham. Each student wrote a paper showing which one of the five he would prefer to have as a traveling companion. Sections D-3 did the study of Lincoln's letter and wrote a theme on one of the topics suggested in the text. Sections A-4 read "Two Weddings" by Nathaniel Hawthornel and "Life at Parham" by George Crabbe 2 and studied the methods of development used by the respective authors. Then as an exercise in the use of comparison and contrast, students wrote themes of three to five hundred words comparing two engines, two motives for going to college, or some other similar subject. All sections except G-2 wrote outside of class. All papers were marked by the teachers and were returned to the writers for correction.

Six Weeks of Student Editing
The theme for the fourth week was part of the second set of tests, and therefore was also the beginning of the student editing period. All students wrote in class on subjects not known to them until they

[^8]arrived to write. The theme followed the administration of Form Am of the Barrett-Ryan-Schrammel English Test. Students of English 113, with the reading of Sidney Howard's play, "The Silver Cord, "I as preparation, narrowed the topic Favoritism and adapted it to their own interests. In English 203, Robert Louis Stevenson's "Despised Races" ${ }^{2}$ furnished background for the writing. Students wrote on Despised Races in America or on Despised Races - an Offense against Common Sense. Procedure for marking, correcting, and filing these themes was the same as for the first test themes.

After this second testing, the experimental factor of student editing was introduced. The editing guide was explained to all students in both groups. Each student was given a copy to be kept in his notebook for study and for reference. After sufficient discussion had been made of the guide, no more use was made of it in the control sections except by individual students who chose to use it as reference. The editing of themes in those sections continued to be done by the teacher as in the past. Teachers explained to all sections, however, that the points on the guide would be the basis on which their writing would be judged.

In the experimental sections, the next five themes were edited by the students with the supervision and guidance of the teacher. Some differences in procedure occurred as the following reports will show.
lerrin, et al., op. cit., pp. 293-327.
${ }^{2}$ Souers, et al., op. cit., pp. 76-81.

In the sections B-7, which were the only classes of English 113, groups of three or four students were appointed by the teacher who tried to distribute the weak and the strong students among the groups. Members of each group exchanged themes so that no student had his own. Each student was responsible for marking the errors on the paper, for checking a copy of the review guide properly, and for writing any comments which he believed to be helpful to the author of the paper. His name was added to the paper as the editor of it, but he discussed various items of checking with the group and with the author of the paper. The teacher moved about the room observing the activities when he was not involved in settling controversies or otherwise advising about papers. Each writer took his paper and the criticisms home to further edit his work and to rewrite the paper. Students were warned to look up all but the most obvious corrections to make sure that they did not merely exchange one error for a new one. Both the old and the revised copies were handed to the teacher, who studied them for points to be discussed in class. Thus the difficulties of the students became the subject matter for class study.

Sections H-l edited in pairs, each pair of students having two papers not their own. They corrected their papers, but did not rewrite.

In sections G-2, students exchanged papers, and writer and grader conferred briefly about the papers. The teacher of these sections reported that students made more use of these conferences and of conferences with the teacher as time went on. These sections had tried the larger groups at first but had found them not practical. The teacher prepared the students by discussing items of the guide and illustrating
them by examples from student themes and from the textbook. She told them how she evaluated themes, scored sample themes for them and invited questions and comments from the class. Student-edited papers were not rechecked by the teacher or rewritten by the students. Students of sections D-3 also worked in pairs. The papers were taken up and redistributed so that no one had his own or his neighbor's paper. Each student checked a paper, first for mechanics and then for content. Then he paired with another student and exchanged papers but not criticisms. The two discussed their differences of opinion. Then each student checked the editing sheet and wrote a brief general criticism of the paper, commenting on both good and bad qualities. Pupils had agreed to keep the criticisms anonymous; so instead of writing his name on the score sheet the critic wrote on another sheet his name, the name of the author, and the title of the theme he edited and handed it to the teacher. The teacher took up the papers and criticisms, recorded them with no grades, spot-checked a few, and returned them to the writers at the next class meeting with comments on what his spotchecking had revealed. The student was encouraged to look over his score sheet and to take issue in writing with any judgment made thereon; then after making the usual corrections, he returned the theme and criticisms to the teacher for filing. When a student was absent, his paper could not be checked with the others. When possible, this student went to the teacher's office to check a paper. Some papers, however, never found checkers.

Students of sections A-4 worked in pairs, but their procedure was slightly different. Each student was first reader on one paper and second
reader on another, making corrections in the left margin according to the editing guide. Teams might confer with each other or with the teacher. At the end of the hour, all papers were returned to their authors. Before the next class period, each student was to study the student editor's marks, make such corrections as he agreed needed to be made, and put question marks beside notations with which he did not agree. Then the teacher took the papers and rechecked the points in question. Papers were again studied by the writers. To prevent carelessness, the teacher often spot-checked a complete performance of the student editor and assigned a grade on the performance.

As is indicated above, all themes in English 113 were rewritten; none were rewritten in English 203, but corrections were made. The greator skill of students in the advance course made the correcting a simpler matter. Incorrect sentences found often in the papers of the first course made rewriting desirable. Whether or not grades were to be assigned to themes depended upon the teacher and the occasion, but an effort was made to keep grading alike for corresponding control and experimental sections. In addition to the conference situation in the classroom, all students of all sections were encouraged to come for private conferences with the teacher. Each teacher had regular office hours when he was available for conference. All themes were filed in the students' individual folders to be available for these conferences.

Theme topics varied by teachers as in the orientation period, but were held constant for each corresponding pair of sections. For the most part topics came from readings in The Writer:s Reader. Three teachers, however, utilized the readings from a novel. Sections H-1
wrote themes six to nine on topics suggested by their study of Far from the Madding Crowd; sections G-2 wrote theme nine about a memorable ser from Cry, the Beloved Country; and for themes seven to nine, sections A-4 wrote character sketches from Cry, the Beloved Country.

## Final Tests

The tenth theme was the final test of writing, and the same procedure was used as had been used for themes one and four. Students of English 113 narrowed the topic Integrity, stated a main idea, and wrote They had read "Luxury of Integrity"l by Stuart Chase as background for the writing. However, each student had the privilege of deviating from the reading if he wished. For the sections of English 203, there was only one topic. Students were to evaluate some building on the campus, using the architectural principles set forth in Lewis Mumford?s "Thomas Jefferson, Architect."2 The test theme was followed by Form Am of the Barrett-Ryan-Schrammel English Test.

## Collection of Data

Each teacher edited each set of test themes and arranged it with the accompanying copies of the editing guides in folders according to sections and presented them as records for the study. He also includod the answer sheets for all three forms of the Barrett-Ryan-Schrammel English Test. The students of sections B-7 had written an evaluation of their semester's work. These papers also were retained for use in the study.
$1_{\text {Perrin, et al., op. cit. }}$ pp. $551-556$.
$2_{\text {Sours, }}$, et al., op. cit., pp. $11_{4}-123$.

Each teacher filled out a tabular form showing the following information about each theme: the subject of the theme, whether the theme was written in class or out, the nature of the assignment, type of preparation for writing the theme, methods of editing, whether or not the them was rewritten, comments about unusual or exceptional incidence of procedure or outcome. The teacher was asked to write on a separate page his own personal evaluation of the experiment as it applied to his own class For this report the following questions were given as aids:

1. Which class was easier to teach? Do you think that this difference was in any respect due to the student editing?
2. What difficulties were involved?
3. What were the advantages and the disadvantages in the light of pupil needs, teacher effort, time saved, etc.?
4. What important attitudes were observed in each student?
5. What were your procedures for handling the pupil editing? How many people made a group?
6. In what respects did the group editing section seem to improve most? The teacher editing section?
7. What other observations or evaluations have you or your pupils to offer?

The data obtained from these evaluations by teachers, from the three sets of test scores, and from the three test themes are examined in the next chapter; and by means of the evidence they present, the hypothesis is tested to see if more improvement is effected by the editing of themes by students than the editing by the teacher.

## ANALYSIS OF THE DATA

Whether to accept to reject the hypothesis that having some of the themes edited by the students causes more improvement in freshman composition than does having all the themes edited by the teacher depends upon observations of the procedure outlined in chapter four, in which the application of the Earrett-Ryan-Schrammel English Test and of the sditing guide indicate change or lack of change in performance. This procedure involved teaching ten sections of freshinan composition for four'weeks of uniform orientation, then introducing the method of student sditing in five sections but continuing the other five sections without the student editing. Tests were given at the beginning of the first and the fourth weak and at the end of the tenth week.

Because of the uneven sizes of the sections, fifteen subjects were Irawn at random from each section, making a total of one hundred fifty for statistical treatment. All observations and tabulations in this shepter besides the evaluations made in the teachers: reports are based on data from those one hundred fifty subjects.
'The analyses of the data are of four types: an empirical summary of individual gains and losses in control and experimental sections, an эxamination of the liabilitizes and assets of student editing, a statistical summary of means and standard deviations, and analyses of variance of the differences between methods.

## Comparison of Losses and Cains in the Control and Experimental Groups

A comparison of the two groups on the basis of the number of students who lost, gained, or made no chance in scores favors the control group in language knowledge, in mechanics, and in content if only the results Prom the last two sets of test scores are considered. On the other hand, comparing the results between the fourth and tenth weeks with those between the first and tenth weeks reveals some of the contradictory results about which Courtis warned. As is show in Table $X$, ten more experimental subjects than control subjects made lower scores in the tenth week than in the four th week on language knowledge. Ten fewer experimental subjects gained.

TABLE X
NUMBER OF STUD ENS MARI'G GAINS OR LOSS TS IN SCORe ${ }^{-1}$ S IN LANGUAGE KNO:ILTOCE FROM THE F JUT TO THE TENTH WEEK AS SION Y BY FORMS BM AND AM OF THE BAPPTIT-RYAN-SOHRARMEL ENGLISH TEST


1
See pages 61-62.

Examination of the change in scores from the first to the tenth weeks shows the two groups to be approximately equal in their achievement. During the entire ten weeks, there were fifty-seven gains in the control group as compared to fifty-six in the experimental group.

## TABLE XI

## NUMBER OF STUDENTS MAKING GAINS OR LOSSES IN SCORES IN LANGUAGE KNOWLEDGE FROM THE FIRST WEEK TO THE TENTH WEEK AS SHOWN BY FORMS CM AND AM OF THE BARRETT-RYAN-SCHRAMMEL ENGLISH TEST

|  | Control Group |  |  | Experimental Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Teacher | Gain | Loss | No Change | Gain | Loss | No Change |
| H-1 | 13 | 1 | 1 | 12 | 1 | 2 |
| G-2 | 12 | 3 | 0 | 12 | 3 | 0 |
| D-3 | 10 | 5 | 0 | 9 | 4 | 2 |
| A-4 | 9 | 6 | 0 | 13 | 2 | 0 |
| B-7 | 13 | 2 | 0 | 10 | 5 | 0 |
| Total | 57 | 17 | 1 | 56 | 15 | 4 |

The losses favor the experimental group by two, thus balancing the achievement of the two groups. Evidently the two groups declined in correct individual responses to tests of language knowledge during the six weeks of the student editing, and the decline was greatest for the experimental group. This pattern of decline during the last six weeks was present in the achievement of all the pairs of sections except $\mathrm{G}-2$. The $\mathrm{G}-2$ sections both increased in gains, but the advantage was to the control section. In sections $B-7$ the decline was less for the experimental section.

Like the scores in language knowledge, the individual scores on mechanics, as judged by the second part of the editing guide, also favor the control group, but so slightly as to be doubtful. (See Table XII.)

TABLE XII

NUMBER OF STUDENTS MAKING GAIMS OR LOSSES IN lEECHANICS FROM THE FOURTH TO THE TENTH WEEK AS JUDGED BY

PART TWO OF THE EDITING GUIDE

|  | Control Group |  |  | Experimental Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Teacher | Gain | Loss | No Change | Gain | Loss | No Change |
| H-1 | 9 | 6 | 0 | 10 | 3 | 2 |
| G-2 | 12 | 3 | 0 | 6 | 9 | 0 |
| D-3 | 9 | 6 | 0 | 9 | 5 | 1 |
| A-4 | 6 | 7 | 2 | 10 | 5 | 0 |
| B-7 | 11 | 4 | 0 | 10 | 5 | 0 |
| Total | 47 | 26 | 2 | 45 | 27 | 3 |

Experimental sections $H-1, D-3$, and $A-4$ show advantages over their corresponding control sections according to scores on themes four and ten. The same is true of sections $A-4$ on themes one and ten. One aspect of the mechanics scores differs from its correspondent in the language knowledge scores; that is, there were more gains during the last six weeks than in the entire ten weeks. This, of course, was the result of a decrease in scores on the fourth week themes. Although such a drop may have been caused by conditions of the testing or of the judging, it is possible that students made more errors because they were recording more complex thoughts than before.

TABIE XIII

NUMBER OF STUDENTS MAKING GAINS OR LOSSES IN MECHANICS FROM THE FIRST TO THE TENTH WEEKS AS JUDGED BY PART TWO OF THE EDITING GUIDE

| Teacher | Control Group |  |  | Experimental Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gain | Loss | No Change | Gain | Loss | No Change |
| H-1 | 9 | 6 | 0 | 8 | 6 | 1 |
| G-2 | 7 | 7 | 1 | 9 | 5 | 1 |
| D-3 | 8 | 5 | 2 | 4 | 8 | 3 |
| A-4 | 9 | 6 | 0 | 11 | 3 | 2 |
| B-7 | 9 | 6 | 0 | 9 | 5 | 1 |
| Total | 42 | 30 | 3 | 41 | 27 | 7 |

In content, as in language knowledge, the gains were fewer in the last six weeks than in the entire ten weels, but the decline could not be said to favor either group. Likewise the gains and losses in content scores during the six weeks of student editing were approximately equal for both the control and the experimental groups.

TABLE XIV
NUMBER OF STUDENTS MAKING GAINS OR LOSSES IM CONTENT SGORES FROM THE FOURTH TO THE TENTH WEEK AS JUDGED BY PART ONE OF THE EDITING GUIDE

| Teacher | Control Group |  |  | Experimental Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gain | Loss | No Change | Gain | Loss | No Change |
| H-1 | 10 | 4 | 1 | 11 | 3 | 1 |
| C-2 | 9 | 6 | 0 | 5 | 9 | 1 |
| D-3 | 11 | 2 | 2 | 9 | 6 | 0 |
| A-4 | 8 | 7 | 0 | 12 | 2 | 1 |
| B-7 | 8 | 5 | 2 | 8 | 6 | 1 |
| Total | 46 | 24 | 5 | 45 | 26 | 4 |

Within the pairs of sections, gains during the last six weeks favored the experimental group for sections $\mathrm{H}-1, \mathrm{~A}-4$, and favored the control group in sections G-2, D-3, and B-7. This pattern of comparison between groups was approximately the same in the last six weels as for the entire ten weeks; but within sections, the changes were too varied for generalization.

## TABLE XV

NUMBER OF STUDENTS MAKING GAINS OR LOSSES IN CCNTENT SCORES FROM THE FIRST TO THE TENTH WEEK AS J'DGED BY PART ONE OF THE EDITING GUIDE

| Teacher | Control Group |  |  | Experimental Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gain | Loss | No Change | Gain | Loss | No Change |
| H-1 | 8 | 4 | 3 | 9 | 5 | 1 |
| G-2 | 11 | 1 | 3 | 9 | 6 | 0 |
| D-3 | 11 | 4 | 0 | 11 | 4 | 0 |
| A-4 | 8 | 5 | 2 | 9 | 5 | 1 |
| B-7 | 14 | 1 | 0 | 13 | 2 | 0 |
| Total | 52 | 15 | 8 | 51 | 22 | 2 |

Summarizing from table $X$ through $X V$ shows that the gains and losses in score during the last six weeks favored the control group in language knowledge and in mechanics but made no appreciable difference in content. However, when these gains and losses are compared with those of the entire ten weeks, it is found that gains decreased in the last six weeks in a proportion still favoring the control group in language knowledge and making no difference in content; but more gains occurred in mechanics
during the last six weeks than in the ertire ten weeks. This condition existed because of a decrease in scores in the fourth week. Snch a decrease might make the gains during the last six weeks seem greater than they really were, or it micht be the result of an attempt to use more complex writing. At any rate, the students did react differently to the three criteria over the entire ten weeks and during the student editing period by individuals, by sections, and by groups. Therefore, it is necessary to keep the scores for the three criteria separate as was planned in the beginningy and to beep the peculiar variances in growth pattern in mind wher interpreting results.

Difficulties and Assets of Student Editing
According to observations made by teachers and by students, there were four types of difficulty resultant from student editing. The difficulties were matters of student morale, student error in editing, classroom confusion, and loss of time for the teacher to lecture and to learn students' writing problems.

Student morale offored four difficulties. First, students were hesitant to exercise their powers of criticism in writing on each other:s papers. They tended to score the themes hich on the editing guide, but made only a few general comments. In the sections of first semester English, students would five oral comment freely long before they would write anything on a paper. In contrast to this hesitancy to criticize another studentis writing but leadine to the same results in scoring was the failure of students in some sections to taice the editing seriously. To students with the latter attitude, there was a
chance to give someone a good score -. or a bad one. A third problem of student morale was the lag in effort wher students knew that the teacher would probably not re-edit the papers. A. fourth problem was the lack of confidence in the ability of classmates to give the writing the attention that it deserved。

The problem last named led to the second matter of difficulty, that of student error. Poorly prepared students left many mistakes undiscovered and marked many correct items as incorrect.

The third type of difficulty was classroom confusion. Some students and some teachers were disturbed by the simultaneous discussions, especially when laughter arose from some groups having found a ridiculous statement or from a criticis unusual comment. A visitor in one of the sections was much disturbed by the confusion and by the apparent waste of time.

Two disadvantages were associated with the allotting of class time for editing of papers. The first was the loss of lecture time. Very conscious of the student's inability to find all the errors, of the many weaknesses to be overcome in a short time, and of the responsibility to inform students about the right techniques, teachers regretted the loss of lecture time in which explanations would prepare students for what was expected of them in their writing. Giving one of the three weekly meetings to student editing left only one period per week for lecture except when themes were written outside of class. The relief of teachers from reading and mariong every theme brought with it a second disadvantage, namely, that the teacher knew less abcut individual writing problems because he read fewer papers and read less of ten.

The above described difficulties of student morale, student error, class confusion, and loss of lecture time were not unanticipated; neither was there a lack of efforts to combat them. Spot-checking by the teacher of themes and student criticisms, arduous work of the teacher as advisor and supervisor, encouragement and counsel about the responsibility of students to do the best editing possible, and the stimulation of counter-criticism among the students were some of the methods aimed at building desirable attitudes and at improving the students' skill in editing each other's themes.

The disadvantages were offset by advantages, however. One of the principal assets offered by the student editing method was the freedom of the teacher to make more individual contacts with the students. He could give more help with individual problems and see more clearly what students were doing. Another advantage was the relief of the teacher from having more themes to read than time would permit his reading. This relief also gave assurance to the student that his paper would be read soon after he had written it, and that he would therefore have more experience at writing. Still another asset of the student editing was that students were forced to come to concrete decisions on whether or not certain items were right or wrong.

The dichotomy of the above observations makes them inconclusive. One aspect points toward the superiority of part-time editing of themes by the students over the traditional editing by the teacher; the other bespeaks the weaknesses of the editing by students. All of the teachers except one expressed belief that the editing by students has advantageous possibilities. The teacher of sections $G-2$ evaluated the experience as follows:

Former attempts of my own at having students grade one another's papers have not to my mind been beneficial either to the students or to the teacher. Although students are quite adept at choosing the best theme and in poirting out defects in poor ones when themes are read aloud, they seem not to be successful at student grading of papers, for they are inclined either to be too generous or to mark insignificant errors.

Ideally, I suppose, the teacher would re-grade these student graded papers. But I have found the re-grading of these themes an almost unbearable chore, one that I feel I cannot undertake with the heavy load of freshman composition that freshman composition teachers carry. The themes, poor to begin with, are made pocrer by incompetent corrections, and I have never felt the value to the student to counterbalance the agony to the teacher.

Using what yardsticks I have (without benefit of absolute tests and accurate measurements) I reluctantly say that the experimental section did not improve under student grading. I make this judgment by improvement or otherwise as to letter grade, score on the organization of contents, and score on correctness of performance on two themes, numbers four and ten....

Some reasons for lack of improvement in the experimental section I attribute to the following attitudes and circumstances. Although I attempted to prepare the students for the grading, they did not take the experiment seriously for some time. Here was a chance to give everybody a good grade and so they did. More seriously I found that they hated to grade one another down, realizing their own weaknesses. Again I found that they "loafed." Knowing the teacher was not to grade his paper, the student did not put forth his best effort. (This attitude can be countered by having a fewer number of themes between check themes.) After the first excitement had died down, the grading became a chore. (Again this situation can be remedied by having a shorter testing period.) There was not enough time for instruction. Since one period must be spent each week in grading and several periods must be set aside for impromptu themes, there was not enough time for the planning of themes.

I felt that the greatest disadvantage was that the student did not have faith in the student grader; I was rather surprised at the expression of pleasure when the students found that I was to grade theme number ten.

I tried to prepare the students for the experiment by discussing with them each section on the scoring sheet, giving them examples from their own first themes, and pointing out examples from the handbook. I read sections of themes aloud, inviting questions and conments. I told them how I evaluated themes, scoring several sample themes for them. I feel that I did a good job of preparation; but I felt at a loss how to help them when once the student editing was under way. Any errors I spotted on my "rounds" I gave instruction about, but still I felt some lack. As I said at the beginning, I suppose the ideal way would be to re-crade the papers. While such a procedure might aid the student, it would certainly defeat any aim on the part of the experiment to aid the teacher with her teaching load. (Such an aim was the purpose of attempts last semester at student editing.)

Should I conduct a similar experiment again I would probably try a different method. We star ted the experiment during Religious Emphasis Week and the shortened period handicapped us. The groups which we had planned to have took up too much time, so I gave each student another student's paper to grade. And since we had started in that manner, the class preferred to continue so. Each student got a different student's paper each time and I tried to see that the distribution between good students and poor students was done fairly. Although there was no group participation, each student could and did consult his neighbor.

Ten minutes or so before the period was over I had the students return the papers to the writers so that they might look over them. If they were not satisfied they talked the errors over with the grader and often $I$ had to act as referee. I felt that this short challenge period was very valuable, for both the writer and the grader had to defend their positions.

I would say generally that student editing works well with the good student, and I suppose it serves as well for the poor student, but for the mediocre student who needs direction and discipline and who doesn't know what to do but will take instruction when it is given step by step student editing in my section at least did not prove too successful. ${ }^{1}$

For sections D-3, the effect of the experiment upon teacher and students was different except for one thing. There was agreement that five themes in a row were too many for students to edit profitably. The teacher of sections D-3 had the following to say about the experiment:
$\mathrm{I}_{\text {Kathleen Garrett, An Evaluation of }}$ a Student Theme Grading Experiment.

The problem I gave most careful attention to at the outset was safeguarding the integrity of student criticism. Two factors I considered important: the student's awareness that he was just as much subject to check as critic as he was in his own composition, and his feeling free to express his honest judgments without being subject to embarrassing personal considerations. The first I tried to take care of by telling them that their critical work would have a bearing on their semester grades. (I also pointed out the value they would get out of exercising their critical faculties on the efforts of their fellows.) The second I approached very carefully, first by trying to suggest the most wholesome attitude toward giving and receiving criticism, and second by saying that the identity of the critic would not be made known to the author. After two weeks of this arrangement I asked them whether they would prefer to continue the withholding of the identities or have the critic put his name directly on the paper, which would have the advantage (as one student pointed out) of enabling author and critic to discuss the judgments expressed. Some favored the change; many did not care which way it was done; but since a few wished to continue the withholding of identities, that was done.

One quite valuable feature of the student checking, it seemed to me, was the time I was able to devote during the slass hour to helping students individually with their questions. And it served for the time being to put us both on the same side of the desk, with the added novelty that this time they were being summoned to do a little work on the teacher's side. Many of them seemed to find it a pleasant experience.

One feature of the experiment seemed to be somewhat infortunate - the unbroken string of student-edited themes jetween themes four and ten. When I use a similar system In my regular classes next fall I expect to have about three themes in succession student-edited, then check one myself; and every other one that I shall check will be a test theme. ${ }^{l}$

Then casually interviewed by the experimenter, students gave the same variety of responses as did the teachers. Students of experimenta. section B-7 said that the student editing helped them to better understand what the teacher's marks on themes meant. They said also that the experience had helped them to find their own errors more readily. One student expressed the belief, however, that he had worked too hard and had spent too much time on his themes for them not to have been ${ }^{1}$ Loyd Douglas, Personal Comment and Evaluation of the Experiment.
given more attention by the teacher. None of these students knew that their work was involved in an investigative study. The following excerpts from paper written on An Evaluation of a Semester of Freshman English came from experimental section B-7. Fourteen students of the thirty in the class made specific mention of the student editing.

A veteran enrolled in the division of arts and sciences said, "I liked the way the teacher let us write a theme, then rewrite, correcting our errors after they had been pointed out in the study group." Records show that this student made slight gains in mechanics and in language knowledge but made his lowest content score on the last theme.

Another student of arts and sciences, who had not attended high school but who had entered college on the basis of the General Educational Development test, said, "The things I liked best about the course were the way we graded our themes in class and the help the teacher gave me." A student of dairy farming, whose home is in Rochester, Indiana, said:

My only dislike about the course was the system of grading. I always thought that the teacher should grade the papers. I think that it is all right for the students to grade each other's papers and then rewrite them, but I think that the teacher should grade them and hand them right back, because there are bound to be some mistakes that some of the students are sure to miss. Then the person who writes the paper wouldn't know it and would keep on making the same mistake.

The prospective dairy farmer's classmate majoring in conmerce agreed with him.

I liked the way this course was conducted in grading our own papers because it makes me feel that we are free and we will take an active part and be willing to learn rather than feel we are guided each step. I feel, however, that the teacher should have graded our papers afterwards and have
shown us our mistakes in class as a group. I think that the student is deserving of knowing how he stands after all we pay for our learning.

Ancther student of commerce, who wants to be a secretary, said, I thought it was silly to have students grade papers. If one could rite a theme he was doing good; and besides, we were learning. Now v ay attitude has changed. I learned by se日ing the mistakes of others." A vocational agriculture student who had been out of school and out of the service for several years said, "Putting us into groups of (
?our to grade each other's papers helped me to understand how others 1
sere progressing along with me." This student had many language diffisulties, but he took all the help he could get from everyone. c
A student whose ambition is to teach vocational agriculture in
1 small high school said, "One of the outstanding things was the help
: got from grading our themes in class. This makes one study harder ] ;o get a better paper."

Other criticisms volunteered by the students are the following:
I have enjoyed writing themes and have liked the unusual way we graded themes most of all. I get much more out of it by having somebody else frade my theme and having to correct it before I hand the theme in.

I liked grading each other's themes becalise it made me realize that they had many of the same problems that I nad. Also it made me think of ways to improve upon these errors.

I liked the way that themes were taken into corsideration and the way they were graded. I think it always helps us if we look for and find cur own mistakes. If a teacher marks errors on my paper, nine ont of ten times I won t stop to reason why, but just say, "Well, it's wrong so I won t use it again." If this attitude is taken, a person never will learn why a thing is wrong. So I think it is much better for one to find his own errors and correct them himself.

The thing I liked most about the course was correcting our own papers. I learned more that way than I did any other way. .....

I would have liked for my theme to have been given a grade ind returned, but I guess too much of an emphasis on grades is not good in such a course as this.
.....
Grading one's own themes and those of his classmates has । learning quality that theme writing would not otherwise lave. You learn to look for mistakes before you hand in your saper rather than after someone has marked your paper and sanded it back to you.

These reports by students are comparable to the evaluations made by the teachers of sections $G-2$ and $D-3$. They show an interest in the student editing; yet they reflect also the student's strong desire for the thorough attention of the teacher to each paper. In the light of a recommendation by one teacher that the method might be better for poorer students, it is unfortunate that written reports from all the classes are not available. None of the students whose criticism is reported above ranked higher than the twenty-seventh percentile on the American Council on Education Psychological Examination.

These observations of teachers and of students show a number of obstacles that must be overcome and a number of advantages that can be experienced when themes are edited by the students. The obstacles are the inability of students to find errors, or when they do find them, to discriminate between major and minor difficulties; the lack of faith in themselves and in each other in the matter of grading; and indifferent attitudes toward the importance of the editing; a lack of time for lecture and class discussion; and a certain amount of confusion in the classroom. Advantages are the development in the student of an awareness of right and wrong ways of writing and a greater skill in detecting errors;
more time for the teacher to observe and to assist individuals at their work; quicker reading of themes so that weaknesses are known to the student before he writes again; some relief to the teacher in reading and criticising great numbers of themes; the stimulation of thinking among the students as they defend their criticisms and their writing to each other. All the findings stated up to now concern the work of only a few students and teachers. They are subjective and incomplete, but they provide the reader some realistic illustration of what the following statistical reports say.

## Summaries of Means and Standard Deviations

To provide a more objective comparison by which to study the trends of improvement and by which to seek further for evidence rejecting or supporting the student editing method as a cause of improvement in freshman composition, the following tables have been made of group and section averages and group standard deviations. The section averages are arithmetical; the group averages are derived means. Still no attempt has been made to combine the three sets of scores. Language knowledge, mechanics, and organization of content are still kept separate.

Table XVI, as did the tables of gains and losses, shows evidence to favor the control group in the amount of gain during the six weeks of student editing. It must be remembered, however, that neither these means nor the previously reported individual cains and losses have been corrected for individual or group differences in initial ability, for chance errors of measurement, or for teacher differences which may be present.

SUMMARY OF MEANS AND STANDARD DEVIATIONS OF THE RAN SCORES MADE IN THE FIRST, FOURTH, AND TENTH WEEKS ON FORMS CM, AM, ARD BM RESPECTIVELY OF THE

BARRETT-RYAN-SCHRAMEL ENGLISH TEST

| Sections | Control Group |  |  | Experimental Group |  |  | N |
| :---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: |
|  | Cm |  | Am | Bm | Cm | Am | Bm |
| H-1 | 89.86 | 95.20 | 102.40 | 93.40 | 104.40 | 105.20 | 15 |
| G-2 | 104.47 | 102.87 | 109.33 | 88.73 | 93.20 | 100.53 | 15 |
| D-3 | 97.27 | 99.27 | 102.40 | 87.60 | 99.33 | 97.40 | 15 |
| A-4 | 83.53 | 88.47 | 90.60 | 80.40 | 95.40 | 93.07 | 15 |
| B-7 | 77.40 | 86.47 | 89.60 | 78.13 | 79.33 | 81.40 | 15 |
| Group Mean | 90.50 | 94.50 | 98.90 | 83.30 | 94.10 | 95.90 |  |
| SD | 23.50 | 21.29 | 19.69 | 20.89 | 18.93 | 18.35 |  |
| N | 75 | 75 | 75 | 75 | 75 | 75 |  |

Change in group means was in an upward direction with standard deviation becoming smaller in both the control and the experimental group. Three of the ten sections did not follow the pattern of upward change. Experimental section D-3 averaged 87.60 on Form Cm and 99.33 on Form Am, then dropped to 97.40 on Form Bm. Experimental section A-4 had averages rising from 80.40 to 95.40 and then dropping to 93.07. Control section G-2 dropped from 104.47 to 102.87 and then rose to 109.33. As in the examination of gains and losses, these means and standard deviations seem to indicate a faster growth for the control group. However, such a conclusion is not necessarily valid in the light of the inequality of the two groups in initial ability.

Table XVII shows a possible but unreliable advantage to the student editing group in the amount of improvement made in correct performance. or mechanics, but it also shows that the direction of change was very irregular for the sections in both groups.

## TABLE XVII

SUMMARY OF MEANS AND STANDARD DEVIATIONS OF THE RAN SCORES MADE ON MECHANICS IN THE FIRST, FOURTH, AND TENTH TEEKS AS JUDGED BY PART TWO OF THE EDITING GUIDE

| Sections | Control Group |  |  |  | Experimental Group |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | I | I | IV | X | I | IV | X |
| H-1 | 72.87 | 67.67 | 73.40 | 76.33 | 70.33 | 82.00 | 15 |
| G-2 | 83.33 | 74.33 | 80.73 | 73.60 | 73.93 | 78.47 | 15 |
| D-3 | 76.87 | 72.07 | 72.40 | 83.73 | 68.53 | 75.80 | 15 |
| A-4 | 67.13 | 75.33 | 71.87 | 71.20 | 74.60 | 80.80 | 15 |
| B-7 | 41.07 | 34.20 | 52.53 | 43.87 | 47.40 | 52.47 | 15 |
| Group Mean | 68.40 | 65.00 | 69.17 | 70.07 | 67.20 | 73.47 |  |
| SD | 22.15 | 22.36 | 22.80 | 21.20 | 21.70 | 16.65 |  |
| N | 75 | 75 | 75 | 75 | 75 | 75 |  |

There was a drop in mean score of both the control and the experimental groups in the fourth week, but the rise in the last six weeks raised the mean higher than that of the first week. However, this decrease in scores after four weeks may not mean that students did not decrease in skill, but that they began to use new and strange words, to attempt the expression of more complex ideas, and to become frustrated over some of the techniques of writing. The fact that in the
end they made higher scores than exer seems to bear out this assumption. The decrease was about the same for both Eroups.

Means of content scores followed an upward direction for themes one, four, and ten for the total groups and for all sections except control H-l and experimental A-4. In both of these sections, however, the drop in average was overcome on the final test with an average surpassing that of the initial test.

## TABLE XVIII

SUTMARY OF MEANS AND ETAMDAND DEVIATIONS OF THE RAN SCORES ON CONTENT MADE IN THE FIRST, FOTETH, AND TEUTH UEEKS AS JUDGED BY PART ON OF THE RDITING GUIDE

| Sections | Control Group |  |  | Experimental Group |  |  | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | I | IV | X | I | IV | X |  |
| H-I | 22.67 | 21.33 | $21+033$ | 23.33 | 25.47 | 28.40 | 15 |
| G-2 | 17.53 | 19.13 | 20.47 | 17.47 | 20.4.? | 19.60 | 15 |
| D-3 | 20.73 | 21.00 | 25.93 | 19.87 | 21.73 | 23.27 | 15 |
| A-4 | 17.67 | 1.8. 53 | 29.13 | 26.67 | 14.33 | 19.27 | 15 |
| B-7 | 10.40 | 15.07 | 16.50 | 8.73 | 15.73 | 16.80 | 15 |
| Group Mean | 17.72 | 19.24 | 21.32 | 17.16 | 19.48 | 21.48 |  |
| SD | 7.26 | 6.72 | 7.98 | 8.19 | 10.41 | 7.11 |  |
| N | 75 | 75 | 75 | 75 | 75 | 75 |  |

Table XVIII shows opposite trends in standard deviation for the control and experimental groups. For the control group, the standard deviation of scores in the first week was 7.26 . The scores in the fourt had a standard deviation of only 6.72 ; then in the tenth week, there was
a standard deviation of 7.98 , whici was frefer than the one of the first week. Just the opposite hap?ened to the experimental group when the standard deviations were $8.19,10.41$, and 7.11 in the first, fourth, and tenth weeks respectively.

The same uncertainty of change existed in language knowledge, in mechanics, and in orgenization of content. Therefore, no effort was attempted to combine the results of the three sets of scores. Such a combination would probably be influenced by the factors of relationship among the three facets: language knowledge, mechanics, and content. The uncorrected data show that the control group made more gain in languege knowledge, that the experimental group made more gain in correctness of performance, and that there was no difference between the two groups in improvement of ability to organize material to substantiate an idea.

No one of the three analyses thus far employed was adequate to reject or to retain the hypothesis that stuaent editing causes more improvement in writing than does teacher editing of themes. First, the summaries of individual gains and losees showed that in language knowledge and in mechenics more students of the control group made gains during the period of student oditing than did students of the experimental groups but when the gains and losses of that alx wetes were compared with those of the entire ten weeks, the patterns of change were too varied to be conclisivo. second, tho advantages and disadvantages observed by teachers and students showed favor to neither group. Third, the summaries of group means and standard deviations showed the same diversity of patiern as did the gains and losees.

Because of the probability that the above desoribed individual and group differences would occur, it was planned in the beginning to test the hypothesis by means of analysis of covariance.

Analysis of covariance represents ar extension of analysis of variance to allow for the correlation hetween initial and final scores. Covariance is especially useful to experimental psychologists when for various reasons it is impossille to or quite difficult to eqiate control and experimental groups at the start。... Tlwough covariance one is able tc effect judga ments in final or terminal scores which will allow for differ. ence in some initial variable. ${ }^{1}$

Lindquist has poznted out the danger of errors die to such extraneous factors as teacher differences, meeting time, and disturbing elements within each class.

In this study, significant individual differences were evident from the scores on the mental ability test; from the individual gains and losses on the tests of language lnowledge, mechanics, and organization of content; and from the variety of change in central tendency of scores as observed from the atandard deviations. In spite of the care exercised to conduct $a l l$ the diasses alike, there was also the possibility that teacher differences would influence the results of statistical procedure。 Therefore the following analyses make provision for isolating those teacher differences; if any, from the results.

## Analyses of Variance

## Language Knowledge

An analysis of variance was performed for the purpose of determining whether or not there were true differerces between the methods when variability due to external factors was accounted for. Table XIX shows
${ }^{I_{\text {Lindquist, }} F, F, \text { Design and Analysis of Experiment in Psychology }}$ and Education (New York, 1953): po 32..
the sums of the raw scores made on language knowledge which were used in the analysis of the data obtained at the end of the fourth week.

TABLE XIX

SUMS OF THE RAW SCORES IN LANGUAGE KNO:IEDGE MADE
IN THE FOURTH WEEK ON FORM AM OF THE BARRETT-RYAN-SCHRAMMEL ENGLISH TEST

| Method | Teachers |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{H}-1$ | $\mathrm{G}-2$ | $\mathrm{D}-3$ | $\mathrm{~A}-4$ | $\mathrm{~B}-7$ |
| Control | 1428 | 1543 | 1489 | 1327 | 1297 |
| Experimental | 1566 | 1398 | 1490 | 1431 | 1190 |

It has already been shown that there are group differences n language knowledge. The sums of scores if Table XIX confirm the inding of those differences. The analysis recorded in Table. XX feparates the treatment combination variance into teacher veriance shd methods variance so that the mathods variance is isolated. a)

ANALYSIS OF VARIANCE OF THE RAN SCORES IN LANGUAGE KNOWLEDGE MADE IN THE FOURTH UEEK ON FORM AM OF THE BARRETT-RYAN-SCHRAMMEL ENGLISH TEST

| Sources | df | SS | MS | F | $P$ |
| :--- | :---: | ---: | ---: | :---: | :---: |
| Total | 149 | $57,871.79$ |  |  |  |
| Treatment Combination | 9 | $8,218.99$ |  |  |  |
| Teachers | 4 | $6,174.49$ | 1543.62 | 4.35 | $<.01$ |
| Methods | 1 | .54 | .54 | 0.002 | $>.05$ |
| Interaction | 4 | $2,043.96$ | 510.99 | 1.44 | $>.05$ |
| Error | 140 | $49,652.80$ | 354.66 |  |  |

Group differences having been found, those differences were furthe treated to see whether they were due to teacher or to methods variance. The F of 4.35 is significant at the one per cent level of confidence, showing that the teachers and other extraneous factors of the classroon were responsible for the differences among the means. The $F$ of . 002 for methods is very non-significant. Therefore it can be said that nor of the difference among the means was due to method.

The same kind of treatment was given to the made in language knowledge at the tenth week. Table XXI shows the sums of scores and Table XXII, the analysis of variance.

TABLE XXI
SUMS OF RAW SCORES In LANGUAGE KNOWLEDGE MADE
IN THE TENTH WEEK ON FORM BM OF THE
BAPRETT-RYAN-SCHRAMEL ENGLISH TEST

| Method | Teachers |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | H-1 | G-2 | D-3 | A-4 | B-7 |
| Control | 1536 | 1640 | 1536 | 1359 | 1344 |
| Experimental | 1578 | 1508 | 1461 | 1396 | 1221 |

TABLE XXII
ANALYSIS OF VARIANGE OF RAW SCORES IN LANGUGE MADE
IN THE TENTH WEEK ON FORM BM OF THE BARRETT-RYAN-SCHRAMMEL ENGLISH TEST

| Sources | df | SS | MS | $F$ | $P$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Total | I/9 | $52,058.39$ |  |  |  |
| Treatment Combination | 9 | $9,643.39$ |  |  |  |
| Teachers | 4 | $4,890.35$ | $1,222.59$ | 4.04 | $<.01$ |
| Methods | 1 | 420.00 | 420.00 | 1.39 | $>.05$ |
| Interaction | 4 | $4,333.39$ | $1,083.35$ | 3.57 | 7.01 |
| Error | 140 | $42,415.00$ | 302.96 |  |  |

The significant $F$ of 4.04 and the non-significant $F$ of 1.39 show that the difference is due to teacher variance and not to methods. Therefore, it cannot be said that the experimental group made more improvement in language knowledge than the control group during the period of student editing.

## Mechanics

An analysis of the two tests in mechanics revealed the same kinds of results that were found in language knowledge. Tables XXIII and XXI show the sums of scores and the analysis of the fourth week.

TABLE XXIII
SUMS OF RAW SCORES IN MECHANICS MADE IN THE FOURTH WEEK AS JUDGED BY PART TWO OF THE EDITING GUIDE

| Methods | Teachers |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | H-1 | G-2 | D-3 | A-4 | B-7 |
| Control | 1015 | 1115 | 1081 | 1130 | 513 |
| Experimental | 1055 | 1109 | 1028 | 1119 | 711 |

## TABLE XXIV

> ANALYSIS OF VARIANCE OF RAN SCORES IN MECHANICS MADE IN THE FOURTH WEEK AS JUDGED BY PART TWO OF THE EDITING GUIDE

| Sources | df | SS | MS | F | $P$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Total | 149 | $72,093.16$ |  |  |  |
| Treatment Combination | 9 | $25,727.63$ |  |  |  |
| $\quad$ Teachers | 4 | $24,268.63$ | $6,067.16$ | 18.32 | $<.01$ |
| Methods | 1 | 188.16 | 188.16 | .57 | 7.05 |
| $\quad$ Interaction | 4 | $1,270.84$ | 317.7 | .96 | 7.05 |
| Error | 140 | $46,365.53$ | 331.18 |  |  |

Tables XXV and XVI show the and ai socres an meonanics and the analysis for the tench weel.

TABCE OVV



| Methods | Teachers |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{H}-1$ | C, 2 | D.3 | $\square$ | B-7 |
| Control | 1101 | 1211 | 1086 | 1078 | 788 |
| Experimental | 1230 | 1177 | 1137 | 1212 | 787 |

TARLE XXVI
ANALYSIS OF VARIAMCE OF RAN SCORES MADE IN MECHATICS
IN THE TTMTH :IFEK AS JUDGED BY
PART T:O MF THE RDITI:G GOIDE

| Sources | df | SS | MS | F | $\overline{\mathrm{P}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 349 | 101,087.67 |  |  |  |
| Treatment Combranaict | 9 | 16,070.90 |  |  |  |
| Teachers | 4 | $14,910,30$ | 3,702.58 | 6.10 | $\therefore .01$ |
| Methods | 1 | 518.54 | 518.54 | . 85 | $\because .05$ |
| Interaction | 4 | 759.66 | 109.92 | . 31 | $\therefore .05$ |
| Error | 140 | 84.999 .87 | 607.13 |  |  |

In the tenth weel there were still significant differences betweet the means due to teacher variance, mit nome due to methodis. The hypothesis that student editire causes more improvomort in meohamics can be rejected thereby maline aciditional aralysie by oovariance unnecessary.

## Organization of Content

Of the three analyses of variance, the one on organization of content was the only one to agree wholly with the examinations given earlie: in this chapter of gains and losses and of means and standard deviations concerning the relation of improvement in the control and experimental groups. Tables XXVII and XXVIII contain the sums of scores and the analysis for the fourth week.

## TABLE XXVII

SUMS OF RAW SCORES IN CONTENT MADE IN THE FOURTH WEEK AS JUDGED BY PART CNE OF THE EDITING GUIDE

| Methods | Teachers |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Control | H-1 | G-2 | D-3 | A-4 | B-7 |
|  | 320 | 287 | 315 | 278 | 226 |
|  | 382 | 307 | 326 | 215 | 236 |

## TABLE XXVIII

ANALYSIS OF VARIANCE OF RAN SCORES IN CONTENT MADE IN THE FOURTH WEEK AS JUDGED BY PART ONE OF THE EDITING GUIDE

| Sources | df | SS | MS | F | P |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Total | 149 | $8,050.25$ |  |  |  |
| Treatment Combination | 9 | $1,623.40$ |  |  |  |
| $\quad$ Teachers | 4 | $1,374.14$ | 343.56 | 7.48 | $<.01$ |
| $\quad$ Methods | 1 | 10.67 | 10.67 | .23 | 7.05 |
| $\quad$ Interaction | 4 | 238.59 | 59.65 | 1.30 | 7.05 |
| Error | 140 | $6,426.84$ | 45.90 |  |  |

 F test applied to contont scores reveuled siennîícant differences de
tween group means but showed also that they were due to teachers rather than to method.

Tables $X X I X$ and $X X X$ contain the sums of scores and the analysis for the tenth week.

## TABLE XXIX

## SUNS OF RAD SCORES IN CONTENT MADE IN THE TENTH :EEK AS UUDGED BY PART ONE OF THE EDITIVG GUIDE

| Methods |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{H}-1$ | $\mathrm{G}-2$ | $\mathrm{D}-3$ | $\mathrm{~A}-4$ | $\mathrm{~B}-7$ |
| Control | 365 | 307 | 389 | 287 | 249 |
| Experimental | 426 | 294 | 349 | 289 | 252 |

TABLE XXX

## ANALYSIS OF VARIANCE OF RAW SCORES IN COTTENT MADE

IN THE TENTH WEEK AS JUDGFD BY PheT OIE
OF THE EDITING GUIDE

| Sources | df | SS | MS | $F$ | $P$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Total | 149 | $8,863.34$ |  |  |  |
| Treatment Combination | 9 | $2,094.60$ |  |  |  |
| Teachers | 4 | $1,911.11$ | 427.52 | 8.84 | 6.01 |
| Methods | 1 | 1.13 | 1.13 | .02 | $>.05$ |
| Interaction | 4 | 182.36 | 45.59 | .94 | 7.05 |
| Error | 140 | $6,768.74$ | 48.35 |  |  |

As the tables show, the differences among the means of the content scores were not due to methods. Since there were no significant differences due to method at the fourth week or at the tenth week, then the hypothesis that student editing causes more improvement than teacher editing can be rejected without the preplanned analysis of covariance.

## Summary of Analyses of Data

An empirical examination of individual gains and losses showed a slight advantage to the control group in language knowledge and in mechanics, but showed also a varying pattern of change which cast doubt upon the influence of student editing in making the advantage. In content scores, the examination of gains and losses showed no difference between the two groups.

Unadjusted means and the standard deviations of the groups favored the control group in language knowledge and the experimental group in mechanics, but showed no difference in content. Here again the small numbers of subjects, the varying pattern of change, and the imbalance of initial abilities made the results invalid.

Observations of teachers and students contained about the same number of advantages as disadvantages of the method of having themes edited by students, with no facts that would necessarily reject or retain the hypothesis.

When method and teacher influences were separated, there was found no difference between the two groups as to method of editing. Because there was no difference due to method, the analysis of covarlance to adjust for individual differences wes not made.

The hypothesis stated at the beginning of this study was as follows: The difference between the improvement made by students of freshman composition who edit each others' themes cooperatively and the improvement mady by students whose themes are edited by only the teacher tend to favor the student editing. Findings of the study were that in an experiment involving five sections who edited five of their own themes and five other sections whose themes were edited by the teacher alone, there was no significant difference in the effect of the two methods on language knowledge, on correctness of performance, or on ability to choose a topic and develop it by effective use and organization of relevant materials. For the subjects involved in the study and presumably for students of Oklahoma Agricultural and Mechanical College the hypothesis must be rejected. However, the study must be considered inconclusive for populations other than these.

Recommendations
Empirical evidence indicates that student editing may have value as a teaching method under one or more of the following conditions:

1. If the student-edited themes are re-edited by the teacher and grades are awarded to the editor as well as to the author,
2. If more skill can be developed in directing and motivating group work,
3. If great care is nomeciser to il aifmradrritire interrity of the student editorsy"
4. If fewer themes are edited in succession by the studerts,
5. If students have before them specific criteria by winich to edit the themes,
6. If students do not become involved in the awardire of erades to the themes, and
7. If each student feels that he has received jue attention and counsel from the teacher.

There is little nvidence that, under these conditions, effective of the student editing method will lessen any teacher:s hours of $k$, but it does seem that the method will shift the emphasis from teacher as a clerk who marks errors on a theme and posts the result a book to the teacher as a guide who points the way to better writir more critical thinking, and to more cooperative attitudes for the dents. It is in the light of these possibilities that the followink ommendations are offered:

1. More experimenting should be done in the matter of student group editing, using longer periods of time, more students and teachers, and a more discriminating design of experimentation.
2. Preparation for such an experiment should include not only the study of criteria and instruments for judging the themes, but also the study of effective group dynamics.
3. More study and testing should be given to the editing guide to try it as a probable criterion measure for expository writing。
nder, Garter and A. J. Burlse. How to Locate Educational Informat and Data. New York: Teachers Cclle, Columbia University, 1930.
$k$, J. C. Fesearch and Thesis Maring. Boston: Houghton Mifflin Company, 1930.
y, W. K. "The Importance of Gomrunication for Advancemert in Industry, " Colleqe Composition and Communication, Bulletin of Conference of College Composition and Communication, IV (No. 1, February, 1953), 11-13.
nger, Harvey Leigh. The Validation of the Iowa Elementary Langue Tests (Studies in Education, VI, No. 1). Iowa City: Iowa Univers 1930.
rd, W. S. "Essay-writing in French in the Sixth Form," Journal c Education (London), LXXXIII (February, 1951), 70-72.
tt, E. R., Teresa M. Ryan, and H. E. Schrammel. Barrett-RyanSchrammel English Test: Manual of Direction. Yonkers-cn-Hudson, New York: World Book Company, 1938.

Kenneth L. Censtruction of Educational and Personnel Tests. Ne York: McGraw-Hill Book Company, Inc., 1953.
E. C. A Study of the Conference and Nonconference Methods of Teaching Freshman Mritten Composition in a State Teachers College (Contributions to Education, No. 49). Nashville: Teachers Colle Columbia University, 1928.

Warren. "Conception and Technique," College English, XI (March, 1950), 308-317.
er, Benjamin. Effect of Immediate and Delayed Praise and Blame $\mathfrak{y}$ Learning and Recall (Contributions to Education, No. 620). New York: Teachers College, Columbia University, 1934.
s, Harold E. "Applications of the Principles of Group Dynamics i the College Classroom," College English, XII (November, 1950), 84-90.
, Leonard and Porter $G$. Perrin. A quarto of Modern Literature. New York: Charles Scribner's Sons, 1950.
s, Robert and Paul C. Polmantier. "A Follow-up of Achievement in Freshman English," The University of Missouri Bulletin, LII (December 20, 1951).

Campbell, Oscar James. The Teaching of College English. New York: D. Appleton-Century Company, 1934.

Cole, Luella. The Background for College Teaching. New York: Farrar and Rinehart, Inc., 1940.

Commission on English. Examining the Examination in English. Cambridge, Massachusetts: Harvard University Press, 1931.

Committee on Composition. A Proposal for the Teaching of English 113. (Dittoed report to the English faculty of Oklahoma Agricultural and Mechanical College, 1954).

Committee on Educational Research of the University of Minnesota. The Effective General College Curriculum as Revealed by Examination. Minneapolis: University of Minnesota Press, 1937.

Courtis, S. A. "Criteria for Determining Equality of Groups," School and Society, XXXV (June 25, 1932), 875-877.

Coward, A. F. "Comparison of Two Methods of Grading English Compositicn," Journal of Educational Research, XLVI (October, 1952), 81-93.

Cross, E. A. and Elizabeth Carney. Teaching English in High Schools. New York: The MacMillian Company, 1950.

Davis, Frederick B. Item-analysis Data: Their Computation, Interpretation, and Use in Test Construction (Bulletin). Cambridge, Massachusetts: Harvard University, 1946.

Davis, Ruth. "A Defense of Freshmen," College English, XII (May, 1951), 440-448.

Department of Superintendence of the National Education Association. Third Yearbook. Washington, D.C.: National Education Association, 1926.

Diederick, Paul B. "The Measurement of Skill in Writing," School Review, LIV (December, 1946), 584, 592.

Eason, Joshua Lawrence. A Diagnostic Study of Technical Incorrectness in the Writing of Gräduates of Tennessee County High Schools (Contributions to Education, No. 64). Nashville: George Peabody College for Teachers, 1929.

Ebbitt, Wilma R. and Paul B. Diederick. "Validity of an Examination in Writing, " College English, XI (February, 1950).

Educational Testing Service. Annual Report to the Board of Trustees. Princeton, New Jersey: Educational Testing Service, 1954.

Edwards, Allen L. Experimental Design In Psychological Research. New York: Rinehart and Company, Inc., 1950.

Evans, H. K. "The Ubiquitous Problem of Objectives in Youth Education," Teachers' College Record, LII (May, 1951), 481-489.

Farrar, Johr. "The Condition of American Writing," College English, XI (October, 1949), 1-7.

Fellows, John Ernest. The Influence of Theme-reading and Theme-correction on Eliminating Technical Errors in the Written Composition of Ninth Grade Pupils (Studies in Education, VII, No. I). Iowa City: University of Iowa, 1932.

Fels, William C. "The College Board English Composition Test - Present and Future," Education, LXXI (September, 1950), 4-10.

Fowler, M. M. "An Application of the Ferguson Method of Computing Item Conformity and Person Conformity," Journal of Experimental Education, XXIX, (March, 1954), 237-245.

Fowlkes, John Guy. Higher Education for American Society. Madison: University of disconsin Press, 1949.

Friedman, Bertha B. Foundations of the Measurement of Values (Contributions to Education, No. 914). New York: Teachers College, Columbia University, 1946.

Garrett, Henry E. Statistics in Psychology and Education. New York: Logmans, Green and Company, 1953.

Glaser, Edward M. An Experiment in the Development of Gritical Thinking (Contributions to Education, No. $9 / 4 \overline{3}$ ). New York: Teachers College, Columbia University, 1941.

Good, Carter V., A. S. Barr, and D. E. Scates. The Methodology of Educational Research. New York: Appleton-Century-Crofts, Inc., 1941.
------. Dictionary of Education. New York: McGraw-Hill Book Company, Inc., 1945.

Gorrell, R. M. and Laird Charlton. Modern English Handbook. New York: Prentice-Hall, Inc., 1953.

Gray, William S. Reading in Relation to Experience and Language (Proceedings of the Conference on Reading held at the University of Chicago). Chicago: The University of Chicago, 1944.

Greene, Harry Andrew. A Criterion for the Course in the Mechanics of Written Composition (Studies in Education, VIII, No. 4), Iowa City: University of Iowe, 1933.
------- "English - Language, Grammar, and Composition," Encyclopedia of Educational Research. Walter Monroe, Ed. New York: MacMillian

Greene, Harry A., Albert N. Jorgensen, and J. R. Gerberich. Measurement and Evaluation in the Secondary School. New York: Longmans, Greene and Company, 1954.

Griffin, William J. and T. C. Venable. "An Examination of Examinations," Educational Forum, XVI (November, 1952), 211-218.

Guerber, John C. "Testing and Evaluation in the Skills of Communication," College English, IX (April, 1948), 375-384.

Gunn, Mary Agnella. A Technique for Improving Basic Skills in English in High School (Studies in Education, VIII, No. 7). Iowa City: University of Iowa, 1934.

Hall, Robert A., Jr. "Descriptive Linguistics and the Teaching of English," Education, LXXIII (February, 1953), 360-367.

Haugh, O. M. "Representative Research in the Communication Skills," Education, EXXII (March, 1952), 470-479.

Hays, Edna. College Entrance Requirements in English: Their Effects on the High Schools (Contributions to Education, No. 675). New York: Teachers College, Columbia University, 1936.

Hill, Archibald A. "Correctness and Style in English Composition," College English, XII (February, 1951), 280-285.

Hillegas, M. B. "Scale for the Measurement of Quality in English Composition by Young People," Teachers College Record, XIII (1912), 331-394.

Hinton, Eugene Mark. An Analytical Study of the Zualities of Style and Rhetoric Found in English Compositicns (Contributions to Education, No. 806). New York: Teachers Colle e, Columbia University, 1940.

Hosic, J. F. Reorganization of Enrlish in Secondary Schools. (Report of the Committee of Thirty). Washington, D.C.: U.S. Dffice of Education, Bulletin No. 2, 1918.

Hudelson, Earl. "English Composition: Its Aims, Methods, and Measurement," The Twenty-second Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Company, 1923.
------. "The Effect of Objective Standards upon Composition Teachers' Judgment," Journal of Educational Research, XII (December, 1925), 329-340.

Auddeston, Edith M. "Measurement of Writing Ability at the College Entrance Level: Objective Vs. Subjective Testing Techniques," Journal of Experimental Education, XXII (March, 1954), 165-213.

Hwang, Pu. Errors and Improvement in Rating English Composition by Means of a Composition Scale (Ccntributicns to Education, No. 417). New York: Teachers College, Columbia University, 1930.

Jencke, Grace Elizabeth. A Study of Précis Writing as a Composition Technique (Contributions to Education, No. 644). New York: Teachers College, Columbia University, 1935.

Jewett, Ida A. English in State Teachers Golleges (Contributions to Education, No. 286). New York: Teachers College, Columbia University, 1927.
-------. "Samples from a Composition Reader's Script," Teachers College Record, XXXIX (October, 1937), 12-24.

Johnson, Burges and Helene Hartley. An Outline of an Inquiry now Being Made at Syracuse University into the Methods, Purposes and Effectiveness of the Training of College Freshmen in Written Composition. Syracuse, New York: University Press of Syracuse University, 1933.

Johnson, Franklin W. "The Hillegas-Thorndike Scale for Measurement of Quality in English Composition by Young People," The School Review, XXI (January, 1913), 39-49.

Johnson, B. Lamar. General Education in Action. Washington, D.C.: American Council on Education, 1952.

Jones, Edward S. "Why Students Fail in College," Association of American Colleges Bulletin, XXXIX (May, 1953), 282-288.

Jones, Howard Mumford. "The Creative Intelligence - The World of Ideas," Harvard Educational Review, XXII (Summer, 1952), 203-217.

Jordan, A. M. Measurement in Education. New York: McGraw-Hill Book Company, Inc., 1953.

Kerr, Elizabeth M. "The Research Paper as a Class Enterprise," College English, XIII (January, 1952), 204-215.

Keys, Noel. The Improvement of Measurement through Cumulative Testing (Contributions to Education, No. 321). New York: Teachers College, Columbia Uni versity, 1928.

Kuder, G. F. and M. W. Richardson, "The Theory of the Estimation of Test Reliability," Psychometrika, II (September, 1937), 151-160.

Lawson, Strang. "The Colgate Plan for Improving Student Writing," $\frac{\text { Association }}{288 \text { Af American Colleges Bulletin, XXXIX (May, 1953), }}$ 288-290.

Leverett, Ernestine. A Program in Language Arts for Teaching Those Students Who Make Low Grades on College English Entrance Tests. (Unpublished dissertation at Oklahoma Agricultural and Mechanical College, 1952).

Lindquist, E. F. Design and Analysis of Experiments in Psychology and Education. New York: Houghton Mifflin Company, 1953.
--m---, et al. Educational Measurement. Washington, D. C.: American Council on Education, 1931.

Lombardi, Maryellen Maher. The Inter-trait Rating Technique (Contributions to Education, No. 760). New York: Teachers College, Columbia University, 1938.

Lowrey, Rosewell Graves. The Erglish Sentence in Literature and in College Freshman Composition (Contributions to Education, No. 50). Nashville: George Peabody College for Teachers, 1928.

Lyman, R. L. Summary of Investigations Relating to Gramar, Language, and Composition (Supplementary Educational Monographs, No. 36). Chicago: University of Chicago, 1929.

McBrown, Maude. The Course of Study in Written Composition for the Elementary Grades (University of Iowa Monographs in Education). Iowa City, Iowa: College of Education, University of Iowa, 1931.

McCall, W. A. Measurement. New York: The MacMillian Company, 1939.
McCloskey, Frank M. and Lillian Merlands Hornstein. "Subfreshman Composition - A New Solution," College English, XI (March, 1950), 331-339.

McCullough, Constance M. and John C. Flanagan. "The Validity of the Machine-scorable Cooperative English Test, "Journal of Experimental Education, VII (March, 1939), 229-234.

McGraith, E. J. Communication in General Education. Dubuque, Iowa: William C. Brown Company, 1949.

MacLean, Angus S. and Arthur T. Tait. "Procedure for Analyzing a Test and Maximizing Its Reliability," Journal of Experimental Education, XXII (March, 1954), 273-278.

McNemar, Quinn. Psychological Statistics. New York: John Wiley and Sons, Inc., 1949.

Manley, C. Benton. "How Should the Secondary School Evaluate and Record Student Progress?" National Association of Secondary School Principals, XXXVI (March, 1952), 130-135.

Mason, James Hocker. "Motivation in Liberal Arts and/or Communication Courses," College Composition and Communication, III (February, 1952), 7-10.

Meadows, Leon Renfree. A Study of the Teaching of English Composition In Teachers Colleges in the United States (Contributions to Education, No. 311). New York: Teachers College, Columbia University; 1928.

Michaels, N. J., and M. R. Barnes. Measuring Educational Achievement. New York: McGraw-Hill Book Company, Inc., 1950.

Mielenz, Mary L. (Ed.) Developing Writing Skills in Secondary Schools (Contributions to Education, No. XXIX). Lincoln: University of Nebraska Teachers College, 1952.

Mills, Barriss. "Writing as a Process," College English, IV (October, 1953), pp. 19-26.

Mirrieless, Lucia B. Teaching Composition and Literature. New York: Karcourt, Brace and Company, 1937.

Moore, Robert N. "The Writing Clinic and the Writing Laboratory," College English, XI (April, 1950), 388-393.

Mosier, Charles I. "A Note on Item Analysis and the Criterion of Internal Consistency," Psychometrika, I (December, 1936), 275-282.

Mursell, J. L. Developmental Teaching. New York: McGraw-Hill Book Company, 1949.

National Council of Teachers of English. Constitution.
-------. Language Arts for Today's Children. New York: Appleton-Century-Crofts, Inc., 1954.
-------. The English Language Arts. New York: Appleton-Century-Crofts, Inc., 1952.

National Society for the Study of Education. The Twenty-second Yearbook, Part I: English Composition. Chicago: Chicago University, 1923.

Noyes, Edward S. "Recent Trends in the Comprehensive Examination in English," The Educational Record. XXI (January, 1940), 107-119.

Osenburg, F. C. "'Tests' of 'English Fundamentals'," College English, XI (February, 1950), 277-281.

Perrin, Porter G. "Sample Trends in the College Teaching of English," College English, X (February, 1949), 251-259.

Ir, Rudolf, et al. An Outline of Educational Psychology (College Outline Series). New York: Barnes and Noble, Inc., 1951.

Jck, Thomas Clark. The English Language in American Education Bulletin). New York: Modern Language Association of America, 194
y, R. G. The Teaching of English in Wisconsin. Madison, Wiscor The University of Wisconsin, 1948.

Henrietta V. Improvability: Its Intercorrelations and Its Relations to Initial Ability. New York: Teachers College, Columbia University, 1922.
ling and Grading Themes," College Composition and Communication, II (December, 1951), 14-15.
ling and Grading Themes," Collece Composition and Communication, V (October, 1954), 108-109.

Relevance of Tests to the Communication Course," College Composition and Communication, III (December, 1952), 21-23.

Irdson, Jemes W. Problems of Articulation between the Units of Secondary Education (Cortributions to Education, No. 604). New York: Teachers College, Columbia University, 1940.

Irdson, M. W. and G. F. Kuder. "The Calculation of Test Reliabili Coefficients Based on the Method of Rationals Equivalents, " Journ of Educational Psychology, XXX (1939), 681-687.
--. "Notes on the Rationals of Item Analysis," Psychometrika, I (1936), 67-76.

Melvin G. "The Relation of College Achievement Tests to Grades and to Intelligence," Journal of Educational Psychology, XXX (1939), pp. 397-400.
ns, Phyllis. An Approach to Composition Through Psychology Harvard Studies in Education, Vol. l2). Cambridge: Harvard Unive sity Press, 1929.
s, Douglas M. "The Essential Conditions of Measurement," Psychometrika, II (March, 1937), 27-34.
.lenberg, T. R. "What Employers Expect from College Courses in Composition and Communication," College Composition and Cormunication, IV (No. 1, February, 1953), 10-1l.
n, Simon. "Education, Learning, and Group Vork," Journal of Educational Sociology, XXIV (September 1950-May 1951), 132-143.

Smith, Dora V. "Recent Procedure in the Evaluation of Progress in English," Journal of Educational Research, XXXVI (1944), 262-275.

Stalnaker, John M. "Testing the Ability to Organize," English Journal, XXII (September, 1933), 361-367.
------ and Ruth C. "Reliable Reading of Essay Tests," School Review, XLII (October, 1934), 605.

Stephens, Stephen Deilitt. Individual Instruction in English Compositions. (Harvard Studies in Education, Vol. II). Cambridge: Harvard University Press, 1928.

Sterling, Edna L. "The What, When, Where, How of the Communication Arts," Education, LXXII (March, 1952), pp. 458-469.

Strickland, Ruth C. The Lancuage Arts in the Elementary School. Boston: D.C. Heath and Company, 1951.

Symonds, P. M. "Factors Influencing Test Reliability," Journal of Educational Psychology, XIX (February, 1928), 73-87.

Tinkleman, Sherman. Difficulty in Prediction of Test Items (Contributions to Education, No. 941). New York: Teachers College, Columbia University, 1947.

Toops. Herbert A. What We Are Failing to Measure in Education," Journal of Educational Research, XIII (1935), 118.

Trabue, Marion Rex. Completion-test Language Scales. New York: Odessey Press, 1950.
-------. "Supplementing the Hillegas Scale," Teachers College Record, XVIII (1917), 51-84.

Travers, R. M. W. How to Make Achievement Tests. New York: Odessey Press, 1950.

Traxler, A. E., and Harold A. Anderson. "The Reliability of an Essay Test in English," School Review, XLIII (September, 1935), 534-539.

Van Wagenen, M. J. "The Accuracy with Which English Themes May Be Graded with the Use of English Composition Scales," School and Society, XI(April 10, 1920), 441-450.
------- A Teachers' Manual in the Use of the Fducational Scales. Bloomington, Illinois: Public School Puilish Company, 1928.

Vaughan, Silliam Eugene. Articulation in English between the High School and College (Contributions to Education, No. 370). New York: Teachers College, Columbia University, 1929.

Walcott, Fred G. "Experiments in Composition," reprint from the University of Michigan School of Education Bulletin.

Waldhorn, Arthur. "The Term Paper: An Experiment in Group Interprise," College English, XII (March, 1951), 341-344.

Walker, Helen M. Statistical Inference. New York: Henry Holt and Company, 1953.

Watt, R. R. G. "Newer Emphasis in the Construction of Achievement Tests for College Students," Education, LXXI (December, 1950), 226-230.

Watson, Geowin. "An Evaluation of Small Group Work in a Large Class," Journal of Educational Psychology, XLIV (November, 1953), 383-408.

Weber, Clarence A. Personnel Problems of School Administrators. New York: McGraw-Hill Eook Company, 1954.

Webster's New Collegiate Dictionary (Second Edition). Springfield, Massachusetts: C. and C. Merriam Company, 1953.

Wert, James E., Charles O. Neidt, and J. Stanley Ahmann. Statistical Methods in Educational Research. New York: Appleton-CenturyCrofts, Inc., 1954.

Whitney, F. I. Methods in Educational Research. New York: D. Appleton and Company, 1931.

Williamson, Edmund G. and Edward S. Bordin. University of Minnesota Studies in Predicting Scholastic Achievement, Part I. Minneapolis, University of Minnesota, 1942.

Willing, M. N. "The Measurement of Written Composition in Grades IV to VII," The English Journal, VII (March, 1918), 193.
------. Valid Diagnosis in High School Composition. (Contributions to Education, No. 230). New York: Teachers College, Columbia University, 1926.

Woodworth, R. S. Experimental Psychology. New York: Henry Holt and Company, 1938.

Wycoff, George S. "Suggestions for the Reading of Themes," College English, XI (January, 1950), 210-214.
"Toward Achieving the Objectives of Freshman Composition," College English, X (March, 1949), 319-323.

## APPENDIX A

NUMERICAL DATA USED IN THE STUDY

CONTROL SECTION H-1: SCORES OI AMERICAN COUNCIL ON EDUCATION PSYCHOLOGICAL EXAMINATION, BARRETT-RYAN-SCHRAMMEL ENGLISH TEST, AND TEST THEMES

*American Council on Education Psychological Examination, 1940 edition, was given when students enrolled at Oklahoma A. \& M. College.
**Barrett-Ryan-Schrammel English Test, Forms Cm, Am, and Bm were given in first, fourth, and tenth weeks respectively.
***Themes I, IV, and $X$ were test themes written in the first, four th, and tenth weeks respectively and were scored for mechanics by Part II of the Guide for Editing Expository Themes and for content on Part I of the same guide. Raw scores are given above.

TABLE XXXII

EXPERIMENTAL SECTION H-1: SCORES ON AMERICAN COUNCIL ON EDJCATION PSYCHOLOGICAL EXAMINATION, BARRETT-RYAN-SCHRAMMEL ENGLISH TEST, ARU TES'I THEMES

| Student | Age | $\begin{aligned} & \text { A.C.E. }{ }^{*} \\ & \text { Raw Scores } \end{aligned}$ | $\begin{gathered} \text { A.C.E.* } \\ \text { Zile Scores } \end{gathered}$ |  | Theme*: Mechanics | Theme*** Content |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Q L T | 2 L T | Cm Am Bml | I IV X | I IV X |
| H-1-exp-01 | 19 | 223153 | $6 \quad 23$ | 53 P1 79 | $78 \quad 30 \quad 66$ | $23 \quad 12 \quad 29$ |
| 03 | 20 | 454489 | $\begin{array}{lll}63 & 16 & 23\end{array}$ | 104119116 | 478090 | $20 \quad 28 \quad 36$ |
| 04 | 19 | 223355 | 633 | $92 \quad 87120$ | $7584 \quad 95$ | 14.2633 |
| 05 | 19 | 315182 | $\begin{array}{lll}17 & 21 & 16\end{array}$ | $82 \quad 98 \quad 82$ | 965575 | $15 \quad 20 \quad 30$ |
| 06 | 19 | 4573118 | 637169 | 106115113 | 907266 | 213129 |
| 07 | 17 | 4366109 | $\begin{array}{lll}55 & 55 & 54\end{array}$ | 112111108 | 789692 | 253333 |
| 08 | 17 | 224769 | $\begin{array}{lll}6 & 14 & 8\end{array}$ | $\begin{array}{\|lll\|}69 & 77 & 80\end{array}$ | $5654 \quad 69$ | $2818 \quad 21$ |
| 09 | 18 | $35 \quad 50 \quad 8.5$ | $\begin{array}{lll}27 & 19 & 18\end{array}$ | $\begin{array}{lll}77 & 73 & 82\end{array}$ | 544980 | $20 \quad 20 \quad 15$ |
| 11 | 19 | $2760 \quad 27$ | $11 \begin{array}{lll}11 & 41 & 21\end{array}$ | 106121117 | $9590 \quad 90$ | $3635 \quad 34$ |
| 12 | 18. | 434487 | $\begin{array}{lll}55 & 10 & 21\end{array}$ | $96104 \quad 98$ | $6560 \quad 90$ | $13 \quad 13 \quad 13$ |
| 13 | 18 | $40 \quad 4787$ | 4414 | 127125128 | 857595 | 333435 |
| 14 | 19 | 415899 | 473630 | 80113114 | 858080 | 122430 |
| 15 | 19 | $3660 \quad 96$ | $30 \quad 4133$ | $\begin{array}{llll}98 & 97 & 98\end{array}$ | 605363 | $2528 \quad 28$ |
| 16 | 18 | 167 | $1 \begin{array}{lll}1 & 1\end{array}$ | 128132133 | 959694 | 343232 |
| 17 | 18 | 5676142 | $91 \quad 77 \quad 86$ | 81113111 | 858185 | $3128 \quad 28$ |

*American Council on Education Psychological Examination, 1940 edition, was given when students enrolled at Oklahoma A. \& M. College.
** Barrett-Ryan-Schrammel English Test, Forms Cm, Am, and Bm were given in first, fourth, and tenth weeks respectively.
\#**Themes I, IV, and $X$ were test themes written in first, fourth, and tenth weeks respectively and were scored for mechanics by Part II of the Guide for Editing Expository Themes and for content on Part I of the same guide. Raw scores are given below.

CONTROL SECTION G-2: SCORES OT AMERICAN COMMCIL ON EDUCATION PSYCHOLOGICAL EXAMINATION BARRETT-RYAN-SCHRAMMEL ENGLISH TEST. ANTD TEST THEMES

| Student | Age | A.C.E.* <br> Raw Scores | A.C.E.* qile Scores | $\begin{aligned} & \text { B. . . Sch.** } \\ & \text { Raw Scores } \end{aligned}$ | Theme* *: Mechanics | Theme*** Content |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Q L T | Q L T | Cm Am Bm | I IV X | I IV X |
| G-2-con-01 | 18 | $4157 \quad 98$ | $\begin{array}{llll}47 & 34 & 36\end{array}$ | $83 \quad 82 \quad 85$ | $86 \quad 67 \quad 86$ | $2 \quad 0 \quad 12$ |
| 02 |  | 434891 | $\begin{array}{lll}55 & 15 & 26\end{array}$ | $75 \quad 68 \quad 91$ | $9168 \quad 72$ | 14120 |
| 03 | 20 | 3971110 | $40 \quad 67 \quad 56$ | 123110120 | 887594 | $25 \quad 20 \quad 23$ |
| 04 | 18 | $35 \quad 62 \quad 97$ | $27 \quad 45 \quad 34$ | 121134140 | 869990 | $\begin{array}{lll}26 & 26 \quad 29\end{array}$ |
| 05 | 18 | 5991150 | 95 | 141137139 | 269868 | $2632 \quad 28$ |
| 06 |  | 445196 | $\begin{array}{lll}59 & 21 & 32\end{array}$ | 116115118 | 897183 | $18 \quad 24 \quad 28$ |
| 07 | 19 | 6374137 | $98 \quad 7391$ | 127125131 | 938098 | 182131 |
| 08 | 22 | 5080130 | $84 \quad 82 \quad 22$ | 110108116 | $8474 \quad 94$ | 111319 |
| 09 |  | 34649 | $\begin{array}{lll}1 & 12 & 1\end{array}$ | $95 \quad 90 \quad 99$ | 657787 | $1715 \quad 24$ |
| 10 |  | 425496 | $\begin{array}{lll}51 & 27 & 33\end{array}$ | $79 \quad 60 \quad 86$ | 686671 | 101213 |
| 11 | 20 | $17 \quad 46 \quad 63$ | 5118 | 130133131 | 998088 | $2530 \quad 26$ |
| 12 | 20 | 4779126 | $\begin{array}{llll}70 & 79 & 77\end{array}$ | 109118120 | 998068 | $2721 \quad 14$ |
| 13 | 19 | 3764101 | $33 \quad 50 \quad 41$ | $74 \quad 9978$ | 665462 | $\begin{array}{lll}13 & 23 \quad 27\end{array}$ |
| 14 |  | 5575130 | $\begin{array}{llll}90 & 75 & 84\end{array}$ | 107115104 | 787698 | $18 \quad 21 \quad 20$ |
| 15 | 18 | $36 \quad 58 \quad 94$ | $\begin{array}{llll}30 & 36 & 30\end{array}$ | $\begin{array}{llll}77 & 79 & 82\end{array}$ | $7260 \quad 52$ | $1317 \quad 13$ |

*American Council on Education Psychological Examination, 1940 odition: was given when students enrolled at Oklahoma A. \& M. College.
** Barrett-Ryan-Schrammel English Test, Forms Cm, Am, and Bm were given in irst, fourth, and tenth weeks respectively.
***Themes I, IV, and $Y$ were test themes written in first, fourth, and tenth weeks respectively and were scored for mechanics by Part II of the Guide for Editing Expository Themes and for content on Part I of the same guide. Raw scores are given above.

EXPERIMENTAL SECTION G-2: SCORES ON AMERICAN COUNCIL ON EDUCATION PSYCHOLOGICAL EXAMINATION, BARRETT-RYAN-SCHRAMMEL ENCLISH TEST, AND TEST THTMES

*American Council on Education Psychological Examination, 1940 edition jas given when students enrolled at Oklahoma A. $\varepsilon$ M. College.
**Barrett-Ryan-Schrammel English Test, Forms Cm, Am, and Bm were jiven in first, fourth, and tenth weeks respectively.
***Themes I, IV, and X were test themes written in first, fourth, and tenth weeks respectively and were scored for mechanics by Part II of she Guide for Editing Expository Themes and for content on Part I of the same guide. Raw scores are given above.

CONTROL SECTION D-3: SCORES ON AMERICAN COUNCIL ON EDUCATION PSYCHOLOGICAL EXAMINATION, BARRETT-RYAN-SCHRAMMEL ENGLISH TEST, AND TEST THEMES

*American Council on Education Psychological Examination, 1940 edition, as given when students erirolled at Oklahoma A. \& M. College.
** Barrett-Ryan-Schrammel English Test, Fcrms Cm, Am, and Bm were :iven in first, fourth, and tenth weeks respectively.
***Themes I, IV, and X were test themes written in first, fourth, and tenth weeks respectively and were scored for mechanics by Part II of ihe Guide for Editing Expository Themes and for content on Part $I$ of the lame guide. Raw scores are given below.

TABLE YYYVI

EXPERIMENTAL SECTION D-3: SCORES ON AMPIICAN COUNCIL ON EDUCATION PSYCHOLOGICAL EXAMINATION, BARRETT-RYAN-SGHRAMMEL ET?GLISH TEST, AND TFST THEMES

*American Council on Education Psychological Examination, 1940 edition vas given when students enrolled at Oklahoma A. \& M. College.
** Barrett-Ryan-Schrammel English Test, Forms Cm, Am, and Bm were siven in first, fourth, and tenth weeks respectively.

[^9]CONTROL SECTION A-4: SCORES ON AMERICAN COUNCIL ON EDUCATION PSYCHOLOGICAL EXAMINATION, BARRETT-RYAN-SCHRAMMEI ENGLISH TEST, AND TEST THEMES

*American Council on Education Psychological Examination, 1940 edition, as given when students enrolled at Oklahoma A. $\%$. College.
** Barrett-Ryan-Schrammel English Test, Forms Cm, Am, and Bm were ;iven in first, fourth, and tenth weeks respectively.
***Themes $I$, IV, and $X$ were test themes written in first, fourth, .nd tenth weeks respectively and were scored for mechanics by Part II of ihe Guide for Editing Expository Themes and for content on Part I of the same guide. Raw scores are given above.

TAELE XXXVIII

EXPERIMENTAL SECTIOM A-4: SCORES ON AMERICAN COUIICIL ON EDUCATION PSYCHOLOGICAL EXAMINATIDN, BARRETT-RYAN-SCHRAMMEL ESGILISH TEST, AMD TEST THEMES

| Student |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2 L T | Q | L | T | Cm Am Bm | I IV | X | I IV | X |
| A-4-exp-01 | 18 | 5283135 | 84 | 87 | 89 | 215103107 | 8468 | 84 | 2518 | 21 |
| 02 | 18 | $4450 \quad 94$ | 59 | 19 | 30 | $92105 \quad 83$ | 8876 | 90 | 712 | 17 |
| 05 | 18 | 4281123 | 51 | 2.5 | 76 | 101119115 | 8480 | 99 | 67 | 18 |
| 06 | 18 | $38 \quad 47 \quad 0.5$ | 36 | 14 | 18 | $58 \quad 74 \quad 95$ | 8386 | 90 | 1816 | 21 |
| 07 | 20 | 324173 | 17 | 7 | 10 | $41 \quad 64 \quad 72$ | 6378 | 70 | 148 | 17 |
| 08 | 18 | 393675 | 40 | 4 | 11 | $\begin{array}{lll}45 & 67 & 55\end{array}$ | 3650 | 56 | 411 | 12 |
| 09 | 19 | 485199 | 73 | 21 | 38 | 125110112 | 8590 | 83 | 2920 | 23 |
| 10 | 18 | $3650 \quad 87$ | 33 | 19 | 21 | 95129118 | 8480 | 90 | 2216 | 24 |
| 11 | 19 | 3876114 | 36 | 77 | 63 | $84 \quad 9493$ | 8881 | 78 | 2121 | 20 |
| 13 | 19 | 5064114 | 79 | 50 | 63 | 99112114 | 7285 | 91 | 1618 | 25 |
| 14 | 19 | 194766 | 4 | 14 | 6 | $47 \quad 58 \quad 54$ | 6645 | 68 | 1014 | 18 |
| 16 | 18 | 3970109 | 40 | 63 | 54 | $91 \quad 11599$ | 6376 | 58 | 2117 | 17 |
| 18 | 19 | $4454 \quad 98$ | 59 | 27 | 36 | 91117109 | 9189 | 85 | 1813 | 8 |
| 20 | 24 | 296190 | 14 | 43 | 24 | $\begin{array}{lll}66 & 79 & 83\end{array}$ | 3880 | 86 | 1913 | 28 |
| 25 | 19 | $3647 \quad 83$ | 30 | 14 | 17 | $\begin{array}{lll}66 & 85 & 87\end{array}$ | 5355 | 84 | 2011 | 20 |

*American Council on Education Psychological Examination, 1940 edition, was given when students enrolled at Oklahoma A. \& M. College.
** Barrett-Ryan-Schrammel English Test, Forms Cm, Am, and Bm were given in first, fourth, and tenth weeks respectively.
***Themes I, IV, and X were test themes written in first, fourth, and tenth weeks respectively and were scored for mechanics by Part II of the Guide for Editing Expository Themes and for content on Part I of the same guide. Rew scores are given below.

CONTROL SECTION B-7: SCORES ON ANEFICAN COUNCIL ON EDUCATION PSYCHOLOGICAL EXAMINATION, BARRETT-RYAN-SCHRAMMEL

ENGLISH TEST, AND T TST THEMES

| Student | Age | A.C.E.\# <br> Raw Scores |  | $\begin{aligned} & \text { A.C.F.* } \\ & \text { Rile Scores } \end{aligned}$ |  | $\begin{aligned} & \text { B...Sch.* } \\ & \text { Raw Scores } \end{aligned}$ |  |  | Theme**** Mechanics |  | Theme*** Content |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Q L | T | Q L | T | Cm | Am | 3m | I IV | X | I | IV | X |
| B-7-con-01 | 25 | 4055 | 95 | 4429 | 32 | 107 | 99 | 108 | 6488 | $65:$ |  | 614 | 23 |
| 02 | 18 | 2229 | 51 | 61 | 2 | 71 | 83 | 76 | 820 | 25 |  | 88 | 13 |
| 04 | 19 | 3444 | 78 | $24 \quad 10$ | 13 | -73 | 106 | 102 | 3867 | 99 |  | 120 | 19 |
| 05 | 17 | 3741 | 78 | 337 | 13 | 81 | 71 | 80 | 2810 | 61 |  | 2. 23 | 10 |
| 06 | 18 | 3148 | 79 | $17 \quad 15$ | 13 | 105 | 132 | 128 | 4818 | 90 |  | 026 | 26 |
| 07 | 19 | 2040 | 60 | 57 | 4 | 25 | 99 | 99 | 1628 | 70 ! |  | 619 | 11 |
| 08 | 18 | 2939 | 68 | 146 | 7 | 68 | 65 | 75 | 8018 | 46 |  | 612 | 11 |
| 09 | 18 | 4446 | 90 | 5912 | 24 | 62 | 68 | 78 | 6030 | 51 |  | 04 | 16 |
| 10 | 19 | 5341 | 94 | $86 \quad 7$ | 30 | $\bigcirc 1$ | 103 | 86 | 5430 | 70 |  | 49 | 15 |
| 11 | 18 | 3755 | 92 | $33 \quad 29$ | 27 | 117 | 110 | 102 | 8668 | 56 i |  | 130 | 21 |
| 12 | 31 | 3532 | 67 | 314 | 9 | 59 | 50 | 68 | 2024 | 12 |  | 510 | 20 |
| 13 | 18 | 1847 | 65 | $4 \quad 14$ | 6 | 45 | 71 |  | 822 | 44 |  | 215 | 20 |
| 14 | 23 | 3735 | 72 | $40 \quad 4$ | 10 | 74 | 81 | 100 | 1018 | 73 |  | 923 | 23 |
| 16 | 18 | 3344 | 77 | 2110 | 12 | 73 | 65 | 88 | 5230 | 35 |  | 612 | 9 |
| 18 | 18 | 3840 | 78 | 367 | 13 | 57 | 86 | 80 | 4442 | 46 |  | 411 | 12 |

*American Council on Education Psychological Examination, 1940 edition, ras given when students enrolled at Oklahoma A. \& M. College.
**Barrett-Ryan-Schrammel English Test, Forms Cm, Am, and Bin were ;iven in first, fourth, and tenth weeks respectively.
***Themes I, IV, and $X$ were test themes written in first, fourth, and Tenth weeks respectively and were scored for mechanics by Part II of ihe Guide for Editing Expository Themes and for content on Part I of the same guide. Raw scores are given below.

TABLE XL

EXPERIMENTAL SECTION B-7: SCORES ON AMERICAN COUNCIL CN EDUCATION PSYCHOLOGICAL EXAMINATION, BARRETT-RYAN-SCHRAMMEL ENGLISH TEST, AMD TEST THEMES

*American Council on Education Psychological Examination, 1940 edition, was given when students enrolled at Oklahoma A. \& M. Collȩ̣e.
**Barrett-Ryan-Schrammel English Test, Forms Cm, Am, and Bm were given in first, fourth, and tenth weeks respectively.
***Themes I, IV, and $X$ were test themes written in first, fourth, and tenth weeks respectively and were scored for mechanics by Part II of the Guide for Editing Expository Themes and for content on Part I of the same guide. Raw scores are given above.

ITEM ANALYSIS DATA FOR MAKING OF EDITING GUIDE, PART I: RAW SCORES OI CONTENT (Lowest 27\%)

'EM ANALYSIS DATA FOR MAKING OF EDITING GUIDE, PART I: RAN SCORES ON CONTEN. (Highest 27\%)

Items

|  |  | Al | A2 | B1 | B2 | B3 | B4 | B5 | C | D | Test |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Con. } \\ & \mathrm{H}-1 \end{aligned}$ | HH 1 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 34 |
|  | HH 2 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | 4 | 3 | 31 |
|  | HH 3 | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 31 |
|  | HH 4 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 32 |
| $\begin{aligned} & \text { Exp. } \\ & \mathrm{H}-1 \end{aligned}$ | HH 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 36 |
|  | HH 6 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 3 | 33 |
|  | HH 7 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 34 |
|  | HH 8 | 4 | 3 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 31 |
| $\begin{aligned} & \mathrm{Con} \text {. } \\ & \mathrm{G}-2 \end{aligned}$ | HG 9 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 25 |
|  | HG10 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 26 |
|  | HG11 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 26 |
|  | HGl2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 27 |
| $\begin{aligned} & \operatorname{Exp} . \\ & G-2 \end{aligned}$ | HGI3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 26 |
|  | HG14 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 27 |
|  | HG15 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 24 |
|  | HGI6 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 1 | 2 | 21 |
| $\begin{aligned} & \text { Con. } \\ & D-3 \end{aligned}$ | HD17 | 4 | 2 | 4 | 4 | 2 | 4 | 3 | 4 | 4 | 29 |
|  | HD18 | 4 | 2 | 4 | 4 | 1 | 2 | 1 | 2 | 4 | 26 |
|  | HD19 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 36 |
|  | HD20 | 4 | 2 | 4 | 4 | 2 | 4 | 2 | 4 | 2 | 28 |
| $\begin{aligned} & \text { Exp. } \\ & \text { D-3 } \end{aligned}$ | HD21 | 4 | 2 | 4 | 2 | 2 | 2 | 4 | 2 | 2 | 24 |
|  | HD22 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 34 |
|  | HD23 | 4 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 22 |
|  | HD24 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 34 |
| $\begin{aligned} & \mathrm{Con} . \\ & \mathrm{A}-4 \end{aligned}$ | HA25 | 3 | 2 | 1 | 3 | 2 | 2 | 2 | 3 | 2 | 21 |
|  | HA26 | 3 | 4 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 24 |
|  | HA27 | 4 | 2 | 4 | 2 | 3 | 3 | 3 | 3 | 3 | 28 |
|  | HA28 | 4 | 2 | 4 | 2 | 2 | 2 | 2 | 3 | 2 | 25 |
| $\begin{aligned} & \text { Exp. } \\ & A-4 \end{aligned}$ | HA29 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 25 |
|  | HA30 | 3 | 4 | 4 | 3 | 2 | 3 | 3 | 3 | 3 | 29 |
|  | HA31 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 22 |
|  | HA32 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 21 |
| $\begin{aligned} & \mathrm{Con} . \\ & \mathrm{B}-7 \end{aligned}$ | HB33 | 0 | 0 | 4 | 1 | 0 | 2 | 2 | 2 | 1 | 12 |
|  | HB34 | 0 | 0 | 3 | 1 | 0 | 3 | 3 | 3 | 0 | 13 |
|  | HB35 | 0 | 0 | 3 | 1 | 1 | 1 | 2 | 1 | 1 | 11 |
|  | HB36 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 0 | 18 |
| $\begin{aligned} & \text { Exp. } \\ & \mathrm{B}-7 \end{aligned}$ | HB37 | 2 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 1 | 20 |
|  | HB38 | 0 | 0 | 4 | 1 | 3 | 3 | 3 | 3 | 0 | 16 |
|  | HB39 | 1 | 3 | 2 | 1 | 1 | 3 | 3 | 3 | 1 | 14 |
|  | HB40 | 0 | 0 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 19 |

RAW SCORES OF THE TEN SAMPLE THEMES USED FOR TESTING PART ONE OF THE EDITING GUIDE

| A1 | A2 | B1 | B2 | B3 | B4 | B5 | C | D |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


|  | H1 | 0 | 12 | 6 | 9 | 8 | 8 | 8 | 8 | 12 | 71 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | G2 | 4 | 9 | 6 | 8 | 6 | 6 | 8 | 6 | 6 | 59 |
| 1 | D3 | 0 | 12 | 10 | 8 | 8 | 8 | 10 | 10 | 12 | 78 |
|  | A4 | 6 | 9 | 6 | 8 | 8 | 6 | 8 | 8 | 9 | 68 |
|  | B7 | 6 | 6 | 8 | 8 | 6 | 6 | 8 | 8 | 9 | 65 |
|  | H1 | 8 | 5 | 4 | 0 | 5 | 0 | 8 | 0 | 6 | 36 |
|  | G2 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 2 | D3 | 0 | 0 | 2 | 0 | 0 | 0 | 8 | 0 | 0 | 10 |
|  | $\mathrm{A}_{4}$ | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 6 |
|  | B7 | 2 | 3 | 8 | 2 | 0 | 0 | 10 | 2 | 3 | 30 |
|  | H1 | 8 | 12 | 6 | 4 | 8 | 6 | 8 | 2 | 6 | 60 |
|  | G2 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 3 | D3 | 0 | 0 | 6 | 0 | 4 | 0 | 10 | 4 | 3 | 27 |
|  | A4 | 6 | 9 | 8 | 8 | 8 | 8 | 8 | 4 | 10 | 69 |
|  | B7 | 10 | 6 | 8 | 4 | 6 | 2 | 10 | 4 | 12 | 62 |
|  | H1 | 10 | 15 | 10 | 10 | 10 | 8 | 10 | 10 | 12 | 95 |
|  | G2 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 4 | D3 | 10 | 9 | 8 | 4 | 2 | 4 | 8 | 0 | 3 | 48 |
|  | A4 | 8 | 6 | 6 | 2 | 4 | 4 | 6 | 4 | 6 | 46 |
|  | B7 | 10 | 6 | 8 | 10 | 2 | 4 | 6 | 4 | 6 | 56 |
|  | Hl | 0 | 0 | 4 | 2 | 4 | 4 | 8 | 0 | 0 | 22 |
|  | G2 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| 5 | D3 | 0 | 0 | 0 | 0 | 4 | 0 | 10 | 0 | 0 | 14 |
|  | A 4 | 6 | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 0 | 12 |
|  | B7 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 4 | 3 | 15 |
|  | H1 | 10 | 6 | 6 | 8 | 6 | 6 | 10 | 8 | 12 | 72 |
|  | G2 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 10 |
| 6 | D3 | 6 | 6 | 4 | 10 | 4 | 4 | 6 | 6 | 6 | 52 |
|  | A4 | 6 | 12 | 8 | 8 | 8 | 8 | 10 | 6 | 6 | 72 |
|  | B7 | 10 | 3 | g | 8 | 6 | 8 | 10 | 6 | 6 | 65 |
|  | Hl | 10 | 15 | 10 | 8 | 10 | 6 | 10 | 8 | 12 | 87 |
|  | G2 | 8 | 12 | 8 | 8 | 6 | 6 | 8 | 6 | 9 | 71 |
| 7 | D3 | 6 | 12 | 10 | 10 | 6 | 8 | 10 | 6 | 12 | 80 |
|  | A4 | 10 | 15 | 10 | 8 | 8 | 8 | 10 | 8 | 9 | 89 |
|  | B7 | 10 | 6 | 10 | 6 | 6 | 8 | 10 | 8 | 12 | 75 |


|  | H1 | 10 | 6 | 6 | 6 | 6 | 4 | 6 | 2 | 6 | 52 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | G2 | 10 | 0 | 4 | 0 | 0 | 0 | 6 | 0 | 0 | 20 |
| 8 | D3 | 10 | 6 | 8 | 0 | 2 | 2 | 10 | 2 | 3 | 43 |
|  | $\mathrm{A}_{4}$ | 6 | 3 | 2 | 2 | 2 | 4 | 6 | 4 | 6 | 35 |
|  | B7 | 6 | 6 | 4 | 6 | 0 | 4 | 4 | 0 | 6 | 36 |
| 9 | H1 | 10 | 9 | 8 | 8 | 6 | 8 | 8 | 10 | 12 | 79 |
|  | Q2 | 8 | 6 | 4 | 4 | 6 | 4 | 6 | 4 | 9 | 51 |
|  | D3 | 10 | 3 | 6 | 6 | 6 | 2 | 10 | 8 | 6 | 44 |
|  | A4 | 8 | 6 | 6 | 6 | 4 | 4 | 8 | 8 | 3 | 51 |
|  | B7 | 8 | 0 | 4 | 8 | 0 | 4 | 10 | 6 | 12 | 52 |
| 10 | H1 | 0 | 0 | 4 | 2 | 2 | 2 | 2 | 4 | 6 | 22 |
|  | G2 | 6 | 15 | 10 | 8 | 6 | 6 | 8 | 8 | 12 | 79 |
|  | D3 | 0 | 12 | 10 | 6 | 10 | 6 | 10 | 8 | 12 | 74 |
|  | A4 | 4 | 12 | 8 | 8 | 8 | 6 | 10 | 8 | 6 | 70 |
|  | B7 | 10 | 12 | 8 | 8 | 4 | 6 | 10 | 4 | 12 | 75 |

## APPENDIX B

MISCELLANEOUS

SOME ESSENTIALS FOR WRITING EXPOSITORY THEMES
I. Main idea
A. Stated in complete, specific, exact sentence
B. Restricted to the space and to the ability of the writer
C. Adhered to throughout the theme
II. Introduction
A. Leads into the paper
B. Provides necessary preliminary information and background
C. Sets tone of paper and establishes the point of view
D. Attracts the reader's attention and interest
E. Is not too long for the paper
III. Development of the main idea
A. Proper definition (simple, clear, complete)

1. Put the term in its general class
2. Restrict it within that class
B. Analysis (clear plan, proportion, parallel topics)
3. Structural (branches, kinds, types, ways)
4. Chronological (time or order of events)
5. Spacial (arrangement in space)
6. Logical (climax, anticlimax, cause and effect)
C. Illustration (valid, adequate, clear)
7. Particulars
8. Examples or instances
9. Incident
10. Analogy
D. Evidence (sound, adequate, appropriate style)
11. Induction (leading to a justipied generalization)
12. Deduction (logical, consistent, valid)
a. Middle term must mean the same in both major and minor premise
b. Middle term must be distributed
c. One premise must be about all members of a class
d. Both premises must be true
E. Classification
13. Basis: similarity and difference
14. Relationship between ideas
a. Coordination
b. Subordination
F. Unity (Tell the story, the whole story, and nothing but the story, so help you English grammar.)
15. Focus (maintained through a well stated main idea)
16. All ideas related to main idea
17. Completeness
G. Continuity and coherence
18. Signposts of the main idea
a. Paragraphs and sentences of transition
b. Words of transition
c. Repetition of words and ideas
d. Word order
19. Parallelism
H. Point of view and tone
20. Gonsistency of tone
21. Consistency of point of view
22. Consistency of person, time, and space
IV. Conclusion
A. Closes paper maturally
B. Recalls main idea and helps reader to see what has been accomplished
C. Final suggestions or warnings
D. Must be logical and appropriate
E. May be a summary, a brief statement, a dramatic incident
23. Main idea ( 15 points)
24. Stated in complete, correct, clear, important sentence
25. Adhered to throughout the theme
26. Introduction ( 5 points)
27. Leads into paper and establishes validity of material
28. Includes statement of purpose or central thought
29. Provides necessary background and preliminary information
30. Sets tone and point of view of paper
31. Attracts interest of reader; but is not too long
i. Development of the main idea ( 50 points)
32. Definition (simple, clear, complete; puts terms in general class and restricts it)
33. Illustration (valid, adequate, clear, specific)
34. Analysis
35. Evidence (sound, reliable, valid, adequate, appropriate)
36. Classification (based on similarity and difference; coordination and subordination)
37. Continuity and coherence (transition, word order, repetition)
38. Unity (focus, relevance, completeness)
39. Organization (use of outlining, clear plan, parallel topics)
40. Point of view and tone (consistent and appropriate)
41. Reasoning (logical and consistent)
42. Conclusion (15 points)
43. Closes the paper naturally
44. Recalls central idea and shows what has been accomplished
45. May make final suggestions or warnings
46. May be fuil summary, brief final statement, dramatic incident, or request for action or attitude
47. Must be logical and appropriate

- Miscellaneous (15 points)

1. Sentence variety
2. Paragraph structure
3. Word choice
4. Originality and reader appeal

Total for content $\qquad$

## Correctness

- Sentence Structure ( 24 points)
- Grammar (18 points)
- Diction (12 points)
- Punctuation (l8 points)
- Manuscript Form (6 points)
- Spelling ( 15 points)
- Research (6 points)


## EDITING GUIDE FOR THEMES

## I. ORGANIZATIO! OF CONTENT

1. Main Idea ( 25 points)
a. Is the statement of the main idea clear and specific? $\qquad$
b. Is the statement actually developed throughout the theme? $\qquad$
Number of points $\qquad$
2. Developing (50 points)
a. Does the theme exclude irrelevant matter? $\qquad$
b. Is the theme in logical order? $\qquad$
c. Is there enough detail appropriate to the purpose? $\qquad$
d. Is the proportion appropriate to the purpose? $\qquad$
e. Is the point of view appropriate and consistent? $\qquad$
Number of points $\qquad$
3. Paragraphing (10 points)
a. Is each paragraph justified? $\qquad$
b. Is each paragraph sufficiently developed? $\qquad$
Number of points $\qquad$
4. Reader Appeal ( 15 points)
a. Are the sentences easy to read? $\qquad$
b. Are the words well chosen? $\qquad$
c. Are suitable transitions provided? $\qquad$
d. Are illustrations provided? $\qquad$
e. Are beginning and end clearcut and effective? $\qquad$
Number of points $\qquad$

TOTAL NUMBER OF POINTS $\qquad$

## II. CORRECTNESS OF PERFORMANCE

1. Words (15 points)
a. Spelling
b. Correctness

Number of points $\qquad$
2. Grammar (50 points)
a. Agreement of subject and verb
b. Use of correct part of speech
c. Proper relation of subordinate clauses and phrases
d. Tense forms

Number of points $\qquad$
3. Punctuation (20 points)
a. Period fault
b. Comma fault
c. Confusing punctuation (or lack of punctuation)
d. Minor errors

Number of points $\qquad$
4. Manuscript form (15 points)
a. Capitalization and abbreviation
b. Syllabication
c. Faulty title and margin
d. Margins
e. Eligibility

Number of points $\qquad$

## GUIDE FOR EDITING EXPOSITORY THENES

## I. Organization of Content

(ain Idea (25 points)

1. Is the statement of the main idea clear and specific?

2. Is the statement actually developed throughout the theme?


Number of points $\qquad$
levelopment of Theme ( 50 points)

1. Does the theme exclude all irrelevant matter?
 0
All matter relevant Minor irrelevance Little relevance to main idea
2. Is the substance in logical order?

| $\frac{10}{\text { Proper order, }}$connectives, and <br> transitions; clearness | Good order, but some <br> faulty transition, or <br> wrong connectives |
| :--- | :--- | | Poor order, |
| :--- |
| lack of transit |
| not clear |

3. Is there enough detail to develop the subject?

4. Are proportion and emphasis appropriate to the purpose?

5. Is the point of view appropriate and consistent?


Consistent and appropriate; Point of view not clear, maintained throughout the appropriate, or maintained theme

Number of points $\qquad$
C. Paragraphing (10 points)

Is each paragraph justified and sufficiently developed?


Number of points $\qquad$
D. Reader Appeal ( 15 points)

Are the words, sentences, and illustrations appropriate; are the beginning and end clearcut and effective?
 and end.

Number of points $\qquad$

TOTAL POINTS ON ORGANIZATION $\qquad$
II. Correctness of Performance
A. Spelling and Correct Words (20 points) Deduct five points for each violation.

B. Grammar (60 pointa) Deduct ten points for each violation up to six.

1. Agreement of subject and verb
2. Use of correct part of speech
3. Correct use of pronouns
4. Proper relation of subordinate clauses and phrases
5. Proper tense forms
6. Complete, correct sentences

C. Punctuation ( 10 points) Deduct two points for each violation up to five. (Period, comma, colon, semicolon, quotation, etc.)

D. Manuscript Form ( 10 points) Deduct two points for each violation up to five. (Capitalization, abbreviations, title and margin, legibility, syllabication, etc.)


TOTAL POINTS ON CORRECTNESS

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Aggie Boyet candidate for the degree of Doctor of Education
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Thesis: THE EFFECT OF STUDENT GROUP EDITING OF THEMES ON THE IMPROVEMENT OF WRITING IN FRESHMAN COMPOSITION

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Date of Final Examination: July 21, 1955

THESIS TITLE: THE EFFECT OF STUDENT GROUP EDITING OF THEMES ON THE IMPROVEMENT OF WRITING IN FRESHMAN COMPOSITION

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The content and form have been checked and approved by the author and thesis adviser. The Graduate School Office assumes no responsibility for errors either in form or content. The copies are sent to the bindery just as they are approved by the author and the faculty adviser.


[^0]:    $1_{\text {National Council of Teachers of English, op. cit., p. } 327 .}$
    ${ }^{2}$ B. Lamar Johnson, General Education in Action (Washing ton, 1952), p. 140 .
    ${ }^{3}$ Edna Hays, College Entrance Reguirements in English: Their Effects on the High Schools (New York, 1936), p. 71.

[^1]:    $l_{\text {Ibid }}$.
    ${ }^{2}$ Constitution of the National Council of Teachers of English.
    ${ }^{3}$ Stephen D. Stephens, Individual Instruction in English Composition (Cambridge, 1938).

[^2]:    $1_{\text {Harry }}$ A. Greene, "English - Lancuacee, Grammar, and Composition," Encyclopedia of Educational Research (New York, 1950), p. 392.
    $2_{\text {Robert }}$ H. Moore, "The !lriting Clinic and the Writing Laborator $J, "$ College English, XI (April, 1950), 3F-393.
    ${ }^{3}$ Strang Lawson, "The Coalgate Plan for Improving Student "riting," College English, XXXIX (May, 1953), 288-290.

    4Harold E. Briges, "Applications of the Principles of Group Dynamics in the College Cisssrcom," Collece English, XXI (November, 1950), 84-90.

    5 Arthur Naldhorn, "The Term Paper: An Experiment in Group Enterprise," College English, XII (Narch, 1951), 341-344。

[^3]:    $l_{\text {Delmar Rodabaugh, "Assigning and Commenting on Themes," College }}$ English, XVI (October, 1954), 33-37.
    ${ }^{2}$ Ethel I. Salisbury, "Children Learn to Edit," Elementary English, XXX (November, 1953), 434-443.
    ${ }^{3}$ Emily Betts Gregory, "Managing Student Editing," The EnElish Journal, XLIV (January, 1955), 18-25.

[^4]:    IFred G. Walcott, "Experiments in Composition," reprint from The $^{\text {F }}$ University of Michigan School of Education Bulletine p. 16.

    2See pp. 12-13.

[^5]:    $I_{\text {Oscar Krisen Buros (Ed.), The Fourth Kental Measurements Yearbook }}$ (Highland Park, New Jersey, 1953), p. 180.
    ${ }^{2}$ Ibid., p. 117.
    $3^{3}$ Ibid.

[^6]:    $1_{\text {A. }}$. Coward, "Comparison of Two Methods of Grading Eng lish Composition," Journal of Educational Research, XLVI (October, 1952), 93.
    ${ }^{2}$ John C. Guerber, "Testing and Evaluation in the Skills of Communication," Collepe English, IX (April, 1948), 375-384.
    $3^{3}$. M. Jordan, Measurement in Education (New York, 1953), P. 165.
    ${ }^{4}$ Archibald A. Hill, "Correctness and Style in English Composition," College English, XII (February, 1951), 285.

[^7]:    $1_{\text {Perrin, et }}$ al., op. cit., pp. 233-239.

[^8]:    $l_{\text {Souers, }}$ et al., op. cit., pp. 9-12.
    2 IbId., pp. 6-8.

[^9]:    ***Themes I, IV, and X were test themes written in first, fourth, and tenth weeks respectively and were scored for mechanics by Part II of the Guide for Editing Expository Themes and for content on Part I of the same guide. Raw scores are given below.

