WESTON, James Jolliff, 1929--
CRITICAL REQUIREMENTS FOR HIGH
SCHOOL TYPEWRITING TEACHERS BASED
UPON AN ANALYSIS OF CRITICAL INCIDENTS.

University of Arizona, Ed.D., 1961
Education, theory and practice

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1961
CRITICAL REQUIREMENTS FOR HIGH SCHOOL TYPEWRITING TEACHERS BASED UPON AN ANALYSIS OF CRITICAL INCIDENTS

by

James J. Weston

A Dissertation Submitted to the Faculty of the COLLEGE OF EDUCATION In Partial Fulfillment of the Requirements For the Degree of DOCTOR OF EDUCATION In the Graduate College THE UNIVERSITY OF ARIZONA 1961
I hereby recommend that this dissertation prepared under my direction by James Jelliff Weston entitled CRITICAL REQUIREMENTS FOR HIGH SCHOOL TYPWRITING TEACHERS BASED UPON AN ANALYSIS OF CRITICAL INCIDENTS be accepted as fulfilling the dissertation requirement of the degree of Doctor of Education.

Dissertation Director

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APPROVAL BY THESIS DIRECTOR

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May 3, 1961

O. K. Garretson
Professor of Education
ACKNOWLEDGMENTS

The planning and carrying out of this study has placed the writer in debt to many persons.

I am especially grateful to Professor O. K. Garretson, my major advisor and dissertation director, and to Professor H. J. Langen, my minor advisor and dissertation co-director. These fine gentlemen have been both inspiring and patient.

I wish to acknowledge the encouragement and advice received from the other dissertation committee members, Associate Professor Emil Gavlak and Assistant Professors Richard Kidwell and Raymond Klein.

Other persons who gave freely of their time and efforts were: Robert Letson, Florence Toland, Bernardyne Aston, Patience Wilson, Alfred Zammit, Barbara Randall, Richard Shelton, Shirley Storm, John Weston, and Eloine Weston.

Finally, I am deeply indebted to the high school teachers, administrators, and students, and the members of the National Secretaries Association who provided the critical-incident data for this study. Without their fine cooperation this study would not have been possible.

J. J. W.
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CHAPTER I

THE PROBLEM

I. Statement of the Problem

The purpose of this study is to determine critical requirements for successful teachers of typewriting. Specific objectives of the study are: (1) to collect and analyze a group of critical incidents performed by typewriting teachers; (2) to develop a technique applicable in this and related business education areas; and (3) to evaluate the effectiveness of the critical-incident technique as a research method for determining critical requirements for teachers of business education skill subjects such as typewriting, shorthand, and bookkeeping.

II. Definition of Terms

Terms used frequently throughout this study are defined as follows:

1. Observers: The teachers of typewriting, secondary school administrative heads, high school students, and the professional secretaries who supplied the data for this study in the form of critical incidents.
2. **Critical Incident**: A written, detailed report of an observed classroom situation, practice, or incident involving a typewriting teacher in which that teacher's behavior was judged particularly good and/or appropriate, or particularly poor and/or inappropriate, by an observer. Critical incidents of the good and/or appropriate type are referred to throughout this study as **effective critical incidents**. Critical incidents of the poor and/or inappropriate type are referred to throughout this study as **ineffective critical incidents**.

3. **Critical Behavior**: A specific action performed by a typewriting teacher. A critical behavior is, in essence, an abstract of the critical incident from which it was derived.

4. **Critical Requirement**: A descriptive statement in behavioral terms describing a significant behavioral pattern to which typewriting teachers, to be effective, should conform.

5. **Critical- Incident Technique**: An observational method of studying human behavior. The present study utilizes an adaptation of this method which, in essence, consists of three steps:

   a. collecting descriptions of directly observed behavior by means of certain media such as questionnaires or personal interviews; (These descriptions are called **critical incidents**.)

   b. analyzing the descriptions to categorize and sub-categorize similar types of behavior that are reported; and,

   c. making generalizations based on the categories and sub-categories of behavior which have shown
up in the analyses. (These generalizations, in their final forms, are called critical requirements.)

III. Significance of the Study

Although there are certain educational needs common to all teachers, it is recognized that practically every area of teaching has its own unique educational needs. The results of this study should prove useful to those educators at the university and college level whose job it is to satisfy the educational needs of high school business education teachers, by providing an improved understanding of the requirements for successful performance by high school teachers of typewriting.

The results of this study should prove of value to administrators, supervisors, and department heads concerned with the improvement of typewriting instruction and the rating and promotion of typewriting teachers. In addition, the results should prove to be of value to high school typewriting teachers as a guide for self-evaluation and self-improvement.

IV. Method of Treatment and Review of Related Literature

The research method utilized by this study, i.e., the collection and analysis of written descriptions of
directly observed classroom incidents involving teachers of typewriting, is an adaptation of the behavioral approach known as the critical-incident technique. By virtue of his participation in the many critical-incident-technique studies completed by the Aviation Psychology Program, the American Institute for Research, and the University of Pittsburgh, the psychologist, Dr. John C. Flanagan, is considered the foremost authority on this method of research. This technique has been defined by Flanagan as follows:

The critical incident technique consists of a set of procedures for collecting direct observations of human behavior in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles.

By an incident is meant any observable human activity that is sufficiently complete in itself to permit inferences and predictions to be made about the person performing the act. To be critical, an incident must occur in a situation where the purpose or intent of the act seems fairly clear to the observer and where its consequences are sufficiently definite to leave little doubt concerning its effect.

Certainly in its broad outlines and basic approach the critical incident technique has very little which is new about it. People have been making observations on other people for centuries. The work of many of the great writers of the past indicates that they were keen observers of their fellow men. Some of these writers must have relied on detailed notes made from their observations. Others may have had unusual abilities to reconstruct memory images in vivid detail.

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Some may have even made a series of relatively systematic observations of many instances of a particular type of behavior. Perhaps what is most conspicuously needed to supplement these activities is a set of procedures for analyzing and synthesizing such observations into a number of relationships that can be tested by making additional observations under more carefully controlled conditions.

Although generally considered the invention of Dr. Flanagan, the roots of the critical-incident technique go back nearly three quarters of a century to certain studies made by Sir Francis Galton. However, the critical-incident technique, with its many adaptations, can best be regarded as an outgrowth of several of the studies of the Aviation Psychology Program of the United States Army Air Forces, which was established in 1941 to develop procedures for the selection and classification of aircrews. Flanagan has pointed out five of the studies completed by the Aviation Psychology Program during the second World War which seem to be of special significance in that they represent examples of the first carefully planned applications of the basic theory of the critical-incident technique to important problems.

The first of these five studies, which provided the basis for a research program on selecting pilots, dealt with

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4Ibid.
an analysis of the reasons for the elimination of cadets from pilot training. Miller describes the essence of this study as follows:

When a student was eliminated from one of the pilot training schools, a summary was prepared of the reasons why he had failed to make successful progress in learning to fly . . . . an analysis of these reports was made in order to determine the nature and frequency of various reasons that were given as causes of elimination. A preliminary analysis was made of these reports for 300 students who were eliminated from flying training during the early part of the summer of 1941. On the basis of the categories determined in the preliminary study, a more complete analysis was made of 1,000 additional cadets who were eliminated during the summer and fall of the same year.

During 1943, 1944, and 1945, the second study was conducted. The study surveyed reasons for bombing mission failures in the Eighth, Ninth, Twelfth, and Fifteenth Air Forces. A series of questionnaires was responded to by approximately 2,250 bomber pilots, bombardiers, and navigators passing through the redistribution stations, who had completed combat tours in the various theatres of war. The findings of this study provided the basis for recommendations.

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that resulted in changes in Air Force selection and training procedures.

The third study, conducted during 1944 and 1945, dealt with the problem of combat leadership in the United States Army Air Forces. The study was actually a series of three smaller studies for which thousands of descriptive statements were collected from officer combat returnees. It seems to represent the first large-scale application of the critical-incident technique. The descriptive categories which were derived were called the critical requirements of combat leadership.

The fourth study was concerned with collecting behavioral information about the problem of vertigo while flying. (The term vertigo was used to denote any experienced uncertainty, on the part of a pilot, as to his spatial position in relation to the vertical.) Returnee pilots passing through redistribution centers were asked to respond to questionnaires and to write detailed descriptions of their experiences.

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experiences with strong or mild vertigo. The findings of this investigation led to recommendations regarding changes in training in order to prevent and overcome vertigo while flying and also regarding changes in cockpit and instrument panel design. Wickert summarized this study:

This investigation was concerned with collecting and reporting a systematized body of information about the problem of vertigo in flying. The conditions which set the stage for vertigo were studied from both a recall and a recognition approach. Methods used in overcoming and preventing vertigo were presented in the order of their frequency of mention, as were comments on the efficacy of training concerning vertigo. Suggestions for improvement of cockpit and instrument panel design for better prevention of vertigo were also listed in order of frequency of mention.

The fifth of these studies, completed in 1946, utilized electrically recorded interviews with, and written reports by, pilots in order to isolate and categorize specific experiences concerning take off and landing, using controls, and using and flying on instruments. The findings were used as a basis for planning research on the design and arrangement of instruments and controls.

9Ibid., pp. 153-54.
From 1947 to 1949 the critical-incident technique was used by the American Institute for Research in several notable studies. The American Institute for Research was manned, at that time, by a number of psychologists who had been active in the Aviation Psychology Program. The studies they conducted were very similar to the studies reviewed earlier in this chapter. In connection with these studies at the American Institute for Research the title critical-incident technique was formally applied to this method of research.

The first of these studies was completed in 1947. It dealt with the determination of the critical requirements for the work of an officer in the United States Air Force. Three thousand twenty-nine critical incidents were obtained from 640 officers; 77 critical requirements, classified into six major areas, were derived.

In the second study, also completed in 1947, interviews with pilots and check-pilots, Civil Aeronautics Board accident records, and pilots' personnel files were used to classify 787 critical behaviors. Twenty-one critical

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requirements for commercial airline pilots were determined. An extension of this study was the development of a standard flight-check for airline transport rating which was published in 1949.

In 1948 the American Institute for Research undertook the task of determining the critical requirements for research personnel. Approximately 500 scientists in 20 research laboratories were interviewed. The study, which was sponsored by the Scientific Personnel Advisory Committee of the American Council on Education with funds provided by the Psychological Sciences Division of the Office of Naval Research, netted 2,573 critical incidents. Thirty-six critical requirements for effective performance of the duties of research personnel in the physical sciences were derived.

Also in 1948 the American Institute for Research completed a study sponsored by the Committee on Aviation


Psychology of the National Research Council, which was concerned with the air traffic controller's job. One thousand two hundred forty-nine critical incidents were collected by interviews conducted by personnel of the Civil Aeronautics Administration. Sixty-one critical requirements were derived. Regarding this study, Flanagan reports:

... one of the innovations in this study was the use of personnel of the Civil Aeronautics Administration who had no previous psychological training in collecting critical incidents by means of personal interviews. In previous studies all such interviewing had been conducted by psychologists with extensive training in such procedures. In this study, aeronautical specialists from each of the seven regions conducted the interviews in their regions after a brief training period. An interesting finding from this study was the clear reflection of seasonal variations in flying conditions in the types of incidents reported. The study also demonstrated the selective recall of dramatic or other special types of incidents. This bias was especially noticeable in the incidents reported several months after their occurrence. The incidents obtained in this study were used to develop procedures for evaluating the proficiency of air route traffic controllers and also for developing a battery of selection tests for this type of personnel.

The hourly-wage employees in the Delco-Remy Division of the General Motors Corporation provided the subject matter for a study undertaken by the American Institute for


Research in 1949. This was the first application of the critical-incident technique to an industrial situation. Approximately three thousand critical incidents were collected from interviews with foremen, and by daily, weekly, and fortnightly reports made by foremen. Thirty-three critical requirements were determined. The critical requirements were then incorporated into a Performance Report Form to be used for evaluating each hourly-wage employee.

The critical-incident technique has been used in thirteen known instances as the research method for master's theses and doctoral dissertations in psychology at the University of Pittsburgh. All thirteen of these studies were directed by Dr. Flanagan. The first four were completed in 1949 by Wagner, Finkle, Nevins, and Nagay.

The dissertation by Wagner was concerned with the critical requirements for dentists, for which critical incidents were obtained from patients, dentists, and instructors in dental school clinics. Finkle's dissertation


was an effort to determine the critical requirements of the job of foreman at the East Pittsburgh Plant of the Westinghouse Electric Corporation. The master's thesis by Nevins derived the critical requirements for bookkeepers in sales companies. Regarding this study, Flanagan reports:

\[\text{Nevins\textsuperscript{7}}\text{ collected incidents relating to applicants for bookkeeping positions as well as for employees working in this capacity.} \]

For the collection of the information about the practicing bookkeepers, a modification in the critical incident technique was made. This was done because, in the bookkeeping profession, success and failure are usually defined in terms of persistent behavioral patterns. Occasional mistakes in adding and balancing accounts are expected, but repeated errors are considered serious. Instead of the single incident, therefore, many of the items included represented either a pattern of behavior or a series of similar behaviors.

The master's thesis submitted by Nagay was merely a part of the American Institute for Research study concerning air route traffic controllers which was reviewed earlier in this chapter.

In 1951 dissertations utilizing the critical-incident technique were submitted by Weislogel and Smit.

\[\text{23 Charlottc I. Nevins, "An Analysis of Reasons for the Success or Failure of Bookkeepers in Sales Companies" (unpublished master's thesis, University of Pittsburgh, 1949).} \]

\[\text{24 Flanagan, "The Critical Incident Technique," p. 333.} \]

The study by Weislogel determined critical requirements for life insurance agency heads. Critical incidents were obtained, by a group interview method, from agents, managers, general agents, cashiers and planners, supervisors, and home office personnel.

Smit studied instructors of general psychology courses by collecting critical incidents from students at the University of Pittsburgh and Northwestern University, and from staff members of the department of psychology at the University of Pittsburgh.

The dissertation by Eilbert, submitted in 1952, was a study of emotional immaturity. The purpose was to establish a usable, relatively clearcut definition of an emotionally immature reaction; the definition was presented in the form of a list of types of reactions which were considered to be definite manifestations of emotional immaturity. The critical-incident technique was used to gather

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specific incidents of emotionally immature reactions to situations.

In 1953 Folley completed a master's thesis in which he developed a list of critical requirements for retail sales personnel from the standpoint of customer satisfaction. Shoppers provided written narrative records of individual shopping incidents from which the behaviors were abstracted.

In a dissertation submitted in 1954, Konigsburg developed and made a preliminary evaluation of a college instructor check list based on the critical-incident technique.

Also submitted in 1954 was the dissertation by Collins which was a study of parent attitudes on child management before and after training. The subjects studied were mothers attending a training program for parents of hearing-handicapped children. Situational Check Lists and


The University of Southern California Parent Attitude Survey were used in addition to critical incidents reported by mothers and by staff observers. An important conclusion was that the critical-incident technique is a far more sensitive indicator of attitude change than is a questionnaire such as the University of Southern California Parent Attitude Survey. It seems very possible that this interesting conclusion may contain an element of institutional bias.

In 1956 Gropper submitted a dissertation concerned with the development of criteria for the effectiveness of decision-making conferences. Business executives, government officials, and military officers contributed critical incidents from which the critical requirements of conference behavior were determined.

In 1957 Kubany completed a dissertation in which different measures for evaluating medical students in their clinical years were developed, tried, and analyzed. One measure studied was a performance record, consisting of a one-page rating scale of eight critical areas of physician


activity, constructed from data developed at the University of Pittsburgh School of Medicine, as well as data from a critical-incident study of practicing physicians.

In the field of educational research, the basic idea of the critical-incident technique was in use long before the method was formalized. Early studies by Buellesfield, Charters, Morrison, and Hart illustrate this fact. During the winter of 1913-14, Buellesfield sent a questionnaire to 300 school men asking for descriptions of traits, personal qualities, and types of behavior which contributed to failures among teachers. Failure was defined as loss of position. Twenty-seven causes of failure were revealed through this study.

In the 1920's Charters developed a personnel-analysis method which was quite similar to certain adaptations of the critical-incident technique. Charters and his associates used the personal interview to gather and categorize traits and trait actions (behaviors) of high-school teachers, housewives, and pharmacists. Apparently a major difference between the personnel-analysis method and


the critical-incident technique is that for the former usually no more than thirty interviews were used for any one study. Critical-incident-technique studies utilizing personal interviews, on the other hand, usually include at least fifty interviews.

In collaboration with Whitley, Charters undertook a somewhat more ambitious study, published in 1924, which was concerned with defining the duties of secretaries and the qualities conspicuously present in successful secretaries and conspicuously absent in unsuccessful secretaries. From 125 planned personal interviews with secretaries, a check list containing 871 secretarial duties was devised. In turn the check list was sent in questionnaire form by mail to nearly two thousand secretaries; 715 were returned. The ten top-ranking secretarial duties which were revealed were, in order: typewriting letters; answering the telephone; taking dictation of letters; transcribing letters; local use of the telephone; addressing envelopes, packages, etc.; inserting letters in envelopes; folding letters; ordering supplies; and placing telephone memorandums where employer will see them.

The traits of successful and unsuccessful secretaries were determined by 28 interviews with prominent men. The traits were defined in terms of trait-action, i.e., behaviors by which the possession of the trait is demonstrated. The top ten traits which were revealed were: accuracy, responsibility, dependability, intelligence, courtesy, initiative, judgment, tact, personal pleasantness, and personal appearance.

In 1926-27 Morrison interviewed superintendents and school board members who sought teachers at the Colorado State Teachers College, in an attempt to discover the causes which led to the dismissal of teachers. From each interview he abstracted and classified the specific traits and behaviors which seemed to have contributed to the dismissal of the teacher involved. The final list included forty-five classifications.

In 1934 Hart published the results of a study concerned with pupil likes and dislikes regarding their high school teachers. Some ten thousand seniors in sixty-six high schools in widely distributed sections of the country


participated. This study is of particular interest with regard to the present study because it not only utilized an approach similar to the critical-incident technique, but it also illustrates the use of student observations and opinions of their teachers. The present study utilizes student observations and opinions in a somewhat similar fashion.

Each student was asked to write a description of why he liked a certain teacher (Teacher A) best from among all the teachers he had had in high school. In the same fashion, he was asked to describe why he liked another teacher (Teacher Z) the least. Also, if the student considered his most effective teacher as having been someone other than Teacher A or Teacher Z, he was asked to describe how that teacher (Teacher H) differed from Teacher A. From an analysis of the thousands of replies, Hart compiled lists of characteristics and traits of the three types of teachers in question.

Apparently the first application, per se, of the critical-incident technique in the field of educational research was as a portion of the Teacher Characteristics Study.

The Teacher Characteristics Study, initiated in

1949, was an extensive, 6-year investigation which was sponsored by the American Council on Education with funds provided by a subvention from the Grant Foundation. The principal objectives of this study were the identification and analysis of patterns of teacher behavior, as well as the development of materials useful for the prediction of teacher behavior. One of the earliest projects undertaken in this investigation was an attempt to determine a list of critical requirements for public school teachers. Some 500 critical incidents were gathered from supervisors, training-teachers, students in methods-of-teaching courses, public school teachers, student practice-teachers, and school principals in the Los Angeles area. The list of effective and ineffective critical requirements which were derived fell into three major categories: personal qualities, professional qualities, and social qualities.

The remaining applications in educational research appear to be doctoral dissertations.  

In 1952 Barnhart submitted a dissertation to the University of Indiana concerned with the critical requirements for school board membership. By questionnaire, 741

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critical incidents were collected from superintendents of schools and the presidents and secretaries of the boards of education in cities of 2,500 and over in thirteen midwestern states. According to the findings of this study, it would seem that the important areas of critical requirement for school board membership, in descending order of importance, are:

1. Acceptance of the principle of board unity and the subordination of self-interests to that unity;
2. The demonstration of initiative, informed leadership, and insight;
3. Understanding of the executive function;
4. Effectiveness in staff and group relationships;
5. Courageous action for the good of the schools in spite of outside pressures and influence;
6. Effectiveness in personal relationships.

In 1953 Collins submitted a dissertation to Columbia University which dealt with the critical requirements of high school principals. All of the critical incidents for this study were gathered by personal interview on the part of the author, with the following areas of critical behavior being defined, not necessarily in order of

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importance:

1. Winning the respect and approval of students;
2. Organizing, managing, and coordinating components of the school;
3. Improving curriculum and teaching;
4. Enlisting the support and cooperation of the community;
5. Participating in community affairs;
6. Executing policies and decisions;
7. Making policies and decisions;
8. Increasing his professional competence;
9. Delegating authority and responsibility;
10. Gaining the confidence and support of staff members;
11. Working with higher administration.

In 1953 Sternloff submitted a dissertation to the University of Wisconsin which dealt with the critical requirements for school administrators. School administrators and board members in the state of Wisconsin contributed 811 critical incidents from which 1076 specific behaviors were isolated. The critical incidents were classified according to a job-oriented frame of reference revealing five major

\[42\]

areas of administrative responsibility ranked in the following order:

1. Administration and organization of instruction and pupil services;
2. Administration of staff personnel;
3. Managing the fiscal and business aspects of the school system;
4. Directing school-community relationships and business aspects of the school system;
5. Administrator-school board relationships.

One hundred and twenty-eight job-oriented critical requirements for school administrators were formulated within these five major areas.

In 1955 at the University of Wisconsin, Schwein submitted a companion dissertation to that of Sternlof. For this study teachers, assistant superintendents, principals, and supervisors from high school districts in Wisconsin supplied critical incidents involving the behavior of school administrators. The critical incidents were classified according to a job-oriented frame of reference revealing five major areas of administrative responsibility.

In the field of Business Education, there appear to be three previous dissertations which have utilized the

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In 1954 Lockwood submitted a study to the University of Pittsburgh in which she sought to determine whether Certified Professional Secretaries are really superior to average secretaries. Lockwood was in no way concerned with determining critical requirements for either Certified Professional Secretaries or other types of secretaries. She did, however, use the critical-incident technique to obtain work samples from secretaries in the two groups studied, for purposes of comparison.

In 1957 Kessel submitted a study to the University of Wisconsin which dealt with the critical requirements for secondary school business teachers in general. One hundred and ninety-six critical incidents were collected by personal interview with fifty secondary school business teachers and fifty school administrators selected at random from an area within a fifty-mile radius of Madison, Wisconsin. Seventeen critical requirements were determined.


The effective secondary school business teacher:

1. Assumes the leadership in initiating and justifying recommendations for new areas of study in business education;

2. Adjusts the emphasis and content of existing courses in the light of total business program objectives;

3. Devises methods of dealing with varying abilities and interests of students;

4. Experiments with new teaching methods and techniques;

5. Makes frequent appraisals of total class progress toward class goals;

6. Assumes responsibility for the academic and vocational guidance of students taking business subjects;

7. Takes a personal interest in students who are having difficulty in keeping up with class work and gives these students individual help and encouragement;

8. Takes a personal interest in students having problems of a personal nature and gives these students help and encouragement;

9. Retains composure in dealing with discipline problems;

10. Employs disciplinary measures that encourage the rehabilitation of problem students;

11. Takes immediate action on discipline problems;

12. Willingly accepts extra-class assignments;

13. Provides for adequate supervision of the extra-class assignments for which responsibility has been assigned;
14. Demonstrates personal support of the school program of extra-class activities by attending extra-class functions;

15. Cooperates in helping to promote a harmonious working relationship among the teaching staff;

16. Maintains a cooperative attitude in personal and professional dealings with school administrators;

17. Demonstrates a personal pattern of behavior in the community that encourages favorable public opinion of the business education program and the school generally.

The third dissertation was submitted to the University of Wisconsin by Kosy in 1959. It dealt with the critical requirements for private secretaries. Critical incidents were collected from private secretaries and executives in manufacturing firms located in Seattle, Washington, and critical requirements for the successful private secretary were developed from the critical secretarial behaviors contained in the critical incidents.

V. Summary

In summary, the present study seeks to contribute to the field of business education by analyzing the classroom behavior of certain teachers of typewriting. The method of research used in the study is known as the critical-

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Incident technique.

Although the critical-incident technique apparently had its beginnings in the studies of Sir Francis Galton some seventy-five years ago, it can best be regarded as an outgrowth of several studies conducted by the Aviation Psychology Program during World War II. The Aviation Psychology Program used the basic idea of the critical-incident technique to study reasons for the elimination of cadets from pilot-training schools, the reasons for bombing mission failures, the problem of combat leadership, the pilot problems of vertigo while flying, and take off, landing, using controls, combined with using and flying on instruments.

From 1947 to 1949 the American Institute for Research, manned by a group of psychologists who had participated in the studies conducted by the Aviation Psychology Program, used the critical-incident technique to determine the basic requirements for United States Air Force Officers, commercial airline pilots, research personnel in the physical sciences, air traffic controllers, and the hourly-wage employees in the Delco-Remy Division of the General Motors Corporation.

At the University of Pittsburgh, the critical-incident technique has been used several times as the research method for master's theses and doctoral dissertations in psychology. In these studies, critical requirements have been developed for dentists, foremen, bookkeepers, air
route traffic controllers, life insurance agency heads, instructors of general psychology courses, and retail sales personnel. In three of these psychological studies, the critical-incident technique was used to study parent attitudes on child management before and after training, conference behavior; as well as in the construction of a rating scale for evaluating medical students.

In the field of educational research, early studies by Buellesfield, Charters, Morrison, and Hart illustrate the fact that the basic idea of the critical-incident technique was in use long before the method was formalized. Apparently, the first application _per se_ of the critical-incident technique in the field of educational research was as a portion of the Teacher Characteristics Study. This project was concerned with determining critical requirements for school teachers. The other educational studies appear to be all doctoral dissertations. At the University of Indiana critical requirements for school board members were studied, as well as those of high school principals, at Columbia University. At the University of Wisconsin, the critical-incident technique has been applied twice in an effort to determine critical requirements of school administrators.

The field of Business Education has been represented by three dissertations utilizing the critical-incident
technique. The first was a study comparing Certified Professional Secretaries with non-certified secretaries, submitted to the University of Pittsburgh. The other two were submitted to the University of Wisconsin; critical requirements for business teachers and private secretaries were determined.
CHAPTER II

THE PILOT STUDY

I. Introduction

In the past, Lockwood, Kessel, and Kosy have utilized the critical-incident technique to study various aspects of the business education field. The dissertations by these individuals deal respectively with Certified Professional Secretaries, the on-the-job behavior of business teachers in general, and private secretaries. The present dissertation, which seems to be the fourth application of the critical-incident technique to some aspect of the business education field, is closely related to those by Kessel and Kosy.

The studies by Kessel and Kosy utilized the personal interview as the technique for gathering reports of critical incidents. Both of these studies were of limited geographical scope, Kessel's being confined to the Madison, Wisconsin area and Kosy's to the Seattle, Washington area. Since a state-wide scope was planned for the present study, the

47 Lockwood, op. cit.
48 Kessel, op. cit.
49 Kosy, op. cit.
personal interview method of data collection seemed impractical.

A review of previous critical-incident-technique studies revealed that questionnaires had been successfully used in several instances. Regarding the use of questionnaires, Flanagan reports:

... there are, of course, all types of combinations of procedures that can be used. The one that is most different from those discussed is the mailed questionnaire. In situations where the observers are motivated to read the instructions carefully and answer conscientiously, this technique seems to give results which are not essentially different from those obtained by the interview method ... 

II. The Pilot Study

To test the feasibility of using a questionnaire for the present study, a limited pilot study was devised. Two important questions immediately were posed:

1. What should be the characteristics of the questionnaire?
2. To whom should the questionnaire be sent?

Further analysis of the previous critical-incident-technique studies which utilized questionnaires seemed to reveal that the type of questionnaire used by the Teacher Characteristics Study might be adapted for the pilot study.

51Jensen, op. cit.
Therefore, the questions for the pilot study, and the criteria set up for judging usable and unusable incidents were devised in a fashion similar to those used by the Teacher Characteristics Study.

Because of their frequent contact with typewriting teachers and typewriting classrooms, it seemed obvious that three groups of observers should logically be included in the pilot study: high school typewriting teachers themselves, high school administrators, and high school typewriting students. A fourth group, professional secretaries, was also included on the premise that having studied typewriting at some point in their preparation perhaps they could recall specific behaviors performed by their typewriting teachers which would be worthy of inclusion in the present study.

The questionnaires for the pilot study consisted of mimeographed booklets. A different booklet was designed for each group which was asked to participate. The differences among the booklets consisted of questions especially designed for the type of person to whom the booklet was to be sent. Each booklet consisted of an introduction explaining the purpose of the questionnaire, a page of general instructions, separate pages for each of the two questions, and a comments page.

52 See Appendix B.
Each teacher was asked to reply to a recall question regarding his own high school typewriting teacher, and to a self-analysis question regarding one of his present typewriting classes.

1. Recall

If you took typewriting in high school, please think back about the teacher who taught you the subject. If you had more than one typewriting teacher, arbitrarily choose the one you remember the best. Please try to remember the details of some one thing which your typewriting teacher did which, in the light of what you now know as an experienced typewriting teacher, you regard as having been a particularly effective or a particularly ineffective thing for a typewriting teacher to do. (Substitute the words "good" for "effective" and "poor" for "ineffective," if you wish.)

Now, on the next page, please describe in detail the specific incident that you have recalled to mind.

2. Self-Analysis

Now please think back over your own typewriting classes of this past year and describe something you did on one occasion which stands out in your mind as having been particularly effective or ineffective. In writing this description, please go into detail.

Each administrator was asked to reply to two questions regarding his observations of typewriting teachers during the school year then in process.

1. Effective

Think back over the past school year and recall one specific instance when you observed a typewriting teacher do something especially effective, that is, something which you thought was a very
good and appropriate thing for a typewriting teacher to do. The incident that you recall need not have been done by an especially effective teacher.

Now, on the next page, please describe in detail the specific incident that you have recalled to mind.

2. Ineffective

Think back over this past school year and recall one specific instance when you observed a typewriting teacher do something especially ineffective, that is, something you thought was poor or inappropriate for a typewriting teacher to do. The incident that you recall need not have been done by a generally ineffective teacher.

Now, please describe in detail the specific incident you have recalled to mind.

Each high school student was asked to reply to two questions regarding his present typewriting teacher.

1. Effective

Please think back about the typewriting class that you have been enrolled in this past school year. Concentrate specifically on the different things which your typewriting teacher has done which have impressed you as being particularly good and particularly poor for a typewriting teacher to do.

Now please choose one thing that he or she did which you think was particularly good and describe it on the next page.

2. Ineffective

Now, please describe something which your typewriting teacher did this year that impressed you as being particularly poor for a typewriting teacher to do.
Each secretary was asked to reply to two recall questions regarding a teacher who taught her typewriting in high school.

1. **Effective**

   If you took typewriting in high school, please think back about the teacher who taught you the subject. If you had more than one typewriting teacher, arbitrarily choose the one you remember best. Please try to remember the details of some one thing which your typewriting teacher did which you remember as having been a particularly effective thing for a typewriting teacher to do. (Substitute the word "good" for "effective," if you wish.)

   Now, on the next page, please describe in detail, the specific incident that you have recalled to mind.

2. **Ineffective**

   Now, please try to recall the details of some one thing which your typewriting teacher did which you remember as being a particularly ineffective thing for a typewriting teacher to do. (Substitute the word "poor" for "ineffective," if you wish.)

   Please describe in detail the specific incident that you have recalled to mind.

In the introduction to each booklet were listed the five criteria which had been arbitrarily set up for judging usable and unusable replies:

1. Each description had to describe something specific which a typewriting teacher did.

2. What the typewriting teacher did had to have some direct relationship to that teacher's capacity as a typewriting teacher.

3. Each description had to tell when or where the teacher's action took place.
4. Each description had to describe the obvious intent of the teacher's behavior.

5. Each description had to tell about the results that occurred because of whatever it was that the typewriting teacher did.

A total of twenty-six questionnaires were distributed for the pilot study. Twenty-four were sent through the mail to persons in the Tucson area. These included six high school teachers of typewriting, six high school principals, six students, and six secretaries. The teachers and principals were chosen arbitrarily because of the writer's acquaintance with them. One student questionnaire was included with each principal's questionnaire with the request that it be distributed to a responsible student currently enrolled in a typewriting class. The secretaries included the first six names on the membership roster of the Tucson chapter of the National Secretaries Association. In addition, two questionnaires were personally distributed to two University of Arizona senior students who were doing student teaching in typewriting at the time.

A 96.15 per cent return was obtained for the pilot study. That is, twenty-five of the twenty-six questionnaires were returned. However, this desirable percentage was not secured without additional effort on the part of the writer. The questionnaires were distributed on January 26, 1960. After a period of two weeks, by February 9, 1960,
approximately fifty per cent of the questionnaires had been returned. At that time the writer called by telephone all persons who had not yet returned their questionnaires, urging their cooperation. During the next two weeks the percentage of returns increased to eighty-eight. One month after the date of distribution, February 26, 1960, a second telephone call was made to the one principal and the two secretaries who had not yet responded. Very shortly the questionnaires from the two secretaries were received, but the principal failed to reply. Table I presents a breakdown of the questionnaires sent out and returned for the pilot study.

The purpose of the pilot study was to determine the feasibility of adapting the critical-incident technique for use in studying the classroom behavior of teachers of typewriting by the questionnaire method. Therefore, no effort was made to develop categories from the incidents reported. The incidents were, however, analyzed for content to see how well each observer had apparently understood both the questions and the criteria for usable incidents.

Judging from the critical incidents described in the pilot study questionnaires, which ranged from short, terse statements to long, involved descriptions, it would seem that the recipients had little or no trouble understanding either of the questions. In the comments sections no mention was made concerning the questions.
### Table I

**Numbers and Percentages of Questionnaires Sent Out and Returned for the Pilot Study**

<table>
<thead>
<tr>
<th>Observers</th>
<th>Number of Questionnaires Sent Out</th>
<th>Percentage of Total Questionnaires Sent Out</th>
<th>Number of Questionnaires Returned</th>
<th>Percentage of Total Questionnaires Sent Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>6</td>
<td>23.08</td>
<td>6</td>
<td>23.08</td>
</tr>
<tr>
<td>Student-Teachers</td>
<td>2</td>
<td>7.68*</td>
<td>2</td>
<td>7.68*</td>
</tr>
<tr>
<td>Students</td>
<td>6</td>
<td>23.08</td>
<td>6</td>
<td>23.08</td>
</tr>
<tr>
<td>Principals</td>
<td>6</td>
<td>23.08</td>
<td>5</td>
<td>19.23</td>
</tr>
<tr>
<td>Secretaries</td>
<td>6</td>
<td>23.08</td>
<td>6</td>
<td>23.08</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>26</strong></td>
<td><strong>100.00</strong></td>
<td><strong>25</strong></td>
<td><strong>96.15</strong></td>
</tr>
</tbody>
</table>

Every person who returned the questionnaire answered at least one of the two questions. Three secretaries, one administrator, and one teacher left one question blank.

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53 The figures shown in all tables in this study were derived using a rotary calculator. Each figure was carried to three decimal places and rounded to two, using the official rules for rounding given in *Practical Business Statistics*, by Croxton and Cowden, (New York: Prentice-Hall, Inc., 1948), second edition, p. 503. In a few instances, in order to effect exact 100.00 per cent totals for certain columns of figures, it was necessary to arbitrarily increase or decrease a figure by a few hundredths. In no instance was such an alteration greater than .05, and each figure altered in this fashion is marked with an asterisk.
A total of 45 critical incidents were submitted. Thirty-eight (84.44 per cent) were found to be usable in that elements pertaining to the five criteria were obvious. Seven (15.56 per cent) incidents failed to include one or more of the criterial elements, and were classified as unusable. Of the thirty-eight usable incidents reported, twenty (52.63 per cent) were effective incidents and eighteen (47.37 per cent) were ineffective incidents. Tables II and III present breakdowns of the critical incidents submitted for the pilot study.

**TABLE II**

THE USABLE AND UNUSABLE CRITICAL INCIDENTS REPORTED IN THE PILOT STUDY

<table>
<thead>
<tr>
<th>Observers</th>
<th>Number of Incidents Reported</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Usable</td>
<td>Unusable</td>
<td>Totals</td>
<td></td>
</tr>
<tr>
<td>Teachers</td>
<td>10</td>
<td>1</td>
<td>11 (24.44%)</td>
<td></td>
</tr>
<tr>
<td>Student-Teachers</td>
<td>4</td>
<td>0</td>
<td>4 (8.89%)</td>
<td></td>
</tr>
<tr>
<td>Principals</td>
<td>7</td>
<td>2</td>
<td>9 (20.00%)</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>8</td>
<td>4</td>
<td>12 (26.67%)</td>
<td></td>
</tr>
<tr>
<td>Secretaries</td>
<td>9</td>
<td>0</td>
<td>9 (20.00%)</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>38</td>
<td>7</td>
<td>45 (100.00%)</td>
<td></td>
</tr>
</tbody>
</table>
TABLE III
THE USABLE EFFECTIVE AND INEFFECTIVE CRITICAL INCIDENTS REPORTED IN THE PILOT STUDY

<table>
<thead>
<tr>
<th>Observers</th>
<th>Number of Usable Incidents Reported</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Effective</td>
<td>Ineffective</td>
</tr>
<tr>
<td>Teachers</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Student-Teachers</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Principals</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Students</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Secretaries</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>20</td>
<td>18</td>
</tr>
</tbody>
</table>

The conclusions reached as a result of the pilot study were:

1. In light of the ninety-six per cent return of the questionnaires, it seemed feasible to use a mailed questionnaire for the present study.

2. Since eighty-four per cent of the critical incidents reported were usable, it appeared that the observers had read the instructions carefully and had answered conscientiously.
3. The five groups of observers, i.e., teachers, students, administrators, and secretaries, seemed willing to contribute to the present study. The four per cent that failed to reply represented only one principal.

4. Judging from the analysis of the incidents reported, the questions in the questionnaire were clearly understood.

5. Judging from the analysis of the incidents reported, and from the comments made in the comments sections of the questionnaires, the criteria which had to be met for an incident to be classified as usable were too numerous and seemed to overlap. This seemed to indicate to the writer that the criteria should be reduced in number and simplified in form.

III. Summary

The present study appears to be the fourth application of the critical-incident technique to some aspect of the business education field. Previous studies were completed by Lockwood, Kessel, and Kosy.

The present study is limited to the determining of critical requirements for teachers of typewriting. Since a state-wide geographical scope was planned, the personal
interview method used by Kessel and Kosy seemed impractical. Therefore a limited pilot study was set up to test the feasibility of using a mailed questionnaire.

The questions for the pilot study questionnaire and the criteria set up for judging usable and unusable incidents were devised in a fashion similar to those used by the Teacher Characteristics Study. Questionnaires were mailed to high school typewriting teachers, high school principals, high school typewriting students, and professional secretaries. In addition, questionnaires were personally distributed to two University of Arizona senior students who were doing student teaching in typewriting.

Twenty-six questionnaires were distributed and twenty-five were returned to make a ninety-six per cent return. A total of forty-five incidents were reported. Thirty-eight of them, or 84.44 per cent, were found to meet the five criteria set up for judging incidents usable or unusable.

In light of the high percentage of returns and usable incidents, it seemed feasible to use a mailed questionnaire for the present study. The five groups of observers contacted in the pilot study seemed willing to contribute and seemed to understand clearly the questions in the questionnaire. However, judging from the analysis of the incidents reported, and from the comments made in the comments sections
of the questionnaires, the criteria for judging incidents usable or unusable seemed to be too numerous and seemed to overlap.
CHAPTER III

THE PRESENT STUDY

I. Revision of the Questionnaires

The results of the pilot study seemed to indicate that it would be feasible to use mailed questionnaires to collect critical incidents performed by typewriting teachers. Therefore, it was decided to proceed with the present study and to obtain reports of critical incidents in that fashion. The first step in carrying out the present study was to revise the questionnaires.

The pilot study seemed to indicate that the questions in the questionnaires were fairly well understood by the observers. However, each question was re-analyzed and re-edited. After further consideration, the writer felt an effort should be made to make the questions designed for the different groups of observers generally more consistent with each other. This was accomplished by changing only the questions designed for the typewriting teachers. The pilot study asked for one incident, either effective or ineffective, which each teacher remembered about his own teacher. For the second question, each typewriting teacher was given the
option of describing one incident, effective or ineffective, which occurred recently in his own typewriting classroom. The present study eliminated both the recall question and the option by requesting a description of an effective incident from the teacher's own classroom for the first question, and, similarly, an ineffective incident for the second.

The teachers were asked to reply to the following questions:

1. On this page write the description of one exceptionally good and/or appropriate thing which you did this year in your typewriting class or classes. Please say something definite concerning each of the three points (criteria) listed in the general directions on page 1.

2. On this page write the description of one poor and/or inappropriate thing which you did in your typewriting class or classes this year. Again, please say something definite concerning each of the three points (criteria) listed in the general directions on page 1.

The high school administrators were asked to reply to the following questions:

1. On this page write the description of one exceptionally good and/or appropriate thing which you observed a typewriting teacher do. Please say something definite concerning each of the three points (criteria) listed in the general directions on page 1.

2. On this page write the description of one poor and/or inappropriate thing which you observed a typewriting teacher do. Again, please say something definite concerning each of the three points (criteria) listed in the general directions on page 1.
The students were asked to reply to the following questions:

1. On this page write the description of one exceptionally good and/or appropriate thing which you observed your typewriting teacher do. Please say something definite concerning each of the three points (criteria) listed in the general directions on page 1.

2. On this page write the description of one poor and/or inappropriate thing which you observed your typewriting teacher do. Again, please say something definite concerning each of the three points (criteria) listed in the general directions on page 1.

The secretaries were asked to reply to the following questions:

1. On this page write the description of one exceptionally good and/or appropriate thing which you observed your typewriting teacher do. Please say something definite concerning each of the three points (criteria) listed in the general directions on page 1.

2. On this page write the description of one poor and/or inappropriate thing which you observed your typewriting teacher do. Again, please say something definite concerning each of the three points (criteria) listed in the general directions on page 1.

For the present study, the criteria for usable incidents were reduced from five to three. Statements written in the comments sections of the pilot study questionnaires revealed confusion in the minds of several of the observers regarding the original five criteria. Also, the analysis of the reported incidents seemed to indicate that
there was serious overlapping of those criteria. The three criteria for judging usable and unusable incidents which were retained for the present study were:

1. Each description should describe something definite that a typewriting teacher did in the classroom, while teaching typewriting.
2. Each description should describe the general intent of the teacher's behavior.
3. Each description should tell about the results that occurred because of what the typewriting teacher did.

The questionnaires for the present study consisted of commercially printed brochures, each consisting of four pages:

Page one: the general directions including an explanation of the criteria to be used in judging replies as usable or unusable;

Page two: question one;

Page three: question two;

Page four: blanks asking for incidental information regarding the sex of the teacher or teachers involved in the incidents described, sex and year of typewriting enrollment for students, and type of school in which the secretaries studied typewriting.

II. The Observers for the Present Study

After the problems relative to the construction of

54 See Appendix C.
the questionnaires were solved, attention was given to the
groups of observers to be used for the present study. Five
different types of observers were used in the pilot study—
high school typewriting teachers, high school student type-
writing teachers, high school principals, high school students
enrolled in typewriting classes, and professional secretaries.
Each of these types of observers seemed willing to contri-
bute to the present study; however, two changes were made
for the sake of practicality. First, because of their
scarcity, high school student typewriting teachers were with-
drawn from the list; and second, the term high school
principals was changed to high school administrators since
the writer had decided to use the mailing list of public
high school administrators in charge obtained from the High
School Visitor's Office at the University of Arizona. From
the beginning a state-wide geographical scope had been
planned.

An examination of the 1959-60 edition of the
Arizona Educational Directory revealed that there were 262
business education teachers listed for the public high
schools in the State of Arizona at that time. That number
was reduced to 256 when the six teachers who participated
in the pilot study were eliminated. There seemed to be no
readily available way to tell which of those business
education teachers were teaching typewriting and which were not. Therefore, at this point a decision was made to mail the questionnaire to teachers listed in the directory as business education teachers, asking each to fill it in only if he was currently teaching typewriting.

An examination of the mailing list of public high school administrators in charge revealed that there were 91 public high school administrators in charge in the State of Arizona at that time. The number reduced to 81 when the administrators of the four two-year high schools were eliminated from the list along with the six administrators who had participated in the pilot study.

The method used in the pilot study to distribute questionnaires to high school students had proved successful. It consisted of including a student questionnaire with each questionnaire mailed to a principal, with the request that he in turn give it to a responsible student currently enrolled in a typewriting class. This method of distribution was retained for the present study. However, instead of only one student questionnaire being included with each administrator's questionnaire, for the present study two were included. Although the sex of the individual observers was considered unimportant in the present study, each administrator was requested to give one questionnaire to a male student and the other to a female student in order to obtain
more of a cross section. Both students were to be currently enrolled in a typewriting class. This made 162 students available to participate in the present study.

For the pilot study, the first six names on the membership roster of the Tucson Chapter of the National Secretaries Association had been used for the professional secretaries. Investigation revealed that there were three such chapters in the State of Arizona: San Xavier Chapter in Tucson with a membership of 15, Valley of the Sun Chapter in Phoenix with a membership of 77, and the Ponderosa Chapter in Flagstaff with a membership of 22. Total membership in the three chapters was 114, which was reduced to 108 when the 6 members who participated in the pilot study were eliminated.

The 256 teachers, 81 administrators, 162 students, and 108 secretaries made a total of 607 persons available for the present study. It would have been possible to obtain a maximum total of 1214 incidents, since each person was being asked to contribute two critical incidents. That number of incidents seemed much too large to be handled adequately in the present study, and a decision was made to use approximately fifty per cent of each group, i.e., 128 teachers, 41 administrators, 82 students, and 56 professional secretaries, making a total of 307 persons. It was thus
made possible to receive a maximum total of 614 incidents, a much more manageable number for a single person.

The choosing of the members from each group, except the students, to participate in the present study was accomplished by a random-numbers method. For example, the name and high school address of each business education teacher was written on a separate 3 by 5 note card. Those cards were then numbered consecutively from 1 to 256. Using an appropriate section of a table of random numbers, one person called out random numbers while a second withdrew the card with that number until 128 such cards had been withdrawn from the original stack. The teachers' names appearing on the 128 cards thus obtained were the ones to whom questionnaires were mailed. The remaining cards, being of no further use or significance, were discarded. This same process was used with the groups of administrators and secretaries.

III. The Mailing Schedule

The questionnaires were mailed on April 4, 1960. The questionnaires intended for teachers, administrators, and secretaries were mailed directly to those observers. However, the questionnaires intended for the high school

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students were handled in a different manner. Two student questionnaires were included with each administrator's questionnaire. Each administrator was requested, in the covering letter, to give one of the student questionnaires to a male student and the other to a female student, both of whom were to be currently enrolled in a typewriting class.

The first mailing consisted of the questionnaires, a personal-type letter addressed to the recipient of the questionnaire (with the exception of the students) urging his cooperation and prompt response, a stamped and addressed envelope for returning the questionnaire, and an addressed postal card which the recipient was to return if he wanted to receive a brief report of the final results of the study.

Two weeks later on April 17, 1960, a follow-up letter was mailed to each of the teachers, administrators, and secretaries who had not yet returned their questionnaires. On May 4, 1960, one month after the date of the original mailing, a second questionnaire was sent to each teacher, secretary, and administrator (including additional student questionnaires when necessary) who had not yet returned the original questionnaires.

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56 See Appendix F.
IV. The Returns

Questionnaires were sent directly to the 225 persons included in the present study. Since each of the 41 high school administrators was sent two student questionnaires to distribute, a total of 82 questionnaires were sent indirectly to persons included in the present study. This last figure is computed on the assumption, of course, that the administrators actually distributed the student questionnaires they received.

Therefore, 307 persons were included in the present study, either directly or indirectly. Replies were received from 250, (81.44 per cent). The replies were received over a period of nine weeks from the date of the original mailing of the questionnaire. Table IV shows the weekly breakdown of replies, and Table V presents a breakdown of the questionnaires sent out and returned.
## TABLE IV

THE WEEKLY BREAKDOWN OF REPLIES RECEIVED FOR THE PRESENT STUDY

<table>
<thead>
<tr>
<th>Week</th>
<th>Teachers</th>
<th>Administrators</th>
<th>Students</th>
<th>Secretaries</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>35</td>
<td>4</td>
<td>10</td>
<td>15</td>
<td>64</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td>3</td>
<td>21</td>
<td>6</td>
<td>11</td>
<td>3</td>
<td>41</td>
</tr>
<tr>
<td>4</td>
<td>18</td>
<td>10</td>
<td>15</td>
<td>4</td>
<td>47</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>6</td>
<td>9</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>13</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>110</strong></td>
<td><strong>31</strong></td>
<td><strong>57</strong></td>
<td><strong>52</strong></td>
<td><strong>250</strong></td>
</tr>
<tr>
<td>Observers</td>
<td>Number of Questionnaires Sent Out</td>
<td>Percentage of Total Questionnaires Sent Out</td>
<td>Number of Questionnaires Returned</td>
<td>Percentage of Total Questionnaires Returned</td>
<td>Percentage of Total Questionnaires Sent Out</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------------------</td>
<td>-------------------------------------------</td>
<td>----------------------------------</td>
<td>-------------------------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Teachers</td>
<td>128</td>
<td>41.69</td>
<td>110</td>
<td>44.00</td>
<td>35.83</td>
</tr>
<tr>
<td>Administrators</td>
<td>41</td>
<td>13.36</td>
<td>31</td>
<td>12.40</td>
<td>10.10</td>
</tr>
<tr>
<td>Students</td>
<td>82</td>
<td>26.71</td>
<td>57</td>
<td>22.80</td>
<td>18.57</td>
</tr>
<tr>
<td>Secretaries</td>
<td>56</td>
<td>18.24</td>
<td>52</td>
<td>20.80</td>
<td>16.94</td>
</tr>
<tr>
<td>Totals</td>
<td>307</td>
<td>100.00</td>
<td>250</td>
<td>100.00</td>
<td>81.44</td>
</tr>
</tbody>
</table>
The 110 replies received from high school teachers of typewriting were received over a period of nine weeks. The questionnaires designed for such teachers contained a square which could be checked if the recipient either was not currently teaching typewriting or had never done so. Forty-two (38.18 per cent) of the teachers checked that square and returned their questionnaires blank.

The 31 replies received from high school administrators were received over a period of eight weeks. Twenty-three (74.19 per cent) returned their questionnaires completed, and eight (25.81 per cent) returned theirs blank. It appeared that those administrators who returned blank questionnaires did not want to participate in the present study.

The 57 replies received from high school students enrolled in typewriting courses were received over a period of eight weeks. Eight (14.04 per cent) of the student questionnaires were returned blank, and it appeared to the writer that they had been returned by the administrators to whom they were originally sent and probably never had been distributed to students.

The 52 replies received from professional secretaries were received over a period of nine weeks. Twenty-four (46.15 per cent) returned completed questionnaires, and twenty-eight (53.85 per cent) returned blank questionnaires. All except one of the secretaries who returned blank questionnaires
wrote in the comments sections that they had studied typewriting so long ago they could no longer remember any incidents worth mentioning.

Table VI presents a breakdown of the number of replies received from high school teachers of typewriting, high school administrators, high school students, and professional secretaries. (The term "completed questionnaire," as used in the tables in this study, may be defined as a returned questionnaire containing a report of at least one critical incident.)

<table>
<thead>
<tr>
<th>Observers</th>
<th>Completed Questionnaires</th>
<th>Blank Questionnaires</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>68</td>
<td>42</td>
<td>110</td>
</tr>
<tr>
<td>Administrators</td>
<td>23</td>
<td>8</td>
<td>31</td>
</tr>
<tr>
<td>Students</td>
<td>49</td>
<td>8</td>
<td>57</td>
</tr>
<tr>
<td>Secretaries</td>
<td>24</td>
<td>28</td>
<td>52</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>164 (65.60%)</strong></td>
<td><strong>86 (34.40%)</strong></td>
<td><strong>250 (100.00%)</strong></td>
</tr>
</tbody>
</table>

V. Preparation of the Data

As each reply was received, each critical incident contained therein was transcribed onto a separate sheet of
plain notebook paper and appropriately coded. All critical incidents were coded with two-item codes. For example, an incident coded T-I meant that that critical incident was reported by a teacher and that it was labeled ineffective by the teacher reporting it. An incident coded S-E meant that the critical incident was reported by a student and was labeled effective by that student. An incident coded A-I meant that that critical incident was submitted by an administrator and was labeled ineffective by that administrator. And, an incident coded SC-E meant that that critical incident was submitted by a professional secretary who had labeled it effective, etc.

After it became obvious that no additional replies would be received, the preparation and study of the data furnished was begun. The first step in the preparation consisted of examining each critical incident to see whether or not it contained information relative to the three criteria which had been set up for usable incidents. That is, any critical incident was considered unusable which did not describe (1) something definite that a typewriting teacher did in the classroom while teaching typewriting, (2) the general intent of that teacher's behavior, and (3) the results that occurred because of what that typewriting teacher did. Three hundred and twelve critical incidents were received.
Eighteen (5.77 per cent) of them were found to be unusable, leaving a total of 294 (94.23 per cent) usable critical incidents. Table VII shows a numerical breakdown of all the critical incidents submitted, and Table VIII presents a breakdown of the number of usable critical incidents.

TABLE VII

BREAKDOWN OF THE USABLE AND UNUSABLE CRITICAL INCIDENTS SUBMITTED FOR THE PRESENT STUDY

<table>
<thead>
<tr>
<th>Observers</th>
<th>Usable Incidents</th>
<th>Unusable Incidents</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>121</td>
<td>8</td>
<td>129 (41.35%)</td>
</tr>
<tr>
<td>Administrators</td>
<td>41</td>
<td>4</td>
<td>45 (14.42%)</td>
</tr>
<tr>
<td>Students</td>
<td>93</td>
<td>4</td>
<td>97 (31.09%)</td>
</tr>
<tr>
<td>Secretaries</td>
<td>39</td>
<td>2</td>
<td>41 (13.14%)</td>
</tr>
</tbody>
</table>

| Totals         | 294 (94.23%)     | 18 (5.77%)         | 312 (100.00%) |

### TABLE VIII

**NUMBERS AND PERCENTAGES OF THE USABLE INCIDENTS SUBMITTED FOR THE PRESENT STUDY**

<table>
<thead>
<tr>
<th>Observers</th>
<th>Number of Usable Incidents</th>
<th>Effective</th>
<th>Ineffective</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td></td>
<td>73</td>
<td>48</td>
<td>121 (41.16%)</td>
</tr>
<tr>
<td>Administrators</td>
<td></td>
<td>24</td>
<td>17</td>
<td>41 (13.95%)</td>
</tr>
<tr>
<td>Students</td>
<td></td>
<td>53</td>
<td>40</td>
<td>93 (31.63%)</td>
</tr>
<tr>
<td>Secretaries</td>
<td></td>
<td>20</td>
<td>19</td>
<td>39 (13.26%)</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td><strong>170</strong></td>
<td><strong>124</strong></td>
<td><strong>294 (100.00%)</strong></td>
</tr>
</tbody>
</table>

(57.82%) (42.18%)

The following incident, coded S-I and broken down into the three criterial parts, is an example of a usable incident:

1. **The specific thing done**:

   The typing teacher had the habit of arguing about religion. One day she argued very vehemently with a group of three or four students, violently attacking their religious beliefs.

2. **The general objective**:

   Her objective was to run down their beliefs.

3. **The results that occurred**:

   As a result another teacher was compelled to come in and quiet her down.

   Another incident, coded A-I, serves as an example of an unusable incident. By stretching the imagination somewhat
criterion number one (description of something definite that a typewriting teacher did in the classroom) is implied in the information, but the other two criteria are missing entirely.

In regard to the correction of the students, this teacher is perhaps a little too severe with the Indian students. This might be due in part to the fact that this is only the second year for this teacher in the teaching field.

After all the incidents had been analyzed for usability, the editing of each incident was begun. It was necessary to edit the incidents because a number of them in their original forms were quite wordy and rambling, making it difficult to tell exactly what was being reported. The editing included re-writing each incident into the past tense using only the third person in order to have complete uniformity. Although the majority of the incidents were fairly short to begin with, there were a number which were exceedingly long. The longer incidents were shortened to no more than 120 words. In each case an effort was made to retain as much of the original wording as possible, although spelling and punctuation errors were corrected.

As they were edited, the incidents submitted by teachers were retyped on white paper, those submitted by students on yellow paper, those received from administrators on green paper, and those sent in by secretaries on pink
The different colors of paper were used to aid in later analyses of the incidents.

The following incident, coded T-E, serves as an example of an incident before and after editing. In its original form this incident contains 315 words, and in its edited form it contains 118 words.

It's difficult to be specific because there were so many times I felt I had been ineffective, and knew why, and there were a few times I felt particularly successful—but nothing "stands out" in my mind—so I submit this incident which is more of an "ah-ha" type of thing.

One of my least successful students, but one who kept trying despite the fact that she was always near the bottom (she may not have realized it), had a line-spacing fault that worried me almost to the end of the semester. Every paper she submitted had the same error: three spaces when there should be two, or four when there should be two—something wrong in double spacing. I showed her many times how to do it—but the results never bore out her assurances. She was an "embarrassed shy" type and I did not want to discourage her, so did not push her too hard. Finally one day toward the end of the semester when she was still getting three spaces between paragraphs (most of the time, but not always), I asked her to show me how she did it, and we both made a grand discovery: She was simply 1. returning the carriage, and 2. double spacing after the return. When the situation in her typing was such that she thought 1. return, and 2. double space for paragraph, she did each separately and got a triple space. When the situation did not involve the two thoughts separately, she was all right.

The lesson I learned was that demonstration is just as effective in teaching the teacher as in teaching the class. If I had watched her more closely earlier in the game, she and I both would have rid ourselves of her problem much sooner.
Edited Form:

All semester the teacher worried over a girl who quite consistently turned in paper with three or four spaces between paragraphs rather than two. She talked with the student and demonstrated for her several times, but to no avail. Finally, she asked the girl to demonstrate for her and thus was able to discover what she was doing wrong and correct it. The general objective was to correct a line-spacing fault of an individual student. The teacher learned that demonstration is just as effective in teaching the teacher as in teaching the class. She felt that if she had watched the student more closely early in the game they both would have rid themselves of the problem much sooner.

After all of the 294 usable incidents had been edited by the writer, it was decided to have a qualified, uninterested party compare the original form of each incident with the edited form to see if they were consistent with each other. Mr. Richard Shelton, an instructor in the Department of English at the University of Arizona, was employed to make the comparisons. In a number of instances, Mr. Shelton questioned the writer's version. When such was the case, the incident was carefully re-examined by the writer. If the re-examination bore out Mr. Shelton's objection, the incident was re-edited accordingly. All of the usable incidents are presented in their edited forms in Appendix A.
VI. Summary

The first step in carrying out the present study was to revise the questionnaires which had been used in the pilot study. As a result of further study, the questions on the questionnaire designed for typewriting teachers were changed in order to make them consistent with the questions on the questionnaires designed for the other groups of observers. Also, the criteria for usable incidents were reduced from five to three. In their final forms, the questionnaires for the present study consisted of commercially printed brochures, each four pages long.

From the beginning, a state-wide geographical scope was planned for the present study. Questionnaires were mailed to approximately fifty per cent of the members in the two following state-wide groups: high school business education teachers and high school administrators. In addition, each high school administrator included in the present study was asked to distribute two student questionnaires. Questionnaires were also mailed to fifty per cent of the membership in the three state chapters of the National Secretaries Association.

A total of 307 persons were included in the present study. Replies were received from 250, or 81.44 per cent, over a period of nine weeks. One hundred ten replies were
received from high school business education teachers, 31 from high school administrators, 57 from high school students, and 52 from professional secretaries.

As each reply was received, its week of arrival was noted and each incident contained therein was transcribed onto a separate sheet of notebook paper. After it became obvious that no additional replies would be received, the preparation and study of the data was begun. This consisted of three steps:

1. Examining each critical incident to determine if it was usable or unusable;

2. Editing each usable critical incident;

3. Comparison of all edited critical incidents with their originals by a disinterested party, to check for inconsistency.

Three hundred and twelve critical incidents were submitted in the completed questionnaires received for the present study. Eighteen (5.77 per cent) were found to be unusable, leaving a total of 294 (94.23 per cent) usable critical incidents.
CHAPTER IV

THE FINDINGS

I. Comments Made by the Respondents

On the final page of the questionnaire a section labeled COMMENTS was provided.

Twenty-two (32.35 per cent) of the teachers who returned completed questionnaires wrote comments on their questionnaires. Eight of the comments stated favorable reactions to the questionnaire and the present study. Four comments were rebukes to the writer for stating that the data were to be kept strictly anonymous while the serial numbers on the questionnaires would lead one to believe otherwise. Three comments gave additional explanation regarding the critical incidents reported in the questionnaire. Two of the comments revealed that the recipients were puzzled by the questionnaire. Two comments were apologies for not returning the questionnaire sooner. One comment was an apology for not taking more time in filling out the questionnaire. One comment revealed the title and authors of the typewriting textbook which the teacher was using. And one teacher expressed doubt as to the value of the incidents he had reported.
Seven (30.43 per cent) of the administrators who returned completed questionnaires wrote comments. Three of the comments were compliments about the teachers who performed the critical incidents. Two of the comments pointed out weaknesses of the teachers who performed the critical incidents submitted. One comment concerned the difficulty involved in answering such a questionnaire. And one comment was a bit of philosophizing by the administrator.

Eighteen (36.73 per cent) of the students who returned completed questionnaires wrote comments. Twelve of them wrote compliments about their typewriting teachers. Two of them commented that they thought the present study to be worth while. Two wrote descriptions of their typewriting classes. One wrote that he enjoyed his typewriting class. And one wrote additional information about an incident which was reported in the body of the questionnaire.

Ten (41.67 per cent) of the secretaries who returned completed questionnaires wrote comments. Three of the comments revealed additional information about the teachers who performed the critical incidents submitted. Three of the comments revealed additional information about the secretaries who returned the questionnaires. Two comments were thank-you notes for being included in the present study. One comment was an apology for not returning the questionnaire.
sooner. And one comment was some philosophizing about "the good secretary."

II. Additional Information Regarding Observers and Teachers Observed Which was Indicated on the Questionnaires

The final page of each questionnaire provided space for the respondent to indicate his sex and the sex of each teacher who performed the incident or incidents reported in the questionnaire. In addition, students were asked to indicate which year of typewriting they were enrolled in, and professional secretaries were asked to indicate whether they had studied typewriting in a public high school, a private or parochial high school, or some other type of school.

With one exception, these items of information were not appropriate for inclusion in the body of the present study. The writer asked for them in the belief that they might prove useful should he desire to use the data collected for the present study as the basis for a future publication or publications.

The one item of appropriate interest was the type of schools where the professional secretaries studied typewriting. Twenty-two (91.67 per cent) of the 24 secretaries who returned completed questionnaires indicated that they
studied typewriting in a public high school. One (4.17 per cent) studied typewriting in a private school for girls and another (4.17 per cent) in a business college. Therefore, it seems safe to conclude that 310 (99.36 per cent) of the 312 critical incidents submitted as data for the present study were performed by public high school teachers of typewriting, and only two (.64 per cent) were performed by teachers other than public high school teachers of typewriting.

III. Types of Incidents Reported

The process of editing the incidents revealed that there were two types. Some incidents contained reports of single occurrences of a behavior at one specific time. Others contained reports of behavior in terms of a persistent behavioral pattern observed over a period of time.

The following incident, coded S-E, serves as an example of an incident reporting a single occurrence of a behavior at one specific time.

The teacher, at the beginning of the year, moved a boy to another seat because he was bothered by his seatmate's bell and kept returning his carriage at the wrong time. The objective was to help the student learn to listen for his own bell only. This helped the boy relax and he did better work from then on.
Another incident, coded A-I, serves as an example of an incident reporting a persistent behavioral pattern observed over a period of time.

The teacher "called" roll every day near the beginning of the typing period. Her objective was to keep accurate attendance records and to write the report which went to the office. As a result, both the teacher's and the students' time was wasted. A seating chart, with a glance or two about the classroom, would have sufficed without taking any of the students' time.

IV. Category and Sub-category Formulation

The first phase in the analysis of critical-incident data involves the development of a set of appropriate headings under which all the critical incidents can be classified. This process is called "category formulation."

The first step in the formulation of categories for the present study was to isolate the critical behaviors contained in the critical incidents. This was accomplished by carefully studying each incident and then abstracting the "critical behavior," that is, what the teacher actually did, onto a 3 by 5 note card. The following critical incident and its abstract serves as an example of the manner in which all of the critical incidents submitted for the present study were abstracted.
The teacher observed was very strict with her students, forbidding them to chew gum in class, talk while she was talking, sharpen erasers after class had started, and, above all, fool with their machines while she was talking or giving instructions. One time while she was giving instructions the bell on one of the students' typewriters rang. Immediately she stopped giving instructions and yelled at the student (calling out his name) who she thought had been fooling with his typewriter while she was talking. It just so happened it was not the student she yelled at who had been fooling with his typewriter. Her objective was to maintain order in the classroom at all times. Although she got the order and attention of the whole class, she caused much embarrassment for the innocent student at whom she had so rudely yelled.

**Abstract**

Teacher yelled at the wrong student for operating his typewriter while she was talking to the class.

After each of the 294 usable incidents had been studied and the critical behaviors abstracted, the next step in establishing categories was to examine carefully 100 (about one third) of the abstracts, placing those of similar behaviors into groups. The incidents were made up of twenty-five randomly selected incidents taken from the incidents submitted by each of the 4 groups of observers. The 100 incidents seemed to fall into three groups, which were assigned the following category titles:

I. Personal Traits and Habits of Typewriting Teachers;

II. Classroom Management by Typewriting Teachers;
III. Instructional Procedures Used by Typewriting Teachers.

The remaining 194 abstracts were then examined. It is worth noting that each of the remaining 194 abstracts was found to fall under one of the three category titles derived from the first 100 abstracts studied, and no need existed for additional category titles.

The categorization and classification system used in a critical-incident-technique study is at best highly subjective and difficult. This being the case, in an attempt to make sure that each abstract had been properly categorized, a thorough re-examination of all abstracts was made. This resulted in the shifting of a few abstracts from one category to another.

Following the assignment of each of the 294 usable critical incidents to one of the three categories, the incidents in each of the categories were again examined and grouped according to basic similarity of the behaviors. This process of re-examining and grouping incidents, and writing new descriptions, was continued until all incidents in each of the three categories were assigned to a sub-category.

Before the classification scheme for grouping incidents was considered final, two independent analysts were asked to classify thirty randomly drawn incidents according to the category titles developed by the writer. Mrs. Patience Wilson, a graduate student attending the University of Arizona, Tucson, Arizona, and Mr. Alfred Zammit
a business education teacher at Catalina High School, Tucson, Arizona, served as analysts for the consistency check. Both of these persons were recommended as analysts by Dr. Herbert J. Langen, Head of the Department of Secretarial Studies and Business Education at the University of Arizona.

An orientation meeting was held with the analysts in order to familiarize them with the critical-incident technique, the components of a critical incident, and the details of the classification system. A number of incidents were read, discussed, and classified by the writer to demonstrate the process involved in classifying an incident. Each of the analysts then classified several incidents as a practice run. When it was felt that a common understanding had been reached, each analyst was furnished with the incidents to be classified. Both of the analysts classified the same group of thirty randomly selected incidents, each working independently.

The results of the consistency check are shown in Table IX. Analyst No. 1 agreed with the writer on 29 of the 30 incidents classified, for a 96.67 per cent agreement. Analyst No. 2 agreed with the writer on 28 of the 30 incidents classified, for a 93.33 per cent agreement. In no case did both of the analysts disagree with the writer on the same incident. The agreement reached among the writer and the
two independent analysts was sufficiently high so as to encourage the writer to accept the classification scheme as adequate and final.

TABLE IX
CONSISTENCY CHECK BY INDEPENDENT ANALYSTS ON THE ASSIGNMENT OF THIRTY RANDOMLY DRAWN INCIDENTS TO THE THREE CATEGORIES ESTABLISHED FOR THE PRESENT STUDY

<table>
<thead>
<tr>
<th>Categories</th>
<th>Writer</th>
<th>Number of Incidents Assigned by Analyst No. 1</th>
<th>Analyst No. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>II</td>
<td>6</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>III</td>
<td>21</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

The following three incidents are those on whose category placement the writer and the two independent analysts did not agree. The first incident, coded S-E, was placed by the writer and Analyst No. Two under Category II: "Classroom Management by Typewriting Teachers"; Analyst No. One, however, placed it under Category III, "Instructional Procedures Used by Typewriting Teachers."

The teacher feels that being on time and settling down to work immediately with no "jabbering" after the bell rings are "musts" in typewriting. One day two girls near the window and two over near the blackboard were talking quite loudly after the bell rang. The teacher called the names of each
out above their noises and asked them to get in
the hall outside the classroom doorway. There was
quite a startled look on the face of each receiving
the reprimand. The object was to reprimand these
students for their poor behavior. After standing
in the hall for ten minutes where passing students
and teachers were asking them the "why's of their
being there," they were an extremely meek group on
their return, and thereafter.

The following incident, coded SC-I, was placed by
the writer and Analyst No. One under Category I, "Personal
Traits and Habits of Typewriting Teachers." Analyst No. Two,
however, placed it under Category III, "Instructional Pro-
cedures Used by Typewriting Teachers."

The teacher often gave long tirades about the
"girls of today" and their attire. Her objective
was to admonish the female students in her class.
There were a number of boys in the class and these
tirades did not interest them. Gradually, typing
did not interest them very much either.

The following incident, coded SC-3, was placed by
the writer and Analyst No. One under Category II, "Classroom
Management by Typewriting Teachers." Analyst No. Two, how-
ever, placed it under Category III, "Instructional Procedures
Used by Typewriting Teachers."

The teacher was meticulous in teaching his stu-
dents to take care of the equipment, especially
typewriters. He always made sure that this
teaching was put into practice. His general
objective was to train his students to take care
of expensive equipment such as typewriters. As a
result, there was a minimum of typewriter repairs
necessary.
The following is a listing of the three categories and twenty-one sub-categories developed from the category-formulation procedure:

**CATEGORY I. PERSONAL TRAITS AND HABITS OF TYPEWRITING TEACHERS**

Sub-category A. Attitude Toward Pupils and Class
Sub-category B. Maintaining Appropriate Classroom Decorum
Sub-category C. Revealing Personal Experiences and Matters
Sub-category D. Serving as an Example to Students

**CATEGORY II. CLASSROOM MANAGEMENT BY TYPEWRITING TEACHERS**

Sub-category A. Maintaining Class Control
Sub-category B. Conserving Class Time
Sub-category C. Managing Classroom Equipment and Supplies
Sub-category D. Planning Classroom Seating Arrangements
Sub-category E. Providing Classroom Supervision

**CATEGORY III. INSTRUCTIONAL PROCEDURES USED BY TYPEWRITING TEACHERS**

Sub-category A. Handling Assignments
Sub-category B. Giving Classroom Demonstrations
Sub-category C. Providing Individual Attention
Sub-category D. Teaching Basic Machine Operations
Sub-category E. Teaching Basic Applications of Typewriting
Sub-category F. Building Operational Proficiency
Sub-category G. Teaching the Use of the Typewriter as a Personal Tool
Sub-category H. Teaching the Use of the Typewriter as a Commercial Tool
Sub-category I. Teaching the importance of Correct Spelling and Grammar in Relation to Typewriting
Sub-category J. Using Audio-Visual Teaching Aids
Sub-category K. Enlisting Student Cooperation and Aid
Sub-category L. Assigning Student Grades

Two hundred and twenty-two, or slightly more than 75 per cent of the entire number of usable critical incidents reported in the present study were concentrated in Category III, "Instructional Procedures Used by Typewriting Teachers." In keeping with this large percentage of usable critical incidents, 12, or well over half (57.14%), of the sub-categories fell under Category III. Of these 222 incidents, 142 were effective, representing 85.57 per cent of the usable effective incidents, and 56.45 per cent of all of the usable incidents, reported in the present study. Eighty were ineffective representing 62.52 per cent of the usable ineffective incidents, and 27.23 per cent of all of the usable incidents, reported in the present study.

The second greatest concentration was in Category II, "Classroom Management by Typewriting Teachers." It
amounted to 47, or 15.98 per cent of the entire number of usable critical incidents reported in the present study. Five (23.81 per cent) of the sub-categories fell under Category II. Of these 47 incidents, 26 were ineffective representing 20.30 per cent of the usable ineffective incidents, and 8.84 per cent of all the usable incidents, reported in the present study. Twenty-one were effective representing 12.63 per cent of the usable effective incidents, and 7.14 per cent of all the usable incidents, reported in the present study.

The concentration of critical incidents in Category I, "Personal Traits and Habits of Typewriting Teachers," amounted to 25, representing 8.50 per cent of the usable incidents. Four (19.05 per cent) of the sub-categories fell under Category I. Of these 25, 22 were ineffective representing 17.18 per cent of the usable ineffective incidents, and 7.48 per cent of all the usable incidents, reported in the present study. Three were effective representing 1.80 per cent of the usable effective incidents, and 1.02 per cent of all the usable incidents, reported in the present study.

Table X presents a complete breakdown of the assignment of the total number of usable incidents, effective and ineffective, to each category and sub-category established in the present study.
<table>
<thead>
<tr>
<th>Categories and Sub-categories</th>
<th>Total Usable Incidents</th>
<th>Per Cent of Total Usable Incidents</th>
<th>Number of Effective Usable Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. PERSONAL TRAITS AND HABITS OF TYPEWRITING TEACHERS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Attitude Toward Class</td>
<td>11</td>
<td>3.74</td>
<td>1</td>
</tr>
<tr>
<td>B. Maintaining Appropriate Classroom Decorum</td>
<td>4</td>
<td>1.36</td>
<td>0</td>
</tr>
<tr>
<td>C. Revealing Personal Experiences</td>
<td>4</td>
<td>1.36</td>
<td>1</td>
</tr>
<tr>
<td>D. Serving as an Example to Students</td>
<td>6</td>
<td>2.04</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>25</strong></td>
<td><strong>8.50</strong></td>
<td><strong>3</strong></td>
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<td>II. CLASSROOM MANAGEMENT BY TYPEWRITING TEACHERS</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>A. Maintaining Class Control</td>
<td>22</td>
<td>7.48</td>
<td>9</td>
</tr>
<tr>
<td>B. Conserving Class Time</td>
<td>8</td>
<td>2.72</td>
<td>5</td>
</tr>
<tr>
<td>C. Managing Classroom Equipment</td>
<td>6</td>
<td>2.04</td>
<td>3</td>
</tr>
<tr>
<td>D. Planning Classroom Seating Arrangements</td>
<td>7</td>
<td>2.38</td>
<td>3</td>
</tr>
<tr>
<td>E. Providing Classroom Supervision</td>
<td>4</td>
<td>1.36</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>47</strong></td>
<td><strong>15.98</strong></td>
<td><strong>21</strong></td>
</tr>
<tr>
<td>III. INSTRUCTIONAL PROCEDURES USED BY TYPEWRITING TEACHERS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Handling of Assignments</td>
<td>30</td>
<td>10.20</td>
<td>10</td>
</tr>
<tr>
<td>B. Giving Classroom Demonstrations</td>
<td>5</td>
<td>1.70</td>
<td>2</td>
</tr>
<tr>
<td>C. Providing Individual Attention</td>
<td>25</td>
<td>8.50</td>
<td>16</td>
</tr>
<tr>
<td>D. Teaching Basic Machine Operations</td>
<td>35</td>
<td>11.90</td>
<td>20</td>
</tr>
<tr>
<td>E. Teaching Basic Applications of Typewriting</td>
<td>14</td>
<td>4.76</td>
<td>12</td>
</tr>
<tr>
<td>F. Building Operational Proficiency</td>
<td>55</td>
<td>18.71</td>
<td>39</td>
</tr>
<tr>
<td>G. Teaching the Use of the Typewriter as a Personal Tool</td>
<td>12</td>
<td>4.08</td>
<td>5</td>
</tr>
<tr>
<td>H. Teaching the Use of the Typewriter as a Commercial Tool</td>
<td>13</td>
<td>4.42</td>
<td>11</td>
</tr>
<tr>
<td>I. Teaching Importance of Correct Spelling and Grammar in Relation to Typewriting</td>
<td>4</td>
<td>1.36</td>
<td>4</td>
</tr>
<tr>
<td>J. Using Audio-Visual Aids</td>
<td>15</td>
<td>5.13*</td>
<td>13</td>
</tr>
<tr>
<td>K. Enlisting Student Cooperation and Aid</td>
<td>6</td>
<td>2.04</td>
<td>5</td>
</tr>
<tr>
<td>L. Assigning Grades</td>
<td>8</td>
<td>2.72</td>
<td>5</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>222</strong></td>
<td><strong>75.52</strong></td>
<td><strong>142</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTALS</strong></td>
<td><strong>294</strong></td>
<td><strong>100.00</strong></td>
<td><strong>166</strong></td>
</tr>
</tbody>
</table>
TABLE X

Comparison of Category and Sub-Category Established for the Present Study.

<table>
<thead>
<tr>
<th>Incidents</th>
<th>Effective Usable</th>
<th>Number of Incidents</th>
<th>Per Cent of Usable</th>
<th>Per Cent of Total Usable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.60</td>
<td>10</td>
<td>7.81</td>
<td>3.40</td>
</tr>
<tr>
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<td>----</td>
<td>4</td>
<td>3.12</td>
<td>1.36</td>
</tr>
<tr>
<td>1</td>
<td>.60</td>
<td>3</td>
<td>2.34</td>
<td>1.02</td>
</tr>
<tr>
<td>1</td>
<td>.60</td>
<td>5</td>
<td>3.96</td>
<td>1.70</td>
</tr>
<tr>
<td>3</td>
<td>1.80</td>
<td>22</td>
<td>17.18</td>
<td>7.48</td>
</tr>
<tr>
<td>9</td>
<td>5.42</td>
<td>13</td>
<td>10.16</td>
<td>4.42</td>
</tr>
<tr>
<td>5</td>
<td>3.01</td>
<td>3</td>
<td>2.34</td>
<td>1.02</td>
</tr>
<tr>
<td>3</td>
<td>1.80</td>
<td>3</td>
<td>2.34</td>
<td>1.02</td>
</tr>
<tr>
<td>3</td>
<td>1.80</td>
<td>4</td>
<td>3.12</td>
<td>1.36</td>
</tr>
<tr>
<td>1</td>
<td>.60</td>
<td>3</td>
<td>2.34</td>
<td>1.02</td>
</tr>
<tr>
<td>21</td>
<td>12.63</td>
<td>26</td>
<td>20.30</td>
<td>8.84</td>
</tr>
<tr>
<td>10</td>
<td>6.02</td>
<td>20</td>
<td>15.62</td>
<td>6.80</td>
</tr>
<tr>
<td>2</td>
<td>1.20</td>
<td>3</td>
<td>2.34</td>
<td>1.02</td>
</tr>
<tr>
<td>16</td>
<td>9.64</td>
<td>9</td>
<td>7.03</td>
<td>3.06</td>
</tr>
<tr>
<td>20</td>
<td>12.05</td>
<td>15</td>
<td>11.76*</td>
<td>5.13*</td>
</tr>
<tr>
<td>12</td>
<td>7.23</td>
<td>2</td>
<td>1.56</td>
<td>.68</td>
</tr>
<tr>
<td>39</td>
<td>23.49</td>
<td>16</td>
<td>12.50</td>
<td>5.44</td>
</tr>
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<td>3.01</td>
<td>7</td>
<td>5.47</td>
<td>2.38</td>
</tr>
<tr>
<td>11</td>
<td>6.63</td>
<td>2</td>
<td>1.56</td>
<td>.68</td>
</tr>
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<td>0</td>
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<td>----</td>
</tr>
<tr>
<td>13</td>
<td>7.87*</td>
<td>2</td>
<td>1.56</td>
<td>.68</td>
</tr>
<tr>
<td>5</td>
<td>3.01</td>
<td>1</td>
<td>.78</td>
<td>.34</td>
</tr>
<tr>
<td>5</td>
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<tr>
<td>142</td>
<td>85.57</td>
<td>80</td>
<td>62.52</td>
<td>27.23</td>
</tr>
<tr>
<td>166</td>
<td>100.00</td>
<td>128</td>
<td>100.00</td>
<td>43.55</td>
</tr>
</tbody>
</table>
Of the 121 usable incidents which were reported by high school teachers of typewriting, only one fell under Category I, "Personal Traits and Habits of Typewriting Teachers." This single incident represented .83 per cent of the usable incidents reported by teachers as compared to similar percentages of 9.76, 17.22, and 10.25 reported by administrators, students, and secretaries respectively. This single incident was ineffective representing 2.04 per cent of all the usable ineffective incidents reported by teachers.

Nine of the 121 usable incidents which were reported by high school teachers of typewriting fell under Category II, "Classroom Management by Typewriting Teachers." These 9 incidents represented 7.43 per cent of the usable incidents reported by teachers as compared to similar percentages of 24.39, 19.36, and 25.67 reported by administrators, students, and secretaries respectively. Eight of the nine incidents were ineffective representing 16.32 per cent of the usable ineffective incidents, and 6.61 per cent of all usable incidents, reported by teachers. One was effective representing 1.39 per cent of the usable effective incidents, and .83 per cent of all the usable incidents, reported by teachers.

One hundred eleven of the 121 usable incidents reported by high school teachers of typewriting fell under Category III, "Instructional Procedures Used by Typewriting
Teachers." These 111 represented 91.74 per cent of the total number of usable incidents reported by teachers as compared to similar percentages of 65.85, 63.42, and 64.08 reported by administrators, students, and secretaries respectively. Seventy-one of the 111 incidents were effective representing 98.61 per cent of the usable effective incidents, and 58.69 per cent of all the usable incidents, reported by teachers. Forty of the 111 were ineffective representing 81.64 per cent of the usable ineffective incidents, and 33.05 per cent of all the usable incidents, reported by teachers.

Table XI presents a complete breakdown of the assignment of the total number of incidents, effective and ineffective, reported by high school teachers of typewriting, to each category and sub-category established in the present study.
<table>
<thead>
<tr>
<th>Categories and Sub-categories</th>
<th>Total Number of Usable Incidents</th>
<th>Per Cent of Total Usable Incidents (Teachers)</th>
<th>Number of Effective Usable Incidents (Teachers)</th>
</tr>
</thead>
<tbody>
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<td>I. PERSONAL TRAITS AND HABITS OF TYPEWRITING TEACHERS</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>A. Attitude Toward Class</td>
<td>0</td>
<td>----</td>
<td>0</td>
</tr>
<tr>
<td>B. Maintaining Appropriate Classroom Decorum</td>
<td>0</td>
<td>----</td>
<td>0</td>
</tr>
<tr>
<td>C. Revealing Personal Experiences</td>
<td>0</td>
<td>----</td>
<td>0</td>
</tr>
<tr>
<td>D. Serving as an Example to Students</td>
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</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>1</td>
<td>.83</td>
<td>0</td>
</tr>
<tr>
<td>II. CLASSROOM MANAGEMENT BY TYPEWRITING TEACHERS</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>A. Maintaining Class Control</td>
<td>5</td>
<td>4.13</td>
<td>1</td>
</tr>
<tr>
<td>B. Conserving Class Time</td>
<td>2</td>
<td>1.65</td>
<td>0</td>
</tr>
<tr>
<td>C. Managing Classroom Equipment</td>
<td>0</td>
<td>----</td>
<td>0</td>
</tr>
<tr>
<td>D. Planning Classroom Seating Arrangements</td>
<td>2</td>
<td>1.65</td>
<td>0</td>
</tr>
<tr>
<td>E. Providing Classroom Supervision</td>
<td>0</td>
<td>----</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>9</td>
<td>7.43</td>
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</tr>
<tr>
<td>III. INSTRUCTIONAL PROCEDURES USED BY TYPEWRITING TEACHERS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Handling of Assignments</td>
<td>19</td>
<td>15.70</td>
<td>7</td>
</tr>
<tr>
<td>B. Giving Classroom Demonstrations</td>
<td>1</td>
<td>.83</td>
<td>1</td>
</tr>
<tr>
<td>C. Providing Individual Attention</td>
<td>6</td>
<td>4.96</td>
<td>4</td>
</tr>
<tr>
<td>D. Teaching Basic Machine Operations</td>
<td>17</td>
<td>14.05</td>
<td>8</td>
</tr>
<tr>
<td>E. Teaching Basic Applications of Typewriting</td>
<td>13</td>
<td>10.74</td>
<td>11</td>
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<tr>
<td>F. Building Operational Proficiency</td>
<td>26</td>
<td>21.49</td>
<td>18</td>
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<tr>
<td>G. Teaching the Use of the Typewriter as a Personal Tool</td>
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<td>4.96</td>
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<tr>
<td>H. Teaching the Use of the Typewriter as a Commercial Tool</td>
<td>4</td>
<td>3.31</td>
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</tr>
<tr>
<td>I. Teaching the Importance of Correct Spelling and Grammar in Relation to Typewriting</td>
<td>2</td>
<td>1.65</td>
<td>2</td>
</tr>
<tr>
<td>J. Using Audio-Visual Aids</td>
<td>7</td>
<td>5.79</td>
<td>6</td>
</tr>
<tr>
<td>K. Enlisting Student Cooperation and Aid</td>
<td>5</td>
<td>4.13</td>
<td>5</td>
</tr>
<tr>
<td>L. Assigning Grades</td>
<td>5</td>
<td>4.13</td>
<td>3</td>
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<tr>
<td><strong>TOTALS</strong></td>
<td>111</td>
<td>91.74</td>
<td>71</td>
</tr>
<tr>
<td><strong>GRAND TOTALS</strong></td>
<td>121</td>
<td>100.00</td>
<td>72</td>
</tr>
<tr>
<td>Cent total usable teachers</td>
<td>Number of Effective Usable Incidents (Teachers)</td>
<td>Per Cent of Total Usable of Total Incidents (Teachers)</td>
<td>Per Cent of Effective Usable of Total Incidents (Teachers)</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------</td>
<td>-------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
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<td>****</td>
</tr>
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</tr>
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<td>1</td>
<td>1.39</td>
</tr>
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<td></td>
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<td>****</td>
</tr>
<tr>
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<td>1</td>
<td>1.39</td>
</tr>
<tr>
<td></td>
<td>.70</td>
<td>7</td>
<td>9.72</td>
</tr>
<tr>
<td></td>
<td>.83</td>
<td>1</td>
<td>1.39</td>
</tr>
<tr>
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<td>5.56</td>
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<td>.05</td>
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<td>11.11</td>
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</tr>
<tr>
<td></td>
<td>.00</td>
<td>72</td>
<td>100.00</td>
</tr>
</tbody>
</table>
Of the 41 usable incidents which were reported by high school administrators, 4 fell under Category I, "Personal Traits and Habits of Typewriting Teachers." These 4 incidents represented 9.76 per cent of the usable incidents reported by administrators as compared to similar percentages of .83, 17.22, and 10.25 reported by teachers, students, and secretaries respectively. All four were ineffective, representing 22.23 per cent of all the usable ineffective incidents reported by administrators.

Ten of the 41 incidents which were reported by high school administrators fell under Category II, "Classroom Management by Typewriting Teachers." These 10 incidents represented 24.39 per cent of the usable incidents reported by administrators, as compared to similar percentages of 7.43, 19.36, and 25.67 reported by teachers, students, and secretaries respectively. There were an equal number of effective and ineffective incidents, each group of five representing 12.20 per cent of all usable incidents reported by administrators. The five effective incidents represented 21.75 per cent of the effective incidents reported by administrators. The five ineffective incidents represented 27.79 per cent of the ineffective incidents reported by administrators.

Twenty-seven of the 41 incidents which were reported by administrators fell in Category III, "Instructional
Procedures Used by Typewriting Teachers." These 27 represented 65.85 per cent of the usable incidents reported by administrators as compared to similar percentages of 91.74, 63.42, and 64.08 reported by teachers, students, and secretaries respectively. Eighteen were effective representing 78.25 per cent of the usable effective incidents, and 43.91 per cent of all the usable incidents, reported by administrators. Nine were ineffective representing 49.98 per cent of the usable ineffective incidents, and 21.93 per cent of all the usable incidents, reported by administrators.

Table XII presents a complete breakdown of the assignment of the total number of incidents, effective and ineffective, reported by high school administrators, to each category and sub-category established in the present study.
## Table XII

**Assignment of the Total Number of Usable Incidents, Effective and Due to Each Category and Sub-Category Established**

<table>
<thead>
<tr>
<th>Categories and Sub-categories</th>
<th>Total Number of Usable Incidents</th>
<th>Per Cent of Total Usable Incidents</th>
<th>Number of Incidents by Administrators</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. PERSONAL TRAITS AND HABITS OF TYPEWRITING TEACHERS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Attitude Toward Class</td>
<td>3</td>
<td>7.32</td>
<td>0</td>
</tr>
<tr>
<td>B. Maintaining Appropriate Classroom Decorum</td>
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<td>2.44</td>
<td>0</td>
</tr>
<tr>
<td>C. Revealing Personal Experiences</td>
<td>0</td>
<td>---</td>
<td>0</td>
</tr>
<tr>
<td>D. Serving as an Example to Students</td>
<td>0</td>
<td>---</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>4</td>
<td>9.76</td>
<td>0</td>
</tr>
<tr>
<td>II. CLASSROOM MANAGEMENT BY TYPEWRITING TEACHERS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Maintaining Class Control</td>
<td>6</td>
<td>14.63</td>
<td>2</td>
</tr>
<tr>
<td>B. Conserving Class Time</td>
<td>3</td>
<td>7.32</td>
<td>2</td>
</tr>
<tr>
<td>C. Managing Classroom Equipment</td>
<td>1</td>
<td>2.44</td>
<td>1</td>
</tr>
<tr>
<td>D. Planning Classroom Seating Arrangements</td>
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<td><strong>TOTALS</strong></td>
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<td>B. Giving Classroom Demonstrations</td>
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<td>C. Providing Individual Attention</td>
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<td>D. Teaching Basic Machine Operations</td>
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<td>E. Teaching Basic Applications of Typewriting</td>
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<td>F. Building Operational Proficiency</td>
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<td>H. Teaching the Use of the Typewriter as a Commercial Tool</td>
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<td>K. Enlisting Student Cooperation and Aid</td>
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<tr>
<td>L. Assigning Grades</td>
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<td>---</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>27</td>
<td>65.85</td>
<td>10</td>
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<tr>
<td><strong>GRAND TOTALS</strong></td>
<td>41</td>
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</table>
### TABLE XII

**EFFECTIVE AND INEFFECTIVE, REPORTED BY HIGH SCHOOL ADMINISTRATORS,
EIGHTY ESTABLISHED IN THE PRESENT STUDY**

<table>
<thead>
<tr>
<th>Event</th>
<th>Number of Usable Incidents</th>
<th>Per Cent of Usable Incidents</th>
<th>Per Cent of Total Incidents</th>
<th>Number of Incidents</th>
<th>Per Cent of Usable Incidents</th>
<th>Per Cent of Total Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>32</td>
<td>4</td>
<td>4</td>
<td>16.67</td>
<td>7.32</td>
<td>2.44</td>
</tr>
<tr>
<td>by Advisor</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>22.23</td>
<td>9.76</td>
<td>2.44</td>
</tr>
<tr>
<td>by Administra tors</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5.56</td>
<td>2.44</td>
<td>2.44</td>
</tr>
<tr>
<td>39</td>
<td>5</td>
<td>21.75</td>
<td>12.20</td>
<td>27.79</td>
<td>12.20</td>
<td>27.79</td>
</tr>
<tr>
<td>88</td>
<td>2</td>
<td>13.04</td>
<td>7.32</td>
<td>16.67</td>
<td>7.32</td>
<td>2.44</td>
</tr>
<tr>
<td>63</td>
<td>3</td>
<td>30.43</td>
<td>17.07</td>
<td>5.56</td>
<td>2.44</td>
<td>2.44</td>
</tr>
<tr>
<td>63</td>
<td>4</td>
<td>17.39</td>
<td>9.76</td>
<td>11.11</td>
<td>4.88</td>
<td>4.88</td>
</tr>
<tr>
<td>44</td>
<td>1</td>
<td>4.35</td>
<td>2.44</td>
<td>5.53*</td>
<td>2.41*</td>
<td>2.41*</td>
</tr>
<tr>
<td>76</td>
<td>3</td>
<td>13.04</td>
<td>7.32</td>
<td>5.53*</td>
<td>2.41*</td>
<td>2.41*</td>
</tr>
<tr>
<td>85</td>
<td>18</td>
<td>78.25</td>
<td>43.91*</td>
<td>49.98</td>
<td>21.98</td>
<td>43.89*</td>
</tr>
<tr>
<td>100</td>
<td>23</td>
<td>100.00</td>
<td>56.11</td>
<td>100.00</td>
<td>43.89*</td>
<td>43.89*</td>
</tr>
</tbody>
</table>
Of the 93 incidents which were reported by high school students enrolled in typewriting classes, 16 fell under Category I, "Personal Traits and Habits of Typewriting Teachers." These 16 incidents represented 17.22 per cent of the usable incidents reported by students as compared to similar percentages of .83, 9.76, and 10.25 reported by teachers, administrators, and secretaries respectively. Thirteen were ineffective representing 31.72 per cent of the usable ineffective incidents, and 13.98 per cent of all the usable incidents, reported by students. Three were effective representing 5.76 per cent of the usable effective incidents, and 3.24 per cent of all the usable incidents, reported by students.

Eighteen of the 93 incidents which were reported by high school students fell under Category II, "Classroom Management by Typewriting Teachers." These 18 incidents represented 19.36 per cent of the usable incidents reported by students, as compared to similar percentages of 7.43, 24.39, and 25.67 reported by teachers, administrators, and secretaries respectively. Eleven were effective representing 21.15 per cent of the usable effective incidents, and 11.84 per cent of all the incidents, reported by students. Seven were ineffective representing 17.08 per cent of the usable ineffective incidents, and 7.54 per cent of all the usable incidents reported by students.
Fifty-nine of the 93 incidents which were reported by high school students fell under Category III, "Instructional Procedures Used by Typewriting Teachers." These 59 represented 63.42 per cent of the total number of usable incidents reported by students as compared to similar percentages of 91.74, 65.85, and 64.08 reported by teachers, administrators, and secretaries respectively. Thirty-eight were effective representing 73.09 per cent of the usable effective incidents, and 40.89 per cent of all the usable incidents, reported by students. Twenty-one were ineffective representing 51.20 per cent of the usable ineffective incidents, and 22.61 per cent of all the usable incidents, reported by students.

Table XIII presents a complete breakdown of the assignment of the total number of incidents, effective and ineffective, reported by high school students, to each category and sub-category established in the present study.
<table>
<thead>
<tr>
<th>Categories and Sub-categories</th>
<th>Total Number of Usable Incidents (Students)</th>
<th>Per Cent of Total Usable Incidents (Students)</th>
<th>Number of Effective Usable Incidents (Students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. PERSONAL TRAITS AND HABITS OF TYPEWRITING TEACHERS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Attitude Toward Class</td>
<td>5</td>
<td>5.38</td>
<td>1</td>
</tr>
<tr>
<td>B. Maintaining Appropriate Classroom Decorum</td>
<td>3</td>
<td>3.23</td>
<td>0</td>
</tr>
<tr>
<td>C. Revealing Personal Experiences</td>
<td>3</td>
<td>3.23</td>
<td>1</td>
</tr>
<tr>
<td>D. Serving as an Example to Students</td>
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<td>5.38</td>
<td>1</td>
</tr>
<tr>
<td>TOTALS</td>
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<td>17.22</td>
<td>3</td>
</tr>
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<td>II. CLASSROOM MANAGEMENT BY TYPEWRITING TEACHERS</td>
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<td></td>
<td></td>
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<tr>
<td>A. Maintaining Class Control</td>
<td>10</td>
<td>10.75</td>
<td>5</td>
</tr>
<tr>
<td>B. Conserving Class Time</td>
<td>2</td>
<td>2.15</td>
<td>2</td>
</tr>
<tr>
<td>C. Managing Classroom Equipment</td>
<td>1</td>
<td>1.08</td>
<td>0</td>
</tr>
<tr>
<td>D. Planning Classroom Seating Arrangements</td>
<td>3</td>
<td>3.23</td>
<td>3</td>
</tr>
<tr>
<td>E. Providing Classroom Supervision</td>
<td>2</td>
<td>2.15</td>
<td>1</td>
</tr>
<tr>
<td>TOTALS</td>
<td>18</td>
<td>19.36</td>
<td>11</td>
</tr>
<tr>
<td>III. INSTRUCTIONAL PROCEDURES USED BY TYPEWRITING TEACHERS</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>A. Handling of Assignments</td>
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<td>10.75</td>
<td>3</td>
</tr>
<tr>
<td>B. Giving Classroom Demonstrations</td>
<td>2</td>
<td>2.15</td>
<td>1</td>
</tr>
<tr>
<td>C. Providing Individual Attention</td>
<td>5</td>
<td>5.38</td>
<td>4</td>
</tr>
<tr>
<td>D. Teaching Basic Machine Operations</td>
<td>7</td>
<td>7.53</td>
<td>5</td>
</tr>
<tr>
<td>E. Teaching Basic Applications of Typewriting</td>
<td>1</td>
<td>1.08</td>
<td>1</td>
</tr>
<tr>
<td>F. Building Operational Proficiency</td>
<td>15</td>
<td>16.09*</td>
<td>11</td>
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<tr>
<td>G. Teaching the Use of the Typewriter as a Personal Tool</td>
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<td>5.37</td>
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<td>H. Teaching the Use of the Typewriter as a Commercial Tool</td>
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<td>7.53</td>
<td>5</td>
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<tr>
<td>I. Teaching the Importance of Correct Spelling and Grammar in Relation to Typewriting</td>
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<td>1.08</td>
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</tr>
<tr>
<td>J. Using Audio-Visual Aids</td>
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<td>3.23</td>
<td>3</td>
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<tr>
<td>K. Enlisting Student Cooperation and Aid</td>
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<td>1.08</td>
<td>0</td>
</tr>
<tr>
<td>L. Assigning Grades</td>
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<td>2.15</td>
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</table>
### Table XIII

**Efficiency and Ineffectiveness, Reported by High School Students, Survey Established in the Present Study**

<table>
<thead>
<tr>
<th>Number of Effective Usable Incidents (Students)</th>
<th>Per Cent of Total Usable Effective Incidents (Students)</th>
<th>Per Cent of Total Usable Incidents (Students)</th>
<th>Number of Ineffective Usable Incidents (Students)</th>
<th>Per Cent of Total Usable Ineffective Incidents (Students)</th>
<th>Per Cent of Total Usable Incidents (Students)</th>
</tr>
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<td>4.30</td>
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<td>7.32</td>
<td>3.23</td>
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<tr>
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<td>1.92</td>
<td>1.08</td>
<td>2</td>
<td>4.88</td>
<td>2.15</td>
</tr>
<tr>
<td>1</td>
<td>1.92</td>
<td>1.08</td>
<td>4</td>
<td>9.76</td>
<td>4.30</td>
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<td>3.24</td>
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<td>13.98</td>
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<td>9.62</td>
<td>5.38</td>
<td>5</td>
<td>12.20</td>
<td>5.38</td>
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<tr>
<td>2</td>
<td>3.85</td>
<td>2.15</td>
<td>0</td>
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<td>----</td>
</tr>
<tr>
<td>0</td>
<td>----</td>
<td>----</td>
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<td>2.44</td>
<td>1.08</td>
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<td>5.76</td>
<td>3.23</td>
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<td>----</td>
</tr>
<tr>
<td>1</td>
<td>1.92</td>
<td>1.08</td>
<td>1</td>
<td>2.44</td>
<td>1.08</td>
</tr>
<tr>
<td>11</td>
<td>21.15</td>
<td>11.84</td>
<td>7</td>
<td>17.08</td>
<td>7.54</td>
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<tr>
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<td>5.76</td>
<td>3.23</td>
<td>7</td>
<td>17.08</td>
<td>7.54</td>
</tr>
<tr>
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<td>1.92</td>
<td>1.08</td>
<td>1</td>
<td>2.44</td>
<td>1.08</td>
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<tr>
<td>4</td>
<td>7.69</td>
<td>4.30</td>
<td>1</td>
<td>2.44</td>
<td>1.08</td>
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<tr>
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<td>9.62</td>
<td>5.38</td>
<td>2</td>
<td>4.88</td>
<td>2.15</td>
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<tr>
<td>1</td>
<td>1.92</td>
<td>1.08</td>
<td>0</td>
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<td>----</td>
</tr>
<tr>
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<td>21.18*</td>
<td>11.78*</td>
<td>4</td>
<td>9.76</td>
<td>4.30</td>
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<tr>
<td>2</td>
<td>3.85</td>
<td>2.15</td>
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<td>7.32</td>
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<td>2</td>
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<td>1.08</td>
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<td>38</td>
<td>73.09</td>
<td>40.89</td>
<td>21</td>
<td>51.20</td>
<td>22.61</td>
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<tr>
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<td>55.97</td>
<td>41</td>
<td>100.00</td>
<td>44.13</td>
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</table>
Of the 39 incidents which were reported by professional secretaries, 4 fell under Category I, "Personal Traits and Habits of Typewriting Teachers." These 4 incidents represented 10.25 per cent of the usable incidents reported by secretaries as compared to similar percentages of .83, 9.76, and 17.22 reported by teachers, administrators, and students respectively. All four were ineffective representing 20.00 per cent of all the usable ineffective incidents, and 10.25 per cent of all the usable incidents, reported by secretaries.

Of the 39 incidents which were reported by professional secretaries, 10 fell under Category II, "Classroom Management by Typewriting Teachers." These 10 represented 25.67 per cent of the usable incidents reported by secretaries as compared to similar percentages of 7.43, 24.39, and 19.36 reported by teachers, administrators, and students respectively. Six were ineffective representing 30.00 per cent of the usable ineffective incidents, and 15.39 per cent of all the usable incidents, reported by secretaries. Four were effective representing 21.05 per cent of the usable effective incidents, and 10.25 per cent of all the usable incidents reported by secretaries.

Twenty-five of the 39 incidents which were reported by professional secretaries fell under Category III,
"Instructional Procedures Used by Typewriting Teachers."
These 25 represented 64.08 per cent of the usable incidents reported by secretaries as compared to similar percentages of 91.74, 65.85, and 63.42 reported by teachers, administrators, and students respectively. Fifteen were effective representing 78.95 per cent of the usable effective incidents, and 38.48 per cent of all the incidents, reported by secretaries. Ten were ineffective representing 50.00 per cent of the usable ineffective incidents, and 25.63 per cent of all the usable incidents, reported by professional secretaries.

Table XIV presents a complete breakdown of the assignment of the total number of incidents, effective and ineffective, reported by professional secretaries, to each category and sub-category established in the present study,
## TABLE XIV

**Assignment of the Total Number of Incidents, Effective and Ineffective, to Each Category and Sub-Category Established**

<table>
<thead>
<tr>
<th>Categories and Sub-categories</th>
<th>Total Number of Usable Incidents</th>
<th>Per Cent of Total Usable Incidents</th>
<th>Number of Effective Incident Usable by Secretaries</th>
</tr>
</thead>
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<td><strong>I. Personal Traits and Habits of Typewriting Teachers</strong></td>
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<td></td>
</tr>
<tr>
<td>A. Attitude Toward Class</td>
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<td>7.69</td>
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</tr>
<tr>
<td>B. Maintaining Appropriate Classroom Decorum</td>
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<td>---</td>
<td>0</td>
</tr>
<tr>
<td>C. Revealing Personal Experiences</td>
<td>1</td>
<td>2.56</td>
<td>0</td>
</tr>
<tr>
<td>D. Serving as an example to Students</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>4</td>
<td>10.25</td>
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<tr>
<td><strong>II. Classroom Management by Typewriting Teachers</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>A. Maintaining Class Control</td>
<td>1</td>
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<td>1</td>
</tr>
<tr>
<td>B. Conserving Class Time</td>
<td>1</td>
<td>2.56</td>
<td>1</td>
</tr>
<tr>
<td>C. Managing Classroom Equipment</td>
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</tr>
<tr>
<td>E. Providing Classroom Supervision</td>
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<td><strong>TOTALS</strong></td>
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<td><strong>III. Instructional Procedures Used by Typewriting Teachers</strong></td>
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</tr>
<tr>
<td>A. Handling of Assignments</td>
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<tr>
<td>B. Giving Classroom Demonstrations</td>
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<td>---</td>
<td>0</td>
</tr>
<tr>
<td>C. Providing Individual Attention</td>
<td>8</td>
<td>20.51</td>
<td>5</td>
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<tr>
<td>D. Teaching Basic Machine Operations</td>
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<td>7.69</td>
<td>0</td>
</tr>
<tr>
<td>E. Teaching Basic Applications of Typewriting</td>
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<td>---</td>
<td>0</td>
</tr>
<tr>
<td>F. Building Operational Proficiency</td>
<td>8</td>
<td>20.51</td>
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<tr>
<td>G. Teaching the Use of the Typewriter as a Personal Tool</td>
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<td>2.56</td>
<td>1</td>
</tr>
<tr>
<td>H. Teaching the Use of the Typewriter as a Commercial Tool</td>
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<td>5.13</td>
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<tr>
<td>I. Teaching the Importance of Correct Spelling and Grammar in Relation to the Typewriter</td>
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<td>---</td>
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</tr>
<tr>
<td>J. Using Audio-Visual Aids</td>
<td>1</td>
<td>2.56</td>
<td>1</td>
</tr>
<tr>
<td>K. Enlisting Student Cooperation and Aid</td>
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<td>---</td>
<td>0</td>
</tr>
<tr>
<td>L. Assigning Grades</td>
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</tr>
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TABLE XIV

IVE AND INEFFECTIVE, REPORTED BY PROFESSIONAL SECRETARIES, BY ESTABLISHED IN THE PRESENT STUDY

<table>
<thead>
<tr>
<th>Number of Effective Incidents</th>
<th>Per Cent of Total Usable</th>
<th>Per Cent of Total Usable</th>
<th>Number of Ineffective Incidents</th>
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V. Determining the Critical Requirements

In the previous section, the critical-incident data were analyzed and classified into categories and subcategories. Using the same critical-incident data, it is now proposed in this section to present a further analysis and summary in the form of critical requirements for high school typewriting teachers. A critical requirement is a descriptive statement describing a significant behavioral pattern to which a teacher of typewriting, to be effective, should conform. The major purpose for formulating the critical requirements is simply to arrange the critical-incident data for maximum usefulness.

The critical requirements for high school teachers of typewriting, as determined in the present study, were based upon an analysis of the critical incidents obtained from a selected sample of observers including:

1. high school typewriting teachers;
2. high school students enrolled in typewriting classes;
3. high school administrators;
4. professional secretaries from throughout the state of Arizona.

A critical incident is a written report of an observed classroom situation, practice, or incident involving
a typewriting teacher in which that teacher's behavior was judged:

1. particularly good and/or appropriate; or,
2. particularly poor and/or inappropriate by an observer. Each critical incident reported was labeled "good and/or appropriate," or "poor and/or inappropriate" by the individual observer who made the report, and in all cases these labels were respected, although in a few cases the writer personally disagreed with the classification.

After each incident was examined, abstracted, categorized, re-examined and sub-categorized, it was necessary to devise a means of analyzing the critical incidents for the purpose of translating the behaviors contained in the incidents into statements that would adequately describe observable patterns of behavior as they relate to classroom responsibilities of teachers of typewriting.

The most important part of a critical incident is the critical behavior, or what the typewriting teacher actually did. As the first step in the process of determining the critical requirements, the critical behaviors assigned to each sub-category were again re-grouped according to basic similarities. This was done irrespective of the source of the incident, or the type, that is, effective or ineffective. Critical requirements were then written for each sub-category.
All of the critical requirements were written as objective statements, describing the critical behaviors assigned to each sub-category as precisely as possible. In one case it was necessary to write three critical requirements in order to describe adequately all of the incidents assigned to one sub-category. In three cases it was necessary to write two critical requirements for a sub-category. A total of twenty-six critical requirements were derived from the data collected for the present study.

Since it would be impractical to present, at this point, all of the critical incidents obtained for the present study, only a selected sample of critical incidents are presented in order to give the reader an example of the nature of the data upon which the critical requirements were determined. Also, a selected sample of critical behaviors that were abstracted from other critical incidents are presented. The reader should bear in mind that these critical-behavior abstracts are listed only to illustrate the types of behavior reported in additional critical incidents under each sub-category and are by no means to be thought of as complete precis of the critical incidents from which they were taken. Therefore, the sequence of the information presented under each category heading in the following section is:

(a) a complete critical incident,
(b) a selected number of critical behaviors,
(c) the critical requirement or requirements derived from each sub-category.
The critical requirements for high school typewriting teachers based upon an analysis of critical incidents are presented as follows:

**CATEGORY I
PERSONAL TRAITS AND HABITS OF TYPEWRITING TEACHERS**

**Sub-category A. Attitude Toward Pupils and Class**

**Critical Incident**

The teacher was a grouch; she griped all the time. Whether her students got their lessons right or wrong made no difference. Her objective was to control her students. As a result, some of her students dreaded going to class every day. Some developed such bad attitudes it is a wonder they ever learned to type.

**Critical Behaviors**

- Started out the class by telling how terrible the class before had been.
- Indulged in long tirades about "the girls of today" and their attire.
- Lost patience and screamed profane remarks at the typewriting class.

**Critical Requirement**

The effective high school typewriting teacher maintains a pleasant, positive attitude toward the typewriting class. Also, he remains composed when addressing the typewriting class and the individual students in the typewriting class.

**Sub-category B. Maintaining Appropriate Classroom Decorum**

**Critical Incident**

The typing teacher had the habit of arguing about religion. One day she argued it very vehemently with
a group of three or four students, violently attacking their religious beliefs. Her objective was to run down their beliefs. As a result, another teacher was compelled to quiet her down.

**Critical Behaviors**

Lowered self to students' level, becoming very silly and juvenile acting.

Made smutty remarks and fondled students in class.

**Critical Requirement**

The effective high school typewriting teacher avoids undue familiarity with his students.

**Sub-category C. Revealing Personal Experiences and Matters**

**Critical Incident**

Just after the class had finished a unit on filling out job applications and were proceeding to the next unit, the teacher, while grading the application papers, suddenly came across one person's paper saying that her birthplace was a town where he had been stationed during the war. At once he told everyone to stop typing and proceeded to tell of his experiences during his stay in that town. The members of the class were all about halfway done with the assignment, but he took up the rest of the hour telling of his adventures. His objective was to entertain the class by recalling his adventures. Of course, most everyone was glad to get out of the work for the next half hour, but the class still had the same deadline to meet. Consequently, some people didn't get their papers in on time and received point deductions.

**Critical Behaviors**

Spent one whole class period telling life stories.

Told class about personal experiences to help acquaint students with the Civil Service.
Critical Requirement

The effective high school typewriting teacher avoids relating personal experiences and matters except when they will contribute to the curriculum.

Sub-category D. Serving as an Example to Students

Critical Incident

The teacher constantly told the class, "When erasing a mistake, move the carriage all the way over to the side so the erasings don't fall into the machine." However, she was often guilty of not doing this herself. She was trying to teach this technique so the machines wouldn't get fouled up. Her own actions sometimes set a bad example.

Critical Behaviors

Urged students to get to class on time but was often late to class herself.

Failed to accede when a student called attention to a mistake he made.

Stressed the importance of good posture and always maintained good posture herself.

Critical Requirement

The effective high school typewriting teacher serves as an example to his students by practicing what he teaches.

CATEGORY II

CLASSROOM MANAGEMENT BY TYPEWRITING TEACHERS

Sub-category A. Maintaining Class Control

Critical Incident

A group of three or four girls in the last-hour typing class were being quite consistent in their actions. They would either come in tardy or ditch
typing completely. When they did come to class, they sat in the back corner and did practically nothing in the way of typing. Dates, letters, gossip, and boys were, however, a different story. Before long the teacher came to the conclusion that something had to be done. She talked to each of the girls individually about the problem, transferred one of the girls into an earlier class, separated the others, and lowered their grades for being tardy. The object was to discipline these students. As a result of this action, an orderly classroom evolved. After this the girls did their work and their speed, accuracy, and grades steadily improved.

**Critical Behaviors**

Calmly took command of an embarrassing situation and pointed out to the class the importance of maintaining self control under such circumstances.

Slapped a student across the face.

Vehemently berated a student for behavior that other students got away with daily.

**Critical Requirement**

The effective high school typewriting teacher maintains control of the typewriting class by remaining calm and dignified when dealing with classroom management and disciplinary problems. He also guards against (1) the formation of cliques and uncooperative groups of students within the typewriting class, and (2) accusing and disciplining students unfairly.

**Sub-Category B. Conserving Class Time**

**Critical Incident**

Miss assigned a student in each of her classes to be the class secretary. This meant that that student took roll each day, recorded excuses, etc. The result was time saved for the teacher to teach more typewriting.

**Critical Behaviors**
Insisted the class start typing the minute the bell rang so as not to waste valuable class time.

Wasted class time by actually "calling" roll every day.

Critical Requirement

The effective high school typewriting teacher begins each class period punctually in order to make use of as much of the class time as possible and avoids wasting class time with non-typewriting activities.

Sub-category C. Managing Classroom Equipment and Supplies

Critical Incident

The teacher was meticulous in teaching his students to take care of equipment, especially typewriters. He always made sure that this teaching was put into practice. His general objective was to train his students to take care of expensive equipment such as typewriters. As a result, there was a minimum of typewriter repairs necessary.

Critical Behaviors

Was not strict about care of typewriters, with the result that several typewriters were in poor shape.

Stressed fact that the typewriter is an expensive machine and that it is up to the operator to keep it in good condition.

Critical Requirement

The effective high school typewriting teacher makes sure that the typewriters, and other classroom equipment, receive proper care and treatment.

Sub-category D. Planning Classroom Seating Arrangements

Critical Incident

The teacher, at the beginning of the year, moved a boy to another seat because he was bothered by his
seatmate's bell and kept returning his carriage at the wrong time. The objective was to help the student learn to listen only for his own bell. This helped the boy relax and he did better work from then on.

**Critical Behaviors**

Switched a student who couldn't type without watching the keys to a typewriter with blank keys.

Frustrated a slow-typing student by assigning him to sit between two fast-typing students.

Had students sit in same seats all year which frustrated at least one slow-typing student who was thus forced to sit by a speed demon the entire year.

**Critical Requirement**

The effective high school typewriting teacher uses a carefully planned, flexible student seating arrangement in the typewriting classroom.

**Sub-category E. Providing Classroom Supervision**

**Critical Incident**

The typing teacher was hardly ever in the room to give instruction or guidance to any of the class members. He always seemed to shirk the responsibility of staying in the classroom. Whenever a student wanted to ask him anything, he could usually be found in his little office reading the paper or gabbing with his secretary. He apparently wasn't really interested in teaching typing. As a result, the class was very unruly, typewriters were always out of order, very little was actually accomplished, and very few of the students were interested in the subject.

**Critical Behaviors**

Being head of the Commercial Department, often had to leave the room to tend to other business.

Stayed at school until 9:30 to keep the room open for students trying to finish back work.
Critical Requirement

The effective high school typewriting teacher supervises the typewriting classroom by remaining in the typewriting classroom throughout the class period.

CATEGORY III

INSTRUCTIONAL PROCEDURES USED BY TYPEWRITING TEACHERS

Sub-category A. Handling Assignments

Critical Incident

The teacher was concerned because apparently her students were failing to understand the instructions to certain assignments. Many did them wrong and others took a long time getting started. She suspected that many times when the directions were being read the students were day dreaming, and she, herself, was not being very specific. To rectify the situation she had the students put everything off their desks except their typing books. She then had different students read the directions, and she explained each paragraph as they read it. The objective was to improve the giving and understanding of assignment instructions. The teacher found that the new system worked much better and that at least 90 per cent of the students knew exactly what to do.

Critical Behaviors

Failed to thoroughly preview problems so did not anticipate many questions that came up.

Failed to obtain students' attention before giving assignment instructions.

When teaching outlines, passed out a mimeographed copy of the directions set up in outline form.

Permitted students to rely upon own judgments about finishing and handing in regular assignments.
Frustrated class by not allotting enough time to finish first carbon-paper assignment.

Critical Requirements

The effective high school typewriting teacher plans various types of typewriting assignments with specific reasons in mind for them, and prepares and previews all assignments ahead of class time. He also takes pains to see that the students thoroughly understand each new assignment, allots sufficient time for the completion of each assignment, and sets a definite date on which each assignment is due.

Sub-category B. Giving Classroom Demonstrations

Critical Incident

When the teacher was attempting to teach the use of the keyboard, she had all the students gather around her at the typewriter. Her general objective was to demonstrate the use of the keyboard. The discipline became unbearable because all twenty-five students couldn't see and she lost their attention.

Critical Behaviors

Allowed some of the students to use their machines, while attempting to demonstrate to the remainder of the class.

Developed a unique method of typing-classroom demonstration which seemed to be superior to the demonstration stand type.

Critical Requirement

The effective high school typewriting teacher conducts carefully planned classroom typewriting demonstrations.

Sub-category C. Providing Individual Attention

Critical Incident

The teacher never sat down. She constantly walked among the students observing techniques,
posture, and general use of machines. Her general objective was to be in such a position that she could give individual attention almost immediately if it were needed by some student. As a result, few poor habits were developed by her students.

**Critical Behaviors**

Made a one-armed student feel welcome, ordered her a special book and gave her special attention all semester.

Often displayed assignments which were examples of beautiful and superior work.

**Critical Requirement**

The effective high school typewriting teacher becomes aware of the individual differences existing among students in the typewriting class. During the class period he circulates among the students providing whatever individual attention seems necessary to help each student learn to typewrite correctly. He also gives each student special recognition whenever it seems appropriate.

**Sub-category D. Teaching Basic Machine Operations**

**Critical Incident**

After demonstrating how to set margins on the demonstration typewriter, the teacher completed the exercise for the benefit of the students with that type of machine. Then, for the benefit of those with pica machines, the entire process was repeated. For a third time, the students gathered around the different brands of machines and were shown the same process. The general objective was to teach "setting the margin stops" on all types of typewriters in that classroom. As a result, the students learned how to set margins for either pica or elite machines regardless of the brand name.

**Critical Behaviors**

Taught students "to figure" margin settings rather than to memorize them.
Used a three-step procedure in teaching tabulation consisting of teacher demonstration, blackboard illustration, and class participation.

Re-explained the tabulation process several times, for the benefit of several people who could not catch on, without becoming annoyed.

Thoroughly confused students by explaining two different ways of centering typed material.

Frustrated students and lowered their speeds by never allowing them to use erasers.

Invented own series of keyboard exercises designed to develop good stroking techniques, which were used while presenting the keyboard.

**Critical Requirements**

The effective high school typewriting teacher demonstrates and teaches setting of typewriter margin stops, instructing students how "to figure" margin settings for any desired line length, rather than having them memorize exact settings for various line lengths.

The effective high school typewriting teacher, when demonstrating and teaching tabulation, makes extensive use of the blackboard to illustrate the various steps and procedures involved, making certain that students clearly understand the tabulation process before giving a graded assignment involving tabulation.

The effective high school typewriting teacher gives careful thought and planning to the teaching of the centering process, teaches students to use the typewriter eraser, and stresses the importance of steady, even typewriting rhythm.

**Sub-category E. Teaching Basic Applications of Typewriting**

**Critical Incident**

After completing a unit on typing an application letter and data sheet, the teacher had her students
bring an ad from the newspaper. They were to answer the ad by typing an application letter and enclosing a data sheet. They were to make the situation as real as possible. If the student was not interested in a typist job, he or she could choose some other position. The teacher's object was to have her students apply what they had learned to a personal situation such as they would encounter in the future when applying for a position. An employer outside the class appraised the letters pointing out the good and bad points of the application, thus giving the student an idea of how to write a good letter as well as emphasizing the importance of writing a good application letter.

Critical Behaviors

Supplied students with a reference list of information on letters in their textbook, requiring them to keep this list attached to their textbooks for handy reference.

When teaching students how to address envelopes, ignored the "return address."

Changed the schedule for teaching manuscript typing to coincide with research-paper assignments in other classes.

Critical Requirements

The effective high school typewriting teacher teaches the typewriting of letters, emphasizing the different styles of personal and business letters.

The effective high school typewriting teacher plans the teaching of manuscript typewriting for times during the school year when such knowledge can best be put to immediate practical use by the students. Also, when teaching manuscript typewriting, he makes use of demonstrations, blackboard illustrations, and bulletin-board displays to help take the "guess-work" out of such assignments.
Sub-category F. Building Operational Proficiency

Critical Incident

One day while giving a timed writing test, the teacher walked around the room bouncing a golf ball. He was mainly watching the typing techniques of the students without realizing that the bouncing of the ball was disturbing. The bouncing of the ball caused the students to make mistakes which they otherwise would not have made.

Critical Behaviors

Devoted two entire periods a week to five- and ten-minute speed tests and drills.

Used a special arrangement of twelve-second and one-minute drills to build up students' typing speeds.

Used a frustrating and ineffective push-speed-building plan.

Included long letters as timed-writing tests and scored them as regular tests.

Joked with class before timed writings to relieve tension.

Used a thermometer chart to display all speeds attained so far by members of the class.

Put undue pressure on students to be more accurate, with the result that they became tense and more inaccurate.

Had each student set realistic, specific speed and accuracy goals for himself.

To teach the class to proofread, had students re-do any paper handed in with an error.

Awarded emblems to students who attained certain high speeds with exceptional accuracy.
Critical Requirements

The effective high school typewriting teacher uses special drills designed to increase students' typewriting speeds, but carefully plans their use so that they do not overly frustrate the students. He establishes a definite routine for testing for speed, uses a variety of copy material for speed tests, and takes precautions to see that the classroom atmosphere is as relaxed as possible when speed tests are being administered.

The effective high school typewriting teacher uses visual devices such as wall charts and graphs to enable each student to compare his individual speed progress with that of the other students in the class. He helps each student set up a speed goal for himself and provides him with a form on which to keep track of his speed progression or regression.

The effective high school typewriting teacher stresses the importance of accurate typewriting, using various special drills and exercises—often on a competitive basis—to encourage and build accuracy. He also trains his students to thoroughly proofread their work.

Sub-category G. Teaching Use of the Typewriter as a Personal Tool

Critical Incident

The teacher, acceding to the pleas of other teachers, assigned students to the members of the faculty to do their personal secretarial work. The object was to help the teachers and give the students actual job experience. The teacher's regular classroom schedule was badly upset by this routine. She was constantly interrupted during class period and spent far too much time helping the students and proofreading their work. If the work was not perfect, the teachers complained. Often so much work came into the department that the teacher had to pitch in and do some of the typing herself to help catch up.
Sub-category F. Building Operational Proficiency

Critical Incident

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Critical Behaviors

To encourage the use of typing as a personal tool, once a week allowed each student to type a previously cleared assignment from another class in place of the regular assignment.

From time to time allowed free time for personal typing, but not many made good use of the time and discipline was hard to maintain.

Gave class two periods to do art typing without providing instruction or patterns to follow.

Critical Requirement

The effective high school typewriting teacher, to encourage the use of typewriting as a personal tool, occasionally allows students to typewrite previously planned assignments such as personal letters and materials from other classes, but avoids letting the typewriting class be used as a stenographic pool for the faculty. He also provides students with opportunities to do creative work at the typewriter.

Sub-category H. Teaching Use of the Typewriter as a Commercial Tool

Critical Incident

The teacher invited a representative from the Arizona State Employment Office to talk to her typing students. The object was to make the students aware of the need for good typists. The representative was an excellent and gracious speaker. She stressed the importance of neatness and accuracy.

Critical Behaviors

Demonstrated use of the dictaphone to the advanced typewriting class.

Kept emphasizing the importance of a college education.
Used a commercial packet to acquaint students with office-type typewriting.

Critical Requirement

The effective high school typewriting teacher, using demonstrations, outside speakers, etc., informs students of the various types of positions which are available to persons with an ability to typewrite. At appropriate times he discusses with the class such things as personalities, personal appearance, higher education, and other similar things of importance to a person using typewriting as a means of livelihood. Also, when students are sufficiently advanced, as nearly as possible simulates an office environment in the typewriting classroom.

Sub-category I. Teaching the Importance of Correct Spelling and Grammar in Relation to Typewriting

Critical Incident

The teacher required ten spelling words, with their meanings, to be learned each week. The teacher's general objective was to improve spelling. Pupils missing two or more words had to type those words outside of class twenty times and learn to spell them correctly. There was a noticeable improvement in spelling.

Critical Behavior

Assigned short, daily exercises concerned with grammar rules.

Critical Requirement

The effective high school teacher of typewriting stresses the importance of correct spelling and grammar in relation to any finished, typewritten product.
Sub-category J. Use of Audio-Visual Teaching Aids

Critical Incident

On one observation the teacher was covering a lesson on the re-alignment of material in the typewriter. After going through the directions in the typing book, he gave a personal demonstration on a typewriter in the front of the room. This typewriter was placed on a demonstration stand in full view of the students. To further simplify this lesson he then gave another demonstration by using a reproduction of the aligning scale which was two feet in length and about four inches wide. This was made by the teacher from two pieces of wood which made possible the placement of a sheet of paper with stenciled material symbolizing typewritten material between the two pieces of wood. The object was to teach correct re-alignment of material in the typewriter. As a result of these demonstrations there was very little need for individual instruction.

Critical Behaviors

Showed a film illustrating correct typing techniques and procedures but failed to allow enough time to discuss points of interest after the showing.

Constructed a metallic bulletin board, using magnets to hold various cardboard strips representing parts of business letters, which was used to teach the different letter styles.

Critical Requirement

The effective high school typewriting teacher carefully plans classroom use of, and in many cases personally devises, such audio-visual teaching aids as enlarged reproductions of certain working parts of the typewriter, bulletin boards, tape recordings, blackboards, rhythm records, posters, and films.
Sub-category K. Enlisting Student Cooperation and Aid

Critical Incident

At the beginning of a series of twelve office-type problems the teacher asked for twelve volunteers to serve as "office managers"—one for each problem. As students completed each problem they took it to the office manager for that particular problem to be checked for form and attention to directions. Until the typist obtained the office manager's initials on his work he could not hand it in for grading. This plan was set up in an effort to develop better work habits along the lines of "following directions" and "assuming responsibility for own work." The "office managers" seemed to benefit most. Most of the students became more concerned with following directions as the work progressed. Some students were impressed by the fact that their errors in form and spacing were obvious even to their own contemporaries.

Critical Behaviors

After presenting techniques of good posture, eyes on copy, and good stroking, assigned daily-rotated student proctors to rate peers on those techniques.

When called out of the room had a senior girl fill in by teaching class how to erase, which she did incorrectly.

Critical Requirement

The effective high school typewriting teacher enlists the cooperation and aid of students enrolled in the typewriting class in setting up and carrying out such classroom activities as simulated office situations, demonstrations, and devising audio-visual teaching aids.

Sub-category L. Assigning Grades

Critical Incident

The teacher did not give grades for grading purposes during the first four weeks of beginning
typewriting. In order that they might have a relaxed feeling while learning the keyboard, he did not want the students to worry about grades. The students seemed to learn the keyboard faster, and their typing was much faster and more accurate than students the teacher had taught in previous years.

**Critical Behaviors**

Used a precise grading system which left room for competition among students.

Apparently never checked a single paper because none were ever handed back to the students.

Counted perfect lines typed in warm-up period as an important part of term grade.

**Critical Requirement**

The effective high school typewriting teacher sets up and follows a definite plan for assigning grades.

To summarize, the twenty-six critical requirements listed in this section are presented separate from the supporting behavioral data in order to facilitate quick and easy reference to the entire group of critical requirements.

The effective high school typewriting teacher:

1. Maintains a pleasant, positive attitude toward the typewriting class. Also, he remains composed when addressing the typewriting class and the individual students in the typewriting class.

2. Avoids undue familiarity with his students.

3. Avoids relating personal experiences and matters except when they will contribute to the curriculum.
4. Serves as an example to his students by practicing what he teaches.

5. Maintains control of the typewriting class by remaining calm and dignified when dealing with classroom management and disciplinary problems. He also guards against (1) the formation of cliques and un-cooperative groups of students within the typewriting class, and (2) accusing and disciplining students unfairly.

6. Begins each class period punctually in order to make use of as much of the class time as possible and avoids wasting class time with non-typewriting activities.

7. Makes sure that the typewriters, and other classroom equipment, receive proper care and treatment.

8. Uses a carefully planned, flexible student seating arrangement in the typewriting classroom.

9. Supervises the typewriting classroom by remaining in the typewriting classroom throughout the class period.

10. Plans various types of typewriting assignments with specific reasons in mind for them, and prepares and previews all assignments ahead of class time. He also takes pains to see that the students thoroughly understand each new assignment, allots sufficient time for the completion of each assignment, and sets a definite date on which each assignment is due.

11. Conducts carefully planned classroom typewriting demonstrations.

12. Becomes aware of the individual differences existing among students in the typewriting class. During the class period he circulates among the students providing whatever individual attention seems necessary to help each student learn to typewrite correctly. He also gives each student special recognition whenever it seems appropriate.

13. Demonstrates and teaches setting of typewriter margin stops, instructing students on how "to
figure" margin settings for any desired line length, rather than having them memorize exact settings for various line lengths.

14. When demonstrating and teaching tabulation, makes extensive use of the blackboard to illustrate the various steps and procedures involved, making certain that students clearly understand the tabulation process before giving a graded assignment involving tabulation.

15. Gives careful thought and planning to the teaching of the centering process, teaches students to use the eraser, and stresses the importance of steady, even typewriting rhythm.

16. Teaches the typewriting of letters, emphasizing the different styles of personal and business letters.

17. Plans the teaching of manuscript typewriting for times during the school year when such knowledge can best be put to immediate practical use by the students. Also, when teaching manuscript typewriting, he makes use of demonstrations, blackboard illustrations, and bulletin-board displays to help take the "guess-work" out of such assignments.

18. Uses special drills designed to increase students' typewriting speeds, but carefully plans their use so that they do not overly frustrate the students. He establishes a definite routine for testing for speed, uses a variety of copy material for speed tests, and takes precautions to see that the classroom atmosphere is as relaxed as possible when speed tests are being administered.

19. Uses visual devices such as wall charts and graphs to enable each student to compare his individual speed progress with that of the other students in the class. He helps each student set up a speed goal for himself and provides him with a form on which to keep track of his speed progression or regression.

20. Stresses the importance of accurate typewriting, using various special drills and exercises—
often on a competitive basis—to encourage and build accuracy. He also trains his students to thoroughly proofread their work.

21. To encourage the use of typewriting as a personal tool, occasionally allows students to typewrite previously planned assignments such as personal letters and materials from other classes, but avoids letting the typewriting class be used as a stenographic pool for the faculty. He also provides students with opportunities to do creative work at the typewriter.

22. Using demonstrations, outside speakers, etc., informs students of the various types of positions which are available to persons with an ability to typewrite. At appropriate times he discusses with the class such things as personalities, personal appearance, higher education, and other similar things of importance to a person using typewriting as a means of livelihood. Also, when students are sufficiently advanced, as nearly as possible simulates an office environment in the typewriting classroom.

23. Stresses the importance of correct spelling and grammar in relation to any finished, typewritten product.

24. Carefully plans classroom use of, and in many cases personally devises, such audio-visual teaching aids as enlarged reproductions of certain working parts of the typewriter, bulletin boards, tape recordings, blackboards, rhythm records, posters, and films.

25. Enlists the cooperation and aid of students enrolled in the typewriting class in setting up and carrying out such classroom activities as simulated office situations, demonstrations, and devising audio-visual teaching aids.

26. Sets up and follows a definite plan for assigning grades.
CHAPTER V

RECOMMENDATIONS AND CONCLUSIONS

I. Summary of the Present Study

The present study represents an attempt to determine a set of critical requirements for the effective performance of high school typewriting teachers through a collection and analysis of a group of critical incidents performed by high school typewriting teachers. Secondary purposes of this investigation were to develop a technique applicable in this and related business education areas, and to evaluate the effectiveness of the critical-incident technique as a research method for determining critical requirements for teachers of business education skill subjects.

An adaptation of the research method known as the "critical-incident technique" was employed in this study. The critical-incident technique is basically a behavioral approach, consisting of a set of procedures for the collection and analyzing of observed behaviors in such a way as to reveal important information relative to the performance of a job or activity.
A critical incident is a written, detailed report of an observed classroom situation, practice, or incident involving a typewriting teacher in which that teacher's behavior was judged particularly good and/or appropriate, or, particularly poor and/or inappropriate by an observer. The observers who reported critical incidents for this study consisted of high school typewriting teachers and administrators, high school students enrolled in typewriting classes, and professional secretaries. The teachers and administrators were randomly selected from throughout the state of Arizona. The students were chosen by the administrators selected. The secretaries were randomly selected from the memberships of the three Arizona chapters of the National Secretaries Association. All of the critical incidents were obtained by means of questionnaires designed by the writer.

In order to be considered usable for the present study, each critical incident had to (1) describe something definite that a typewriting teacher did in the classroom while teaching typewriting, (2) describe the general intent of the teacher's behavior, and (3) tell about the results that occurred because of what the typewriting teacher did. A total of 294 usable critical incidents were collected from the observers and comprised the basic data for this study.
Each of the 294 usable incidents was examined, and the critical behavior contained in each was abstracted. By critical behavior is meant the specific action performed. The abstracts were carefully studied and those which were similar were grouped together. All of the critical behaviors seemed to fall into three categories. The abstracts under each category were again carefully studied and arranged into sub-categories; twenty-one sub-categories resulted.

At least one critical requirement was written describing the critical behaviors under each sub-category. A critical requirement is a descriptive statement in behavioral terms describing a significant behavioral pattern to which a typewriting teacher, to be effective, should conform. A total of twenty-six critical requirements were determined.

II. Conclusions and Recommendations

The adaptation of the critical-incident technique that was used in the present study was very little different from that used in a number of previous studies. However, compared with the two similar previous critical-incident-technique studies completed in the business education field, that is, the dissertations by Kessel and Kosy, the present study utilized two innovations.

57Kessel, op. cit.
58Kosy, op. cit.
First, the study by Kessel used observers found within a 50-mile radius of Madison, Wisconsin; and the study by Kosy used observers found within the city of Seattle, Washington. The present study, in an attempt to use a broader geographical scope, used observers from throughout the state of Arizona.

Second, because of their relatively limited geographical scopes, Kessel and Kosy were able to use the individual personal interview exclusively as their method for obtaining critical incidents. For a state-wide geographical scope, such an approach would be prohibitive in terms of time and expense. Therefore, for the present study, questionnaires were devised and used to gather written reports of critical incidents.

The final forms of the questionnaires which were mailed to the observers over the state of Arizona were quite simple. However, that very simplicity seemed to be troublesome in the long run; many of the critical incidents which were reported were long and rambling, unorganized, or difficult to understand, causing the writer unforeseen time and expense in the various analyses. The writer wishes to theorize that these difficulties probably could have been avoided somewhat had the questionnaires been more detailed and structured. However, considering the reasonably high percentage of returns and the relatively large number of usable
critical incidents which were obtained for the present study, it seems safe to conclude that the mailed-questionnaire method developed in the present study was successfully used to obtain written reports of critical incidents from over a sizeable geographical area.

The high school typewriting teachers were asked to report critical incidents performed by themselves. A large number of usable critical incidents were obtained from this group, in fact, more than one third of all the critical incidents reported in the present study. This caused the writer to conclude that the high school typewriting teachers who returned completed questionnaires for the present study were apparently quite able to report critical incidents performed by themselves.

The high school administrators reported the highest percentage of unusable critical incidents. Despite that fact, an average of one usable critical incident was received for every questionnaire sent out to that group. It seems safe to conclude that the group of high school administrators who returned completed questionnaires for the present study apparently were able to report critical incidents performed by high school typewriting teachers under their direction.

Of special interest were the questionnaires sent to high school students enrolled in typewriting classes, since
they were not sent directly to those students. Instead, they were sent indirectly to the students through the administrators of their high schools. In a few cases questionnaires were returned blank in such a fashion as to cause the writer to believe that they had never been distributed to students. The percentage of returns received from students was the lowest of any of the four groups. However, the percentage of blank questionnaires among their returns was also by far the lowest, as was the percentage of unusable critical incidents they reported. It seems safe to conclude, then, that the high school students who completed questionnaires for the present study were apparently able to report critical incidents performed by their typewriting teachers. Also, because of the fact that the questionnaires were distributed to the students by their high school administrators, it would appear that their high school administrators were willing for them to do so.

Also of special interest were the questionnaires sent to professional secretaries since that group of observers was further removed from the active aspects of the teaching of typewriting than any of the other groups. Although an especially high percentage of returns was received from this group of observers, more than half of the questionnaires returned were blank. The blank questionnaires, almost without exception, contained written comments
explaining that the recipients had studied typewriting so long ago that they could not remember any critical incidents worth mentioning. However, those secretaries who returned completed questionnaires appear to have been able to report critical incidents performed by their typewriting teachers. It apparently can be concluded that because of the lengthy interim between the dates when many of the secretaries actually studied typewriting and the dates when they received the questionnaire for the present study a large number who were apparently willing to report critical incidents were unable to do so. Because of this, the group of professional secretaries to whom questionnaires were sent did not prove to be as fruitful a group of observers as the other three groups.

The observers who returned completed questionnaires appear to have been able to report a sufficient number of usable critical incidents performed by high school typewriting teachers for the determination of a set of critical requirements for such teachers. The critical incidents seem to fall under three categories, and in terms of their various sub-category assignments, seem to warrant the establishment of at least twenty-six separate critical requirements for high school typewriting teachers.
The final list of critical requirements determined in the present study is, in many respects, quite similar to certain other previously published lists of desirable typewriting-teacher qualifications. Despite that similarity, the critical requirements determined in the present study take on added significance when it is considered that each was derived from a set of observed classroom behaviors. Because of this added significance it seems that in addition to being used by high school typewriting teachers as a guide for self-evaluation and self-improvement, the critical requirements derived in the present study should be used by high school administrators, supervisors, and department heads, to supplement other devices or means for evaluating the effective performance of typewriting teachers. Also, it is suggested that these critical requirements be given consideration by college and university officials who are responsible for training business education teachers for the secondary level, and by school administrators or officials responsible for planning in-service education programs for business education teachers.

Because of the similarity existing among the critical requirements determined in the present study and certain other previously published lists of desirable typewriting-teacher qualifications, it appears that the present study
was laborious and time consuming in relation to the results achieved. Therefore, it would seem to the writer hardly justifiable to recommend the undertaking of similar studies for determining critical requirements for teachers of the other single business education skill subjects. Instead, it would seem more logical, in the light of the past applications of the technique, to consider future critical-incident-technique studies for determining critical requirements for broader business-education-teacher classifications such as for teachers of skill subjects in general, or for teachers of non-skill subjects.

The following conclusions and recommendations seem to be warranted for the present study.

**Conclusions**

1. The mailed-questionnaire method developed in the present study was successfully used to obtain written reports of critical incidents performed by typewriting teachers from over a sizeable geographical area.

2. The observers who returned completed questionnaires were able to report usable critical incidents performed by typewriting teachers.

   (a) The high school typewriting teachers who returned completed questionnaires were able to report critical incidents performed by themselves.

   (b) The high school administrators who returned completed questionnaires were able to report critical incidents performed by typewriting teachers under their direction.
The high school students who returned completed questionnaires were able to report critical incidents performed by their typewriting teachers, and it would seem that their high school administrators were willing for them to do so.

The professional secretaries who returned completed questionnaires for the present study were able to report critical incidents performed by their typewriting teachers. However, because of the interim between the dates when many of the secretaries actually studied typewriting and the dates when they received the questionnaires for the present study, this group of observers did not prove to be as fruitful as the other three groups.

3. The body of critical incidents performed by typewriting teachers and reported by the observers for the present study seem to warrant the establishment of at least twenty-six separate critical requirements for high school typewriting teachers. The critical requirements for the effective performance of high school typewriting teachers, based upon an analysis of critical incidents, were determined as follows.

(a) The effective high school typewriting teacher maintains a pleasant, positive attitude toward the typewriting class. Also, he remains composed when addressing the typewriting class and the individual students in the typewriting class.

(b) The effective high school typewriting teacher avoids undue familiarity with his students.

(c) The effective high school typewriting teacher avoids relating personal experiences and matters except when they will contribute to the curriculum.

(d) The effective high school typewriting teacher serves as an example to his students by practicing what he teaches.
(e) The effective high school typewriting teacher maintains control of the typewriting class, remaining calm and dignified when dealing with classroom management and disciplinary problems. He also guards against (1) the formation of cliques and uncooperative groups of students within the typewriting class, and (2) accusing and disciplining students unfairly.

(f) The effective high school typewriting teacher begins each class period punctually in order to make use of as much of the class time as possible and avoids wasting class time with non-typewriting activities.

(g) The effective high school typewriting teacher makes sure that the typewriters, and other classroom equipment, receive proper care and treatment.

(h) The effective high school typewriting teacher uses a carefully planned, flexible student seating arrangement in the typewriting classroom.

(i) The effective high school typewriting teacher supervises the typewriting classroom by remaining in the typewriting classroom throughout the class period.

(j) The effective high school typewriting teacher plans various types of typewriting assignments with specific reasons in mind for them, and prepares and previews all assignments ahead of class time. He also takes pains to see that the students thoroughly understand each new assignment, allots sufficient time for the completion of each assignment, and sets a definite date on which each assignment is due.

(k) The effective high school typewriting teacher conducts carefully planned classroom typewriting demonstrations.

(l) The effective high school typewriting teacher becomes aware of the individual differences existing among students in the typewriting class. During the class period he circulates
among the students providing whatever individual attention seems necessary to help each student learn to typewrite correctly. He also gives each student special recognition whenever it seems appropriate.

(m) The effective high school typewriting teacher demonstrates and teaches setting of typewriter margin stops, instructing students how "to figure" margin settings for any desired line length, rather than having them memorize exact settings for various line lengths.

(n) The effective high school typewriting teacher, when demonstrating and teaching tabulation, makes extensive use of the blackboard to illustrate the various steps and procedures involved, making certain that students clearly understand the tabulation process before giving a graded assignment involving tabulation.

(o) The effective high school typewriting teacher gives careful thought and planning to the teaching of the centering process, teaches students to use the typewriter eraser, and stresses the importance of steady, even typing rhythm.

(p) The effective high school typewriting teacher teaches the typewriting of letters, emphasizing the different styles of personal and business letters.

(q) The effective high school typewriting teacher plans the teaching of manuscript typewriting for times during the school year when such knowledge can best be put to immediate practical use by the students. Also, when teaching manuscript typewriting, he makes use of demonstrations, blackboard illustrations, and bulletin-board displays to help take the "guess-work" out of such assignments.

(r) The effective high school typewriting teacher uses special drills designed to increase students' typewriting speeds, but carefully plans their use so that they do not overly frustrate the students. He establishes a
definite routine for testing for speed, uses a variety of copy material for speed tests, and takes precautions to see that the classroom atmosphere is as relaxed as possible when speed tests are being administered.

(s) The effective high school typewriting teacher uses visual devices such as wall charts and graphs to enable each student to compare his individual speed progress with that of the other students in the class. He helps each student set up a speed goal for himself and provides him with a form on which to keep track of his speed progression or regression.

(t) The effective high school typewriting teacher stresses the importance of accurate typewriting, using various special drills and exercises—often on a competitive basis—to encourage and build accuracy. He also trains his students to thoroughly proofread their work.

(u) The effective high school typewriting teacher, to encourage the use of typewriting as a personal tool, occasionally allows students to typewrite previously planned assignments such as personal letters and materials from other classes, but avoids letting the typewriting class be used as a stenographic pool for the faculty. He also provides students with opportunities to do creative work at the typewriter.

(v) The effective high school typewriting teacher, using demonstrations, outside speakers, etc., informs students of the various types of positions which are available to persons with an ability to typewrite. At appropriate times he discusses with the class such things as personalities, personal appearance, higher education, and other similar things of importance to a person using typewriting as a means of livelihood. Also, when students are sufficiently advanced, as nearly as possible simulates an office environment in the typewriting classroom.
(w) The effective high school typewriting teacher stresses the importance of correct spelling and grammar in relation to any finished, typewritten product.

(x) The effective high school typewriting teacher carefully plans classroom use of, and in many cases personally devises, such audio-visual teaching aids as enlarged reproductions of certain working parts of the typewriter, bulletin boards, tape recordings, blackboards, rhythm records, posters, and films.

(y) The effective high school typewriting teacher enlists the cooperation and aid of students enrolled in the typewriting class in setting up and carrying out such classroom activities as simulated office situations, demonstrations, and devising audio-visual teaching aids.

(z) The effective high school typewriting teacher sets up and follows a definite plan for assigning grades.

4. Because of the similarity existing among the critical requirements for typewriting teachers determined by the present study and certain other previously published lists of desirable typewriting-teacher qualifications, it appears that the present study was laborious and time consuming in relation to the results achieved.

Recommendations

1. The critical requirements for high school typewriting teachers should be used by high school typewriting teachers as a guide for self-evaluation and self-improvement.

2. The critical requirements for high school typewriting teachers should be used by school administrators, supervisors, and department heads to supplement other devices or means for evaluating the effective performance of typewriting teachers.

3. The critical requirements for high school typewriting teachers should be given consideration by college
and university officials who are responsible for training business education teachers for the secondary level.

4. The critical requirements for high school typewriting teachers should be given consideration by school administrators or officials responsible for planning in-service educational programs for business education teachers.

5. Assuming that such studies would prove to be laborious and time consuming in relation to the results achieved, as the present study seems to have been, it is not recommended that similar studies be undertaken to determine critical requirements for teachers of other single business education skill subjects. Instead, it is recommended that future critical-incident-technique studies be considered for determining critical requirements for broader business-education-teacher classifications such as for teachers of skill subjects in general, or for teachers of non-skill subjects.
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APPENDIX A

THE CRITICAL INCIDENTS

CATEGORY I: PERSONAL TRAITS AND HABITS OF TYPEWRITING TEACHERS

Sub-category I: Attitude Toward Pupils and Class

Effective Critical Incident Reported by a High School Administrator

At the first of the school year the teacher shouted at a timid girl and frightened her. He had a tendency to be very loud—too loud. He was just carrying on the usual classroom activities. As a result, the girl tried to drop typing.

Ineffective Critical Incident Reported by High School Administrators—2

The teacher had a habit of talking too much, often with a nagging tone. His general objective was to keep his typing class under control. As a result, the teacher did not create the best situation for a happy and cheerful classroom.

The teacher observed was very strict with her students, forbidding them to chew gum in class, talk while she was talking, sharpen erasers after class had started, and, above all, fool with their machines while she was talking or giving instructions. One time while she was giving instructions the bell on one of the students' typewriters rang. Immediately she stopped giving instructions and yelled at the student (calling out his name) who she thought had been fooling with his typewriter while she was talking. It just so happened it was not the student she yelled at who had been fooling with his typewriter. Her objective was to maintain order in the classroom at all times. Although she got the order and attention of the whole class, she caused much embarrassment for the innocent student at whom she had so rudely yelled.

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Effective Critical Incident Reported by a High School Student

The teacher always insisted in a quiet way that no one talk in her class. Of course, there were those at the begin­ning of the year who tried to disobey her and get away with it, but she soon put them in order. Her objective was to maintain an atmosphere in which a person could concentrate. As a result, the general atmosphere of the room was most impressive. As you walked through the door you could tell that everything would be quiet except for the noise of the typewriters.

Ineffective Critical Incidents Reported by High School Students—4

It had been a rather trying morning, as the annual staff was busy taking club and group pictures. They were continually taking kids in and out of the typing room and the teacher was getting rather "hot and bothered." When she was unable to find the stapler (she had mislaid it) she began screaming and scolding the class. When she lost control of herself she also lost control of the class and discipline went out of the window. At the height of her fury she shouted, "I'm getting sick and tired of this whole goddam mess; you can all go to hell for all I care." Whereupon some wise­acre piped up something to the effect that the class was getting goddam tired of her, and thereupon bedlam reigned until the bell rang. Her object was to discipline and control the class. She later admitted that she had behaved rather poorly and was quite ashamed of her conduct. The students thought that it was a rather stupid way of handling the affair and that it could have been handled in some more suitable way.

The teacher was sort of a grouch. Instead of asking his students to be quiet he would stand up in front of the class and practically scream, "Shut up!" This was a frequent happening. His object was to quiet the class. This made an unpleasant atmosphere and the students were very rebellious.

The teacher had a habit of yelling. Once when a boy wasn't paying any attention to the teacher and was playing with parts of the typewriter the teacher yelled for him to tell her everything she had just explained to the class. When he couldn't explain, she yelled at him to pay attention the next time. Her general objective was to impress the boy
and the class. The whole typing class learned to be quiet.

The teacher always started out the class by telling how terrible the class before had been. If the class didn't do better than the one before, the students had to buy her candy bars. Her general objective was to encourage the class to do better work. As a result, the students became nervous and tried too hard not to make any mistakes and ended up making more. So nothing was really accomplished.

**Ineffective Critical Incidents Reported by Professional Secretaries—3**

She never smiled! She was attempting to be very firm. Her persistence periodically drove her students to the infirmary for aspirin.

The teacher often gave long tirades about the "girls of today" and their attire. Her objective was to admonish the female students in her class. There were a number of boys in the class and these tirades did not interest them. Gradually, typing did not interest them very much either.

The teacher was a grouch; she griped all the time. Whether her students got their lessons right or wrong made no difference. Her objective was to control her students. As a result, some of her students dreaded going to class every day. Some developed such bad attitudes it is a wonder they ever learned to type.

Sub-category B: Maintaining Appropriate Classroom Decorum

**Ineffective Critical Incident Reported by a High School Administrator**

The teacher, a man, had a theory which he expressed in two ways. One approach was to spend much time in kidding a particular student, sometimes to the point of smutty remarks. The other method was to fondle the girls in his class. Sometimes this went a little too far. According to his theory, those two approaches would prepare young women to meet the type of situations that might be encountered by them in employment. As a result, he lost his position.
Ineffective Critical Incidents Reported by High School Students—3

There were two teachers in school who could be one of the kids and still maintain excellent order, but the typing teacher, Miss ---, was not one of them. When she lowered herself to the level of the students (and this happened altogether too frequently) she became the most silly and juvenile person in the world. Her objective was to make friends with the students. Needless to say, this promoted anarchy.

The typing teacher had the habit of arguing about religion. One day she argued very vehemently with a group of three or four students, violently attacking their religious beliefs. Her objective was to run down their beliefs. As a result, another teacher was compelled to quiet her down.

Miss X had little or no social life. However, Miss X was quite interested in the "love life" of her students. During a timed writing or practice she would sit and talk with one of the girls about her "love life" problems. Miss X seemed to have the perfect solution to every problem but her own. Miss X seemed to be satisfying her curiosity. No harm resulted from this, but her students felt that it was none of her business—especially in the classroom.

Sub-category C: Revealing Personal Experiences and Matters

Effective Critical Incident Reported by a High School Student

One day the typing teacher made an attempt to familiarize his students with the Civil Service tests. Instead of teaching only the information given in the textbook, he told of his personal experiences while working for the Civil Service in the Pentagon in Washington, D.C. He explained that through hard work and determination he was able to advance in his position. He stated that doing more work than he was required to do helped him attain periodic promotions. His object was to point out that through hard work and determination a person can usually achieve his goal. He was also trying to prove that doing more than is required of one can help a person in many ways. By telling his personal experiences he attracted his students' attention to the Civil Service and familiarized them with the type of work it deals with.
Ineffective Critical Incidents Reported by High School Students—2

Just after the class had finished a unit on filling out job applications and were proceeding to the next unit, the teacher, while grading the application papers, suddenly came across one person's paper saying that her birthplace was a town where he had been stationed during the war. At once he told everyone to stop typing and proceeded to tell of his experiences during his stay in that town. The members of the class were all about halfway done with the assignment, but he took up the rest of the hour telling of his adventures. His objective was to entertain the class by recalling his adventures. Of course, most everyone was glad to get out of the work for the next half hour, but the class still had the same deadline to meet. Consequently, some people didn't get their papers in on time and received point deductions.

The teacher, on several occasions, got carried away telling his life stories, wasting the whole period for everyone. The object was to entertain the class. This didn't help the students, some of whom wanted to type because they were behind and needed to catch up desperately. Instead of doing their work they were compelled to sit quietly and listen to him gab the period away.

Ineffective Critical Incident Reported by a Professional Secretary.

The teacher talked of home and personal matters too much. She never seemed to be prepared, came late to class, and seemed hesitant to start the class. She didn't even have the appearance of a teacher. Her general objective was to try to be a typing teacher. She had a poor influence on many students.

Sub-category D: Serving as an Example to Students

Ineffective Critical Incident Reported by a High School Typewriting Teacher

While explaining a certain problem the teacher made a mistake. One of the students caught the mistake but the teacher would not give in at the time. The teacher wanted to stall until he had time to look into the matter further.
As a result, the student was very upset with the teacher's behavior. This led to a lack of respect for the teacher regarding his knowledge of the subject. Later, the teacher apologized and corrected the error.

Effective Critical Incident Reported by a High School Student

The teacher stressed good posture and always maintained good posture herself. Her objective was to impress upon her students the importance of good posture. The results that good posture produced were wonderful. In several cases a student's typing improved.

Ineffective Critical Incidents Reported by High School Students—4

The teacher exhibited a poor manner of sitting and walking—posture which he could have corrected. The teacher was an example. The students sometimes had a tendency to imitate the teacher's poor habits.

The teacher constantly told the class, "When erasing a mistake, move the carriage all the way over to the side so the erasings won't fall into the machine." However, she was often guilty of not doing this herself. She was trying to teach this technique so the machines wouldn't get fouled up. Her own actions sometimes set a bad example.

The teacher sometimes acted like her classroom was a beauty parlor. Her object was to put on her lipstick and powder her nose. As a result, the students were distracted and made fun of her after class.

The teacher was always urging her students to get to class on time and to start typing right away. Often, however, she was late herself. She was trying to teach the students to be punctual. Not only did her tardiness set a bad example, but the class had to wait until she came and put the typing assignment on the board in order to start typing.
Effective Critical Incident Reported by A High School Typewriting Teacher

The teacher feels that being on time and settling down to work immediately with no "jabbering" after the bell rings are "musts" in typewriting. One day two girls near the window and two over near the blackboard were talking quite loudly after the bell rang. The teacher called the names of each out above their noises and asked them to get in the hall outside the classroom doorway. There was quite a startled look on the faces of each receiving the reprimand. The object was to reprimand these students for their poor behavior. After standing in the hall for ten minutes where passing students and teachers were asking them the "why's of their being there," they were an extremely meek group on their return, and thereafter.

Ineffective Critical Incident Reported by High School Typewriting Teachers--4

The teacher caught one of his students eating candy during class. The student had a bag of candy in her desk. While the remainder of the class had his attention, he picked up the bag and tossed it in the waste basket. He then asked the girl to come in that evening to see him. The whole affair was very dramatic and an immediate hush was heard from the class. The objective was to embarrass and make an example of the student. Although the student was embarrassed and never ate candy in class again, the teacher worried lest he had displayed improper behavior. He felt what he had done was probably cruel and inappropriate.

The teacher reproved a student severely for some "horse play." She was attempting to impress upon the class the danger of damaging expensive equipment. The student became offended, and instead of meeting the situation calmly the teacher became angry and sent him from the room. Even though they later worked out the problem, she felt she had handled the situation poorly.
Because they were not paying attention when she gave directions, the teacher refused to give a group of students credit for a problem they typed. In front of the whole class she told them that they were not going to receive credit, without explanation of why this was being done. Because of their inattention, when time came for the class to start to work, they asked about things which had already been explained and discussed. The object was to get these students to pay attention. The students received no credit on the problem and also received no credit for the next problem because of the same fault. After the second problem, she had to tell them why they were receiving no credit.

One day the teacher was asking for raised hands by those students making perfect copies on timed writings. A certain chap kept raising his hand. Never before had he made a perfect copy of anything. So the teacher told him to quit "lying." He stood up bristling and informed the teacher not to call him a "liar." The teacher went to the student's desk, grabbed his paper, and checked it. There wasn't a single mistake! The object was to shame the student for lying. The teacher apologized and learned right then and there never to accuse someone until he had all the facts and had checked into the situation thoroughly. However, after this incident the students checked their papers more closely, and the teacher kept his tongue more closely under control.

Effective Critical Incidents Reported by High School Administrators--2

A few minutes after class had begun, and with some 32 typewriters working and making the usual noise, one of the machines knocked a girl's purse off the typing table and the contents spilled out over the floor. All machines stopped, causing a stillness which increased the embarrassment of the girl whose purse had fallen. The teacher immediately took command of the situation and in a very calm voice pointed out that if they were to hold positions in large offices they would need to have presence of mind to continue right on with their work under such circumstances. She pointed out that perhaps the nearest person to the individual who had the mishap could lend a hand. Her general objective was to teach the students to maintain self-control under such circumstances. The calmness as evidenced by the teacher in her explanation seemed to make a lasting impression on the students. They, no doubt, in the future would meet such an emergency with the same calmness as she demonstrated.
The teacher was considerate of a pupil's feelings in the presence of the class by calmly minimizing an accident. She is friendly in manner and tone of voice to all pupils, and in this instance, besides being calm, cordial, and courteous, her object was to be kind and to display good manners. As a result, the accident was minimized to the point of keeping an embarrassing situation from becoming a major situation.

Ineffective Critical Incidents Reported by High School Administrators—4

On one occasion the teacher failed to understand the import of ridicule on an individual. His objective was to maintain order in the classroom by ridiculing the student in front of the class. By failing to realize this, the attitude of the entire class was affected, and, because of this lack of realization, several students requested transfer to other courses.

The typing instructor had a tendency to be too lax in daily disciplinary action; students accordingly took advantage of the situation. A student who had taken advantage of this situation was vehemently berated before the entire class. The occurrence was actually the fault of the instructor because he constantly ignored the same situation day after day with a majority of his students. His objective was to attempt to correct a situation which had become serious. This was a failure, as the students merely resented the attempt and felt the way in which he attempted to relieve a bad situation was patently unfair to the student involved.

The teacher slapped a boy across the face one day in typing class. She was handling a discipline problem in this way. As a result, parent-teacher relations and student-teacher relations became strained. It was awkward in all respects.

A girl fainted one day in the typing class. The teacher became hysterical herself, which made things much worse. She was trying to take care of the emergency. The students behaved at the time but laughed at her behind her back for having such lack of control over a classroom situation.
Effective Critical Incidents Reported by High School Students—5

The teacher exhibited an exceptional ability to calmly settle disputes among students. The teacher was trying to get the students to work well together as happy and friendly co-workers. The result was wonderful because everyone came to class willing and ready to go to work without delay.

A group of three or four girls in the last-hour typing class were being quite consistent in their actions. They would either come in tardy or ditch typing completely. When they did come to class, they sat in the back corner and did practically nothing in the way of typing. Dates, letters, gossip, and boys were, however, a different story. Before long the teacher came to the conclusion that something had to be done. She talked to each of the girls individually about the problem, transferred one of the girls into an earlier class, separated the others, and lowered their grades for being tardy. The object was to discipline those students. As a result of this action, an orderly classroom evolved. After this the girls did their work and their speed, accuracy, and grades steadily improved.

For some time the typewriting teacher had been having a discipline problem with a certain boy in the class. One day the problem seemed to come to a head—the boy made a very sarcastic remark about a technique cue which had just been read. Instead of getting mad and acting in a rash way, the teacher remained calm and asked the boy to read the next paragraph. Each day after that the teacher gave him something special to do. Her object was to make him feel important without causing a scene. After that the boy became most cooperative.

At the beginning of the school year all students were told to be patient in learning to type. During the year when a student made several mistakes in a row, he got mad and cussed. For this he was sent to study hall for a week. The teacher was trying to teach patience to all the students. He didn't want any student to form bad habits of any kind when a mistake was made, and he also was trying to teach the students to think before they acted. As a result, no other student was ever called down for doing something out of order when a mistake was made.
The teacher was very strict with people who came to class late. She seemed to have no patience with persons who didn't understand the importance of promptness. Her general objective was to teach her students to be aware of the importance of promptness. As a result, people were seldom tardy to typing class.

Ineffective Critical Incidents Reported by High School Students—5

The teacher did not allow gum chewing in class. When he caught students chewing gum in class he made them write, "I will not chew gum in class," a certain number of times. The first time it was usually 100 times; the second time, 300 times. One day when he was in a bad mood he assigned a student whom he caught for the second time, to write the sentence 1000 times. The teacher's purpose was to keep discipline. As a result of this incident, the student chewed gum more in class to try to make up for the extra 700 times he had to write the sentence.

One Friday, a few minutes before the bell, a boy covered his machine and started talking to another person. This made the teacher angry, for she really told him off. She then gave the whole class a problem to do three minutes before the bell. She was attempting to discipline that boy and the class. By losing her temper she made some students angry and had a discipline problem for a time. Her students thought if they could make her angry it would be fun. She always talked so loud anyway.

There was a group of boys in the typing class who were always disturbing others and gabbing instead of typing. The teacher failed to discipline those boys. The boys should have been punished to keep them from goofing off. Without discipline the boys kept on behaving in the same manner and even got worse. They were capable of better work than their grades indicated if they had typed rather than goofing off.

The teacher did not maintain discipline. He warned his class often but never carried out his threats. His object was to keep order by threatening only. The class had about thirty students in it and when everyone got to talking the teacher couldn't teach anything. When he called the class down, it wasn't but just a few minutes until
everyone was talking or running around the room or typing while he was trying to teach.

The typing teacher was very critical and often accused the wrong persons of talking in class. Her object was to maintain order. As a result, many students resented her.

**Effective Critical Incident Reported by a Professional Secretary**

The teacher was a man who was very strict and well organized. One thing he stressed was punctuality. If a student was late twice during a six week period he was given extra assignments which were graded very carefully. His objective was to stress the importance of punctuality. As a result, his students became aware of the importance of punctuality.

**Sub-category B: Conserving Class Time**

**Ineffective Critical Incidents Reported by High School Typewriting Teachers—2**

The teacher developed the habit of allowing her classes too much time for warm-up. This was not directed toward any specific aim. Therefore, a degree of boredom at the beginning of the hour was evidenced.

When a new German student entered the typing class, the teacher took advantage of the fact that he could understand and speak German to converse with her in her native tongue for some time. The rest of the class was amused, even though they couldn't understand the conversation, and rather relished the "break" in the period. The general objective was to practice and show off his ability to speak German. Nothing devastating or damaging resulted for the class, except loss of time. The teacher felt afterwards that he had not been fair in taking class time to satisfy his own personal whim.

**Effective Critical Incidents Reported by High School Administrators—2**

Miss — assigned a student in each of her classes to be the class secretary. This meant that that student
took roll each day, recorded excuses, etc. The result was time saved for the teacher to teach more typewriting.

The teacher had the habit of starting the class the minute the bell rang every day by writing on the board and at the same time announcing the page or lesson or drill number with an appropriate remark like, "Let's go!" or "Warm up!" or "Keep the carriage moving." The teacher's objective was to establish good work habits, to discourage tardiness, and to use every minute of the class period for typing. As a result, more employable skills were developed by more students.

Ineffective Critical Incident Reported by a High School Administrator

The teacher "called" roll every day near the beginning of the typing period. Her objective was to keep accurate attendance records and to write the report which went to the office. As a result, both the teacher's and the students' time was wasted. A seating chart, with a glance or two about the classroom, would have sufficed without taking any of the students' time.

Effective Critical Incidents Reported by High School Students--2

Every day the teacher had the conditioning practice on the blackboard when the class came in so that students could start practicing it as soon as they came in the room. The object was to aid the students in not wasting the first few minutes of each class period. This made it possible to have the students' fingers limbered up and ready to start on the lesson when she had finished the roll.

Realizing that it is much easier to type in a quiet room where you can concentrate on your work than in a room where everyone is talking, the teacher always quickly told the students exactly what to do and let them go at that. Her general objective was to maintain a good, quiet classroom where she could give lots of individual help. This gave the students a feeling of responsibility and individuality.
Effective Critical Incident Reported by a Professional Secretary

Each week the teacher assigned a definite group of warm-up drills. It was understood that there was to be no typing in the room during the ten-minute passing period between classes, and the students were encouraged to do their visiting at that time. They were to be at their desks and could have their machines set for drill work and paper in them. When the class bell rang at least two-thirds of the group were "ready-to-type" and started the keys clicking on the warm-up drills. The slower groups, hearing this sudden spurt of energy, even if not conscious of the bell having rung, would settle immediately, thereby making use of at least part of the five-minute drill period. The teacher then called for the attention of the class and was ready for the work of the day. The teacher's objective was to teach her students the important business attitude that there was a definite minute when work must be started in order to accomplish what they intended to for the hour. Through this procedure the teacher maintained excellent discipline.

Sub-category C: Managing Classroom Equipment and Supplies

Effective Critical Incident Reported by a High School Administrator

The teacher was meticulous in teaching his students to take care of the equipment, especially typewriters. He always made sure that this teaching was put into practice. His general objective was to train his students to take care of expensive equipment such as typewriters. As a result, there was a minimum of typewriter repairs necessary.

Ineffective Critical Incident Reported by a High School Student

The teacher was not strict about the care of the typewriters. The intent should have been to keep the typewriters in better condition. The result was that several of the typewriters were in poor shape.
Effective Critical Incidents Reported by Professional Secretaries—2

The teacher stressed the fact to her students that the typewriter was one of the expensive machines that their "future bosses" must invest in and that it was up to the operator to keep it in good condition at all times. To bring out her point she made the comparison to the importance of keeping an automobile in good condition in order to arrive at one's goal. Her object was to teach her students to treat the typewriters with respect. As a result, the students developed a careful attitude toward the equipment.

The teacher repeatedly cautioned her class about keeping the typewriters clean, especially about letting eraser crumb fall into the mechanism of their typewriters. Her objective was to teach her students to keep their typewriters in good condition. As a result, the typewriters in the room were usually in working condition.

Ineffective Critical Incidents Reported by Professional Secretaries—2

The teacher issued a certain number of sheets of paper each day. In turn, she required her students to turn in the same number each day. She was thereby stressing the importance of making no errors. She stressed making no errors to the extent that her students became overly conscious of it.

The typing teacher kept stressing the fact that it was the taxpayers' hard-earned money that was used to purchase the typewriters in the room. Her object was to impress upon her students how important it was to treat the equipment with respect. Therefore, the students were subjected to demerits if they so much as sneezed on a typewriter and got a germ on it.

Sub-category D: Planning Classroom Seating Arrangements

Ineffective Critical Incidents Reported by High School Typewriting Teachers—2

The teacher moved her desk to the back of the typing room where she could be facing the backs of her students. She thought that perhaps her students might feel more relaxed
in having her out of sight, and it also might eliminate any
tendency on their part to exchange a few remarks to students
nearby. She sensed at once that they all seemed to have a
"let-down" feeling. Their enthusiasm had a negative aspect
and they seemed frustrated. She soon moved her desk back to
the front of the room.

In his typing class the teacher set up "combat teams"
by rows. The idea was to build up a sense of classroom
competition. It was not possible to balance every row equally
with the others. The good kids were very good and the bad
ones got worse under excessive pressure. The results were
generally poor; the fault seemed to be in too much pressure
and unbalanced teams.

Effective Critical Incidents Reported by High School
Students—3

One of the exceptionally good things that Miss ---
did this year was to set up a rotation system whereby almost
every member of the class used almost every typewriter in
the room during the course of the year. Her object, of
course, was to acquaint her students with the many kinds of
typewriters in general use so that they would not be handi-
capped in obtaining typing jobs. As a result, the students
all got their fair share of both good and bad machines and
became quite well acquainted with all kinds.

The typing teacher had a student who couldn't type
while looking at the book. So she switched that person
to another typewriter which had blank keys. Her general
objective was to help the student learn to type without
looking at the keys. This taught him to type while looking
at the book without looking up.

The teacher, at the beginning of the year, moved a
boy to another seat because he was bothered by his seatmate's
bell and kept returning his carriage at the wrong time. The
objective was to help the student learn to listen only for
his own bell. This helped the boy relax and he did better
work from then on.

Ineffective Critical Incidents Reported by Professional
Secretaries—2

The teacher had his students sit in the same seats
all year. His objective was to let each student continue
to type at the typewriter with which he was familiar all year. At least one person suffered because of this. She was a slow typist and was often frustrated because the person she had to sit next to all year was a speed demon.

The teacher arranged her classroom seating arrangement so that one of the fastest students was seated between two of the slowest students. Her intent was to persuade those two students to work to bring up their typewriting speed to keep up with the fast student. However, the result was that on speed tests both slow students would become completely frustrated in trying to keep up with the fast student, and would do far less than they were really capable of doing.

Sub-category E: Providing Classroom Supervision

Effective Critical Incident Reported by a High School Student

If Miss --- ever was asked to keep her room open after school so that her students could type there, it was very seldom that she didn't. She habitually stayed until five o'clock and on numerous occasions as late as eight-thirty or nine. One evening just before report cards came out, she stayed until nine-thirty helping a half-dozen students get in their mountains of "do-overs." Her object was to help those students who didn't have typewriters at home. As a result, she is quite well liked by her students, except for a vociferous and rowdy minority who dislike her attempts at discipline.

Ineffective Critical Incident Reported by a High School Student

The typing teacher was always leaving the room. He had to attend to outside activities. The students would have liked typing a lot better if the teacher had paid more attention to his class instead of his outside activities.

Ineffective Critical Incidents Reported by Professional Secretaries--2

The room was large; the class was large and apparently full of freshman boys who had no place else to go.
The teacher often left the classroom during class period. The teacher was head of the Commercial Department and, as such, often had to tend to some business outside the classroom. Every time he left, the "purposeless" boys would shout, throwing wads of paper across the room. It was impossible to concentrate on typing.

The typing teacher was hardly ever in the room to give instruction or guidance to any of the class members. He always seemed to shirk the responsibility of staying in the classroom. Whenever a student wanted to ask him anything, he could usually be found in his little office reading the paper or gabbing with his secretary. He apparently wasn't really interested in teaching typing. As a result, the class was very unruly, typewriters were always out of order, very little was actually accomplished, and very few of the students were interested in the subject.

CATEGORY III: INSTRUCTIONAL PROCEDURES USED BY TYPEWRITING TEACHERS

Sub-category A: Handling Assignments

Effective Critical Incidents Reported by High School Typewriting Teachers—7

The teacher was concerned because apparently her students were failing to understand the instructions to certain assignments. Many did them wrong and others took a long time getting started. She suspected that many times when the directions were being read the students were daydreaming, and that she, herself, was not being very specific. To rectify the situation she had the students put everything off their desks except their typing books. She then had different students read the directions, and she explained each paragraph as they read it. The objective was to improve the giving and understanding of assignment instructions. The teacher found that the new system worked much better and that at least 90 per cent of the students knew exactly what to do.

After explaining and demonstrating horizontal and vertical centering in detail, the teacher had his students do practice problems while he helped them individually and
checked to see how they were doing. Not until he was sure they could type such problems did he assign problems from the text to be graded. The purpose was to prevent the need of too much individual help later on with horizontal and vertical centering. As a result, only two students needed additional help with this sort of assignment.

In his advanced class the teacher gave an assignment which was a special project consisting of mimeographing a program. He gave the students two class periods to complete the assignment, knowing this would not be time enough for all the students. His objective was to stress the important role that meeting deadlines plays in office work. Although all of the students met the deadline and received above average grades, several had to come in after school and work until 5:30 in order to do so. The slower students showed a stick-to-itiveness that was admirable. All students displayed a good deal of satisfaction in completing their work and producing a good quality project.

When the teacher introduced typing of outlines in her beginning class she passed out a mimeographed copy to each student of the directions they were to use set up in outline form. The object was to aid the teaching of typing outlines. This procedure was quite effective because it not only provided the students with a copy of the directions they were to use but made them able to see how the directions were applied. In a class of forty students, only four or five failed to understand the directions.

This year the teacher arranged almost all of the assignments for her beginning typing students on a competitive basis. They either worked for point accumulation on problem work or perfect lines in drill work. She had a number of variations on accumulation of points; sometimes their grades were based on a daily score, such as perfect lines of typing, and sometimes they would accumulate points for a week. The teacher's object was to keep all of her students "pushing" every second of the time they were at their machines. She found that the students worked much closer to their full capacities than when they were just given assignments to turn in.

When teaching her advanced typewriting classes to cut stencils and operate the mimeograph machine, the teacher duplicated detailed instructions for each operation. The object was to familiarize the students with the steps in operating the mimeograph. As a result, when each students' turn came, questions were cut to minimum.
Since many of his students thought they could type much better than they actually could, the teacher gave them a very difficult assignment without explanation. The object was to make them realize their limitations. This helped them not only see the limit they had reached, but it also made many of them realize that there are a great many things that must be considered before a person is a good typist.

**Ineffective Critical Incidents Reported by High School Typewriting Teachers—12**

The teacher felt that she had given too many and too detailed instructions on problems throughout the year. Her objective was to teach the students to set up problems properly. As a result, the students were "doodled" rather than being allowed opportunities to experiment.

The teacher confessed that she often failed to prepare for her typing class. This occurred, especially when she was ready to present new assignments. As a result, the students wasted time and asked many unnecessary questions during the semester.

In technique improvement work the teacher did not stress the real objectives of the work. She asked the students to read the technique cues, then do what they said. The object was to improve typing technique. The students failed to read the technique cues; therefore, the sentences were not effective.

The teacher failed to explain a payroll-sheet problem fully to her class. She didn't mention that they should have correct figures before going on to the next job. The object was to teach the typing of payrolls, with salaries, wages, and deductions. Out of a class of twenty, she had no less than seven students who had made a mistake on the problem, resulting in incorrect answers for three out of ten jobs.

The teacher took time to discuss with and demonstrate to the class how they should use carbon paper, correct errors on carbon, etc. However, he failed to allow the class enough time to finish their "carbon" problem. He gave them twenty minutes when they should have had thirty. The object was to teach correct usage of carbon paper when typing. Most of the students left the class feeling they had not accomplished what they were supposed to.
In presenting the initial problem in justifying the right margins the teacher completely overestimated the ability and typing know-how of her class. The object was to teach the class how to "justify" a right margin so it would be completely even like the left. Instead of using simple mimeographed problems a day in advance to lead up to the problem, she foolishly followed the textbook presentation and wound up with a standard of accomplishment that was frustrating to even the best students in the class. What should have been a tedious but not difficult typing situation turned out to be a problem whose difficulty was out of all proportion to its importance.

During a unit on typing business letters the teacher did not thoroughly read the problems to be typed in the lesson and, therefore, did not anticipate the many questions that would arise. The general objective was to teach the students to type business letters. Many questions came up—to the point where she had to interrupt the class and give a general explanation rather than answering each question individually.

On several occasions the teacher misinterpreted the intent behind particular lessons in the text. The teacher was striving to do a good job, but failed to do adequate preparation. The results included a loss of faith by the teacher concerning his own competency in addition to students doing work which might have been classified as "busy work" without a known objective or purpose.

Early in the second semester the teacher reverted to the daily assignments like she had used for a short time during the first semester. This was not good, since by that time there was sufficient individual difference in speed so that it was difficult to take care of those differences in a fifty-five minute period. The objective was to vary the classroom routine. The teacher felt compelled to go back to her usual practice of giving unit assignments which had sufficient leeway to take care of individual differences.

The teacher permitted his students to rely upon their own judgments about finishing and handing in regular assignments. The object was to teach the students to plan and use their time wisely. The result was that some students began wasting time, others became clock watchers, and many fell far behind in the assignments.
The teacher sometimes tried to rush the students too much on their jobs. The general objective was to simulate office situations where speed is important. As a result, accuracy was sacrificed. The students seemed to go to pieces easily if hurried, indicating that this emphasis on speed probably should be delayed until second-year typing.

On several instances the teacher turned her students loose to type problems without giving them adequate demonstrations or explanation. The object was to force the students to "dig it out" for themselves. Wrong initial learning resulted. If this was not corrected soon, wrong habits resulted.

**Effective Critical Incidents Reported by High School Students—3**

The week of the basketball tournament the teacher did not give any tests or make any difficult assignments. The object was to promote extra-curricular activities. In other words, the students who were playing in the tournament would not have to face too much make-up work. As a result, the teacher got along better with his students.

The teacher varied the typing techniques that were to be used by never giving an assignment which involved the same technique twice in a row. The object was to make sure that a certain technique was not over emphasized at any one time. The students found that this alternating of techniques allowed time between problems to obtain complete understanding of each technique.

The teacher did not always follow the instructions given for each assignment in the textbook. She usually told the class easier ways to do the assignments. Her objective was to make the students better understand what they were supposed to do. As a result, her typing class was both interesting and enjoyable.

**Ineffective Critical Incidents Reported by High School Students—7**

When the typing class was beginning an entirely new area of study, using a set of timed problems, the teacher gave very general instructions and then started the clock immediately. After that, no questions could be asked. His
purpose in not giving more specific instructions was to make the students think for themselves. As a result, the entire class ended in a state of confusion. The students got off on the wrong foot and more time was needed to straighten them out.

The teacher had the habit of letting the students proceed with their work while she talked to them and gave them instructions. The object was to give the class the instructions for the day's assignment. As a result, often the students did not get their instructions straight; it was hard for them to concentrate on what they were doing while trying to listen to the directions.

If there was something to be read in the typing textbook, the teacher usually called on a student to read the material aloud. Then the teacher explained what was read. The teacher's objective was to clarify the material in the textbook. The students paid little attention while the material was being read aloud because they knew the teacher would explain it to them later.

Once, when the teacher gave instructions for a typing test, she did not explain plainly enough for all of the students to understand what was expected of them. Her objective was to test the students. This inefficiency caused some of the better students to fail the test because they did not speak up and say that they didn't understand the directions.

The teacher did not insist that assignments be turned in by a certain time. If someone wanted to take a day or two out of regular typing to write a letter to a buddy or something, he could do so without fear of getting behind. The purpose of this was to give the students who were not so fast a chance to do all the work assigned. As a result, both slow and fast students did a lot of goofing off.

When the class started typing legal documents, the teacher simply told the students to follow the instructions in the textbook. Her objective was for the pupils to get what information they might need from the textbook. As a result, the details of the assignment were vague to many pupils.

When the members of the class were typing their manuals, two or three pages were assigned each day. The
students who did not get that much done could always come in at any time and do some extra typing. The manuals were due on a certain date, but several weeks later the teacher was still accepting them. Her objective was to give the students plenty of time to finish their manuals. This made the students think that they had the stronghold and could take their own time doing anything.

**Ineffective Critical Incident Reported by a Professional Secretary**

The teacher assigned several months' lessons at one time, stressing the importance of being able to follow her instructions. However, she did not indicate exactly when each lesson was to be handed in. Her general objective was to teach the students responsibility and to discipline themselves to think for themselves without relying on her for every small detail. Some students relied on their fellow students to explain what had already been fully explained when the lessons had been assigned by the teacher. Not knowing exactly when to hand in each lesson was also very confusing.

Sub-category B: Giving Classroom Demonstrations

**Effective Critical Incident Reported by A High School Typewriting Teacher**

The teacher would seat herself at a machine in the center of the classroom where everyone could hear her. She would first demonstrate improper and proper stroking techniques, posture, and keyboard approach, asking the students to watch and listen carefully. She would then have the class type with her for a few minutes, then a few students individually, then altogether as a group. They then continued their daily warm-up and assignment as she checked them individually. The main objective was to demonstrate proper posture, keyboard approach, and especially stroking technique. She found that her method was a great aid in improving her students' stroking ability, in improving accuracy, and in improving general techniques such as keeping eyes on copy, wrists still, and quick carriage return.
Ineffective Critical Incidents Reported by High School Administrators--2

In the early part of the year, the teacher was attempting to demonstrate proper stroking. She allowed some of the students to use their machines while attempting to teach the remainder of the class. Her general objective was to teach proper stroking. As a result, a portion of the lesson had to be repeated the next day because the pupils who were typing instead of listening did not pay attention to the instructions.

When the teacher was attempting to teach the use of the keyboard, she had all the students gather around her at the typewriter. Her general objective was to demonstrate the use of the keyboard. The discipline became unbearable because all twenty-five students couldn't see and she lost their attention.

Effective Critical Incidents Reported by a High School Student

The teacher gave a very good demonstration, using the demonstration stand, on the correct way to stroke the keys. Her objective was to teach the students correct stroking. After this demonstration not one person in the class again asked the teacher, "How do I get such uneven typing?"

Ineffective Critical Incident Reported by A High School Student

The teacher did not teach his class how to change ribbons. When a student's machine needed a new ribbon, he showed that student how to do it, but not the rest of the students. The object was to acquaint the students with something every typist should know. Even the students who had had two years of typing from this teacher could not change typewriter ribbons.
Effective Critical Incidents Reported by High School Typewriting Teachers--4

All semester the teacher worried over a girl who quite consistently turned in papers with three or four spaces between paragraphs rather than two. She talked with the student and demonstrated for her several times, but to no avail. Finally she asked the girl to demonstrate to her and thus was able to discover what she was doing wrong and correct it. The general objective was to correct a line-spacing fault of an individual student. The teacher learned that demonstration is just as effective in teaching the teacher as in teaching the class. She felt that if she had watched the student more closely early in the game they both would have rid themselves of the problem much sooner.

The teacher took time out to analyze the individual problems of this student and prescribed a series of drills individually suited to the particular problem of each. The object was to recognize and do something about the fact that learning typing is largely an individual matter. After several days the teacher found the students much more interested, working harder, and pulling out of the plateau or slump which had been troubling them. There was also a noticeable improvement in attitude toward the teacher.

At the end of the first semester, the teacher realized that two students needed to repeat Typing I if they were really to become satisfactory typists. The girls were slow learners; consequently, they read poorly and did not follow directions well. Their problem was not a matter of poor coordination, poor technique, or lack of interest. The object was to help the two girls become satisfactory typists rather than doing them the disservice of giving them social promotions. The students agreed to repeat the course and at the time of this report were doing high average work.

At the beginning of the school year, the teacher made up a list of the birthdays of all the students in her typing class. Then, whenever a student's birthday rolled around the whole class celebrated by singing "Happy Birthday" and the student who had the birthday was forgiven the day's assignment. If a birthday fell on a weekend, it was celebrated on the following Monday. If it came during the summer, it was celebrated during the last week of school. The object
was to keep the morale of the class high. While this practice was of little importance to typing, it did keep morale high in the classroom and it certainly did no harm.

Ineffective Critical Incidents Reported by High School Typewriting Teachers--2

The teacher scolded a girl quite severely for having such poor form in throwing the carriage. Also, she firmly criticized her left hand position. The object was to chastise the student for poor typing habits. The girl began to cry and revealed that the doctor had recommended that she take typing to regain the use of her arm and fingers which she had nearly lost as a result of polio during the summer. The teacher was ashamed for what she had said and tried all she could to help her after that. She felt at fault for not having discovered the girl's handicap sooner.

With some poor students the teacher exerted extra pressure for better performance and improvement. The object was to get them to try harder and to improve. Results were disappointing as undue tenseness, animosity, and fatigue hindered improvement. Some of the originally poor group when let alone, made satisfactory progress after a slow start, but the harassed group failed to achieve.

Effective Critical Incidents Reported by Administrators--3

The typing teacher gave quiet and sympathetic instruction to individuals while the rest of the class was busily engaged in a practice session. His objective was to be pleasant and helpful rather than critical. As a result, his classroom demeanor produced the efficiency and attitude toward the work to be done which is the ultimate desire of all teachers.

A certain student failed to complete an assignment time after time within the prescribed time allowed. The teacher's suggestions and encouragement definitely encouraged the student to try again and to finally succeed when he had obviously given up. The teacher's general objective was to give that particular student specific aid and encouragement. As a result, the other students definitely profited from the way in which this student was handled.
The teacher had a one-armed girl in typing class. She made her feel welcome, ordered a special book for her, and gave her special help all semester. Her objective was to teach the girl to type since it is possible for one-armed persons to type. The results were that the student not only learned to type quite well, but the other students seemed to regard the teacher with extra respect as well.

Ineffective Critical Incidents Reported by High School Administrators--3

The teacher sat at his desk most of the time grading papers. He was also very careless in checking papers. His objective was to get his paper work done during class. As a result, the class developed poor typing techniques such as watching the keyboard and work in their typewriters. The class also made a lot of errors and strike-overs.

A student was having difficulty striking the zero key with the ";" finger from the home row. The teacher told the student to move no fingers other than the small one. When the student said he couldn't, the teacher replied, "You have to do that stroking one way and only one way!" The teacher's general objective was to teach proper stroking. Needless to say, the student kept moving his entire hand to reach the key, with the result that his learning of the touch system was incomplete.

The teacher apparently never bothered to learn the names of the individual students in her typing class. When the students were not sitting in their assigned seats or when she did not have her seating chart handy, all she could say to many students was "Hey you." She seemed to have no objective in this failure to learn names. Not knowing students' names after several weeks seemed to result in lack of respect by the students.

Ineffective Critical Incidents Reported by High School Students--4

While the students were typing their assigned work, the teacher circulated around the room to see how each student was doing. Her objective was to help students who were having trouble either with their assignment or with their typewriter. As a result of this practice, the students did better work and found their mistakes more readily.
A student transferred from another school and was three weeks behind in class work. The student was given special attention by the teacher on the use of the keyboard. The object was to help the student catch up with the rest of the class. Within a very short time that student mastered the keyboard and her grades improved.

At the beginning of the year the instructor regularly checked the arm and finger positions of his pupils. His object was to correct bad habits before they became entrenched. By using correct techniques at first, students were later able to achieve speed without difficulty due to incorrect positions or stroking.

The teacher gave his class an impressive pep talk and demonstration on how to attain more speed with fewer errors. He then demonstrated to everyone individually, spending some time with certain students who were falling behind in their work. The general objective was to demonstrate smooth, consistent typing. This action helped his students increase their speed and accuracy.

**Ineffective Critical Incident Reported by a High School Student**

When her students failed to get good scores on their speed tests the teacher made no effort to follow through to see that they used better fingering or better touch. She didn't try to correct bad habits. Her objective should have been to help her students improve. As a result, little improvement was shown.

**Effective Critical Incidents Reported by Professional Secretaries—2**

The teacher constantly circulated through the classroom. Her intention was to be able to see individual mistakes and needs and to give immediate help to those students needing it. As a result, many of her students were able to overcome mistakes before bad habits were formed.

The typing teacher watched the students at all times, occasionally walking through the aisles to look specifically at each student at work. She was attempting to have a class of perfect or near-perfect typists. The result was a few good typists, several average typists, and a few poor typists.
The teacher never sat down. She constantly walked among the students observing techniques, posture, and general use of machines. Her general objective was to be in such a position that she could give individual attention almost immediately if it were needed by some student. As a result, few poor habits were developed by her students.

Just before Christmas the teacher, who was not a pleasant person, had her class do art work on their typewriters. She liked the picture typed by a particular student so she tacked it up for awhile in the room. Her objective was to let the rest of her students enjoy the picture too. The student whose picture it was was quite pleased and tried a little harder to like her after that.

The teacher often placed certain finished assignments on the classroom bulletin board. Her objective was to display assignments which students had completed perfectly and which were examples of beautiful and superior work. As a result of this practice her students were always working hard to hand in perfect copies so they would appear on the bulletin board where everyone could see what they had accomplished.

**Ineffective Critical Incidents Reported by Professional Secretaries--3**

The teacher never bothered to observe the techniques of the class. Instead she marked papers, attendance reports, etc., while her students typed. Her objective was to get her paper work completed in the classroom. As a result, some of her students developed poor habits which went undetected.

The teacher watched each of her students closely and continuously. She seemed to fear what the principal would say if all of her students didn't learn to type well. Being watched over constantly made the students nervous and they were not relaxed enough to type well.

Most of the time the typing teacher assigned page so and so and then did her own work such as personal letters, while the class sat and typed. Her intent was to get her own work done during class time. As a result of her indifference many student developed bad habits.
Sub-category D: Teaching Basic Machine Operations

Effective Critical Incidents Reported by High School Typewriting Teachers—5

Near the beginning of the year the teacher taught horizontal and vertical centering. The rest of the year all "conditioning practices" were centered by the class. The teacher's objective was to emphasize and teach vertical and horizontal centering. With this background it was easy for the class to center other material when centering was taken up. Also, they understood centering on a full page more readily.

At the beginning of the school year the teacher gave her second-year typing class a mimeographed page of questions entitled, "Do You Remember?" The questions covered the necessary fundamental details that the students were taught during their first-year course. After the papers were checked and corrected in class they were returned to the students to study for a "refresher" and for reference. The general objective was to review the fundamental details of typewriting which the students were apt to be a bit rusty on. The teacher was aided in planning her review, and the students were shown their weaknesses in the fundamentals.

The previous year the teacher had taught her students to memorize exact margin stop settings for the various length lines. She was surprised to learn, at the beginning of the present year, that the students had forgotten those exact settings. She therefore re-taught them how to figure margin settings rather than trying to get them to memorize exact settings. The general objective was to teach the general logic involved in figuring margin settings rather than trying to memorize commonly used settings, which are easy to forget. As a result, there is no longer any need to exert effort in attempting to get the students to memorize exact settings.

The teacher invented his own series of keyboard exercises which he used while presenting the keyboard. One of the exercises was as follows: The teacher stands near a typewriting keyboard wall chart and points out the location of each key with his finger or a short stick. As he points to the key, he pronounces it clearly, and counts, 1, 2, 3, 4, 5. The student will have typed six j's or whatever key is dictated by the instructor. This exercise was used
particularly for the "home row." The object of these exercises was to develop a good technique of finger stroking, without too much hand or arm movement. These simple exercises seemed to hold the interest of each student during the developing stages of typing.

The teacher found that she had good luck by using a three-step procedure in teaching tabulation by the backspace method, consisting of teacher demonstration, blackboard illustration, and class participation. The object was to help the students understand tabulations. As a result, tabulations were thoroughly understood by all about the second day and there were no further questions.

In his advanced classes the teacher gave a general objective test on the basic principles of typing. Although his students were all advanced typists, he wanted to make sure they knew the basic principles. The scores ranged from very high to extremely low. The test definitely made the students aware of the importance of these principles. After that the teacher no longer had to answer questions on basic principles, and papers came in with the margins more correct and the spacing better.

The teacher took great pains in teaching the backspacing method of setting up tabulation problems. First, there was a class discussion as to what they were going to do; then they read together the steps involved in setting up the problem. After a question period, the teacher and students together set up and worked out the problem. The teacher typed at the demonstration typewriter. The object was to teach the backspace method of setting up tabulations. The teacher was especially pleased with the results, which were better than usual. Only two students didn't have the problem set up properly.

The teacher decided to try rejecting any problem with a poor erasure or an uncorrected error turned in in her second-semester class. Only mailable or usable work was accepted. A student could retype the problem if he so wished, without lowering his grade. The teacher wanted to try something that would improve the quality of problem work turned in by her class. After a week or two the teacher was amazed at the work that was coming in. Erasures became so neat they were hardly visible, and proofreading improved tremendously. The teacher became firmly convinced that two years of typewriting is a waste of time after seeing
what her students could produce at the end of one year if they are so required.

**Ineffective Critical Incidents Reported by High School Typewriting Teachers—9**

The teacher assigned a problem involving tabulation and the conversion of inches to spaces without reviewing the techniques involved. The class was to determine proper spacing and tabulation. Twenty out of twenty-four students failed the problem, which had to be re-taught.

The teacher worked diligently with her students in an effort to get them to remember the exact points at which to set the margin stops for forty, fifty, sixty, and seventy space lines. The objective was to teach those exact points for both pica and elite machines in order that the letters turned out by the students would always be centered correctly as to left and right margins. Along this line satisfactory results were obtained.

When beginning the unit on horizontal and vertical centering, the teacher gave only general, verbal, instructions, using no examples or illustrations. The object was to teach the students to center a problem both vertically and horizontally. A few students were able to grasp it, but the majority of them did not. Centering had to be re-taught the following day, with the teacher using appropriate illustrations and blackboard figuring.

The teacher allowed his students to use erasers and Easy-Rase typing paper in class. The object was to aid the students in attaining neatness and accuracy. As a result, a group of the students were becoming more adept with the eraser than with their typing and were becoming too careless. Erasers and Easy-Rase paper were barred in order to remedy the situation.

The teacher taught the backspace method of centering a tabulation without mentioning how to center a columnar heading at the top of individual columns. The object was to teach the students to center tabulations quickly without an involved mathematical problem. The results were that the title line was centered properly, the columns were all right, but the columnar headings were a big problem. Some used common sense and centered on the longest line in the column. Some started the columnar heading where each column started,
and many were completely "in the dark" and either had to ask how to do it or left the headings out.

When the teacher introduced tabulation, she drew illustrations on the board. These illustrations included placement of left margins, tabulator stops, the number of spaces from the top of the page, etc. Her objective was to teach her students to tabulate. Instead of learning to tabulate, her students merely learned to copy. When she tested them on tabulated material, they had no idea how to go about it and typed in columns rather than using the tabulator. She had to re-teach tabulation from the beginning.

When first teaching his class tabulation, the teacher presented two different methods of computing correct horizontal spacing for columns. The general objective was to teach two ways to set up columnar tabulation. The students became very confused and would try to use a combination of the two methods. It took several explanations on the teacher's part to undo the damage.

The teacher, when he introduced typing of tabulated columns, told his class how to do it. The object was to teach the students proper columnar tabulation. As a result of his having told his students rather than showing them how to do it, over half the class typed each column from top to bottom, then went on to the next. He had to completely re-teach tabulation.

The teacher jumped the gun and taught tabulation ahead of time. He was trying to prepare his students to type certain work for their other classes. In doing this he did not do his students any good, as the regular lessons that were put off were more important in learning the basic skills than the tabulation that was picked up.

Effective Critical Incidents Reported by High School Administrators 7

When teaching horizontal centering the teacher not only had the students practice the few lines listed in the textbook, but she also placed on the blackboard a lengthy list of names of the students who were in the class, a listing of local street addresses familiar to all, and a list of school clubs, each to be centered horizontally. Her objective was to provide supplemental material for centering
practice. The results included: (a) A high degree of enthusiasm among the students; (b) a better understanding of and increased proficiency in horizontal centering; (c) a higher level of accuracy since familiar items were used; and (d) A realization that typewriting techniques have practical applications and are more than mere textbook assignments.

The teacher made extensive use of the blackboard in teaching tabulation—step by step planning for the number of columns needed, usual six spaces between or eye span discussed and vertical alignment of both figures and words pictured on the board. The columns themselves were drawn as rectangles of a size to accommodate the longest item, illustrated in some by a line low on the page. The general objective was to make it possible for students to figure their own tabulation problems by envisioning the set-up as a whole. As a result, the students attacked the next problem with relatively few questions.

After demonstrating how to set margins on the demonstration typewriter the teacher completed the exercise for the benefit of the students with that type of machine. Then, for the benefit of those with pica machines, the entire process was repeated. For a third time, the students gathered around the different brands of machines and were shown the same process. The general objective was to teach "setting of the margin stops" on all types of typewriters in that classroom. As a result, the students learned how to set margins for either pica or elite machines regardless of the brand name.

To teach tabulation the teacher put a drawing of the columns on the board, showing the figures for each step of the tabulation with the tabulator stops. The teacher's objective was to show that well-arranged work must be planned, figured mathematically, and so placed to present a pleasing appearance to the eye. As a result, the students learned to set up a well-arranged tabulation problem in a short time.

The typewriting teacher who was observed was teaching centering. Instead of counting the number of spaces, dividing by two and backspacing that many times, he had them look at the line to be centered, say one letter or space on the downward stroke of the backspace key and one letter or space on the upward movement. His general objective was to teach his class horizontal centering. As a result of learning centering in this fashion, the students could do it faster
and more accurately than they could have the old way.

In teaching tabulation, instead of describing or even demonstrating the method, the teacher had each student do each step as it was explained on the board. Her objective was to teach tabulation by the backspace method. As a result, this operation of "doing" fixed the operation in the students' mind more firmly than merely "hearing."

The teacher had her second-semester class do finger exercises daily. The purpose of those exercises was to give the fingers practice in stretching and reaching, which could be applicable in typing. As a result, the typing of many of the students improved.

**Ineffective Critical Incident Reported by a High School Administrator**

In tabulating figures, the typewriting teacher instructed his students to tabulate to the decimal, then backspace once for each number in the figure. His general objective was to teach tabulation of figures. As the students improved on the typewriter they had to change to a faster method. They should have been taught the faster way to begin with.

**Effective Critical Incidents Reported by High School Students**

The teacher continually stressed regular typewriting rhythm, not on speed tests only, but also on the daily lessons. The object was for the students to realize good typing rhythm. The students' rhythms were helped a great deal.

After taking her class through the tabulation process step by step, the teacher put a chart on the blackboard showing the techniques and steps which should be used. Her objective was to make tabulation easier for her students. As a result, the members of the class learned how to set up a tabulation evenly on paper.

The teacher explained tabulation to the class. After she finished her explanation, many people still did not understand how to tabulate. She explained the process again. The people that did not understand it after the second explanation were then shown individually how to tabulate. The
object was to get everyone to understand tabulation. As a result of this, everyone in the class understood perfectly how to tabulate. The teacher did not lose her temper or seem annoyed.

The teacher laid great stress on figuring correct margins and tabulations. She wanted her students to know enough about correct margins and tabulations to be able to get jobs as typists if they needed to. As a result, everyone in the class learned how to figure correct margins and tabulations fairly well.

When she taught tabulating, the teacher made sure each student understood the process thoroughly before giving the class a tabulation assignment to hand in. Her general objective was to avoid confusion concerning the tabulation process. When she did give a tabulation assignment to be handed in, the students had no questions and got it finished without doubt.

The teacher explained centering several times, she gave a short test on it. Several people that she did not pass thought they should have. She then explained it again. When she did this it mixed up all of the students and on the next test everyone failed centering. The teacher was attempting to clarify centering. The result was that she had to explain it again and take up extra time just because she had explained it in two completely different ways.

The teacher gave his beginning students, the previous year, very little instruction about correct tabulation. His general objective was to stress other things instead, leaving an understanding of tabulation to be gotten by reading the instructions in the textbook. As a result, some of his students did not learn correct tabulation until second-year typing.

The teacher failed to teach her students rhythm, relaxation, and enjoyment of their work. Her intent was to
instill in her students the importance of near-absolute accuracy. As a result, her students failed to learn to relax or type speedily.

Although the teacher stressed accuracy, she did not teach her students how to erase and make corrections properly. She was trying to emphasize absolute accuracy, which is impossible. As a result, her students left her typing class without having learned how to erase properly.

The teacher never allowed her students to erase. If they made errors they were not allowed to make any effort to correct them unless they wanted to do the entire assignment over again. The teacher's objective was to stress accuracy. This was very frustrating to the students, who were trying to type very slowly to avoid making errors.

Sub-category E: Teaching Basic Applications of Typewriting

Effective Critical Incidents Reported by High School Typewriting Teachers—11

Because many of his students were having to write research papers for their classes in English, Social Studies, etc. at that time, the teacher taught manuscript typing toward the end of first semester. Ordinarily he would not have taught manuscript typing until at least the middle of second semester. The teacher's objective was to encourage his students to type their research papers in manuscript form for their other classes. His action resulted in better research papers, fewer errors, and an increased interest on the part of his students in typing papers for other classes.

The teacher found it necessary in her advanced class to review carefully the details of typing business letters. She supplied the students with a complete listing of page numbers to refer to for all information on letters in their textbook. She required them to keep this listed information attached to a front page in their textbook for handy reference. The object was to aid the students in finding answers to many questions they had while working on letter-writing projects. Much class time was saved for both the students and the teacher.

Because this student seemed not to be able to arrange inside addresses so that they were well balanced
the teacher designed a special "inside address" exercise for his class. He typed several unarranged inside addresses on the left half of a ditto and gave each student a copy. The students then typed the addresses correctly on the right half of the page. The real value was in going over the papers in class and discussing good and poor arrangement. The objective was to teach a sense of good proportion in setting up unarranged material, especially in the inside address. The results were that practically all of the students developed that sense, at least an awareness which made them do some thinking before blundering blindly ahead.

The teacher had her class type both manuscript problems consecutively, rather than weeks apart as they are presented in the textbook she used. This was done to eliminate forgetfulness on the students' part. As a result, on the second manuscript the students remembered all the general form and layout of manuscript work. The papers were done much better than the teacher's previous year's group had done.

The teacher had her students type a booklet containing different styles of business letters, with a table of contents and a decorative title page. Her main reason was to present a definite and different assignment at a time when interest was beginning to lag. The results were good. The students became very interested in the project, not only as a task, but because they felt the booklets would be of lasting value in their English classes after they left school.

When teaching manuscript typing the teacher put a sample of the first and second pages of the material on the bulletin board for her class to observe, and special attention was called to them. The object was to point out things that they might need extra explanation on, such as the second page, and numbering of footnotes. The teacher felt that because of this procedure her class did better on manuscript typing than had her class the year before.

The teacher took great pains, by using blackboard illustrations and dummy pages, to teach her students how to type manuscripts. The object was to show the students how to take the "guess-work" out of typing manuscripts with footnotes to be placed at the bottom of the page. The results were gratifying. Her first-year students turned in manuscripts which were professional looking. The students were very proud of their work.
When teaching manuscript typing, the teacher used her own unique method to demonstrate the typing of footnotes to her class. She started out by having each student pick out a selection in the textbook and assume that that quoted selection was being placed in the middle of a report with the footnote reference. She and the students typed that together. Then she had each student pass his paper to the person in front of him and had that person grade and criticize and write in suggestions for improvement. The general objective was to develop alertness and understanding of footnote typing in each student and to make him error conscious. The results were very good. Only three of the sixty-five students didn't type the footnotes accurately.

The teacher planned the assignment on manuscript typing so that it would coincide with required social science term papers. The object was to teach manuscript typing. As a result, the assignment was much more meaningful to the students.

After completing a unit on typing an application letter and data sheet, the teacher had her students bring an ad from the newspaper. They were to answer the ad by typing an application letter and enclosing a data sheet. They were to make the situation as real as possible. If the student was not interested in a typist job, he or she could choose some other position. The teacher's object was to have her students apply what they had learned to a personal situation such as they would encounter in the future when applying for a position. An employer outside the class appraised the letters pointing out the good and bad points of the application, thus giving the student an idea of how to write a good letter as well as emphasizing the importance of writing a good application letter.

The teacher noticed that his students were working under a tremendous pressure while typing their first manuscript problem. Many of them stopped on a page and began typing it over each time they made an error. This not only caused a lot of wasted time but also led to much discouragement on the part of the student. In order to prevent this happening on the second manuscript problem, the teacher skipped the problem until the last two weeks of school. At that time he introduced the students to erasing and allowed them to erase and correct their errors. (Erasing is usually not permitted in the first-year course in this particular high school.) The general objective was to cut down on wasted time and discouragement on the part of the students.
The results were encouraging. The students worked much faster, did better work, and were much more happy and contented with their problem. At the same time, the machines were not clogged up very badly and the students got some practice in erasing.

Ineffective Critical Incidents Reported by High School Typewriting Teachers--2

The teacher gave the class a manuscript assignment without going over the rules for typing manuscripts. She expected the students to get the information as they typed the material. The reason for not explaining the rules was to see if the students were comprehending the material they were typing. The average work done was terrible. The teacher then repeated the lesson after going over manuscript rules. The results the second time were much better.

When the teacher was teaching her class to address envelopes she ignored the return address, thinking surely they knew how to type that! The object was not to re-teach things students already knew. The students didn't know how to type return addresses, and this one item confused them most.

Effective Critical Incident Reported by a High School Student

During the year the teacher taught the class letter writing, the different types and uses of letters. She did it in a way that was easy to understand, and she took her time in explaining it. Her general objective was to make sure everyone understood about letters. As a result of her patience and teaching knowledge everyone seemed to understand the form of letters and how to construct and type them properly.

Sub-category F: Building Operational Proficiency

Effective Critical Incidents Reported by High School Typewriting Teachers--18

In previous years the teacher had noticed that in the latter part of the year his students were apt to skip words and whole lines in their typing. At the beginning of
the present year he sought to avoid this by concentrating heavily on technique improvement, insisting that the students learn the reaches well and automatically while keeping their eyes on the copy. The objective was to instill in the students confidence in making reaches so that they would not have to raise their eyes from the copy when making certain difficult reaches. As a result, this year's students make good reaches and the hazard of skipping lines in the copy has been reduced.

The teacher conducted an experiment. In timed-writing tests each Tuesday, the students were given a speed test using short paragraphs which they typed over and over again during 15 minute periods, with penalties for errors. On Thursday they took the same test for six-minute periods. The tests were changed each week. His class had been at sort of a standstill speedwise and he hoped to improve top speed and develop a good "cruising" speed while developing more accuracy. He found that his class improved quite a little after two weeks.

The teacher gave small emblems as rewards to students who typed at rapid speeds (50, 60, & 70 wpm.) with no more than one error for each five minutes. The object was to encourage rapid, accurate typing. A number of students qualified for 50-word awards, one for a 60-word award, and two or three for 70-word awards.

Noticing that even his better students tended to slow down considerably when typing letters, the teacher included some long letters as part of his three- and five-minute writings and scored them as regular timed drills. The object was to increase his students' typing speed on letters. As a result, all the students learned to type letters much faster and with equal degree of accuracy. For instance, the students who formerly finished only four letters in one period learned to finish as many as seven.

The teacher timed her students on the typing of a letter. In the timing she included the time involved in all the preparatory steps. The object was to impress upon the students the need for good working habits and the conservation of time in assembling their materials and setting their machines. This way, the students became aware of their "production rates," which are more realistic than rates on regular timings.
The teacher started her typing class on thirty-second writings, gradually increasing the length of time until reaching a full five minutes. The point was to increase the length of timed writings so gradually that the students felt no big jump or effort. The students, when they finally reached five-minute writings, seemed to prefer them, due to slow development.

The teacher maintained an employment chart with little figures on small cards with the names of the pupils on them. At the beginning of a grading period, they were all unsalaried or unemployed. On a timed writing if a student made five mistakes or less, he was passed on to the salaried list according to the number of words he typed. If the student did not become employed during the grading period, he failed. The object was to stimulate accurate typing, by visual representation to show that mere WPM are not sufficient to merit employment. Students endeavored to type more accurately and gained more skill so that their classmates could see where they were on the chart.

In line with the final objective of typing, the teacher used "Mailable Words Per Minute" and stressed the approach to better typing by extra penalties for faulty proofreading. The general objective was to obtain relaxed concentration and develop the students' own sense of suitable typing accuracy—to promote greater accuracy and production. Gains were steady without the plateau effect so widely discussed.

The teacher had her students of equal ability compete with each other on timed writings for speed and accuracy. The object was to create a feeling of competition within the class. The slower typists seemed to be encouraged.

The teacher's students often complained that the penalty for an error on timed writings was excessive. Therefore, on several occasions he allowed them to erase and correct their mistakes during timed writings. The object was to counter their objections to the penalty for errors. The teacher was able to prove to his class that the "stop-erase-correct-go" method really netted them fewer words per minute than assessing penalties for errors did.

The teacher used a special type of speed drill consisting of a series of progressive one-minute drills followed by twelve-second drills. On the twelve-second drills the number of strokes was the number of words per
minute. The object was to increase the students' speed. The teacher felt that by using this drill his students made a great deal of effort to improve speed.

At the beginning of one six-weeks period the teacher had each of her students set specific speed and accuracy goals for himself—a realistic goal that he would like to reach by the end of the six-week period. The general objective was to get the students past the plateau they seemed to be on. At the end of the six-weeks period many students surprised themselves by surpassing the goals they had set. Others were disappointed but seemed determined to improve the next time around. More was achieved in increased speed and accuracy than the teacher had ever accomplished by imposing goals upon them.

The teacher had been using a practice of calling her students' attention each day to several things which needed correction, such as posture, neatness, etc. Since the students failed to improve as they should have, the teacher decided to concentrate on one thing each day instead of several. The object was the improvement of typewriting classroom performance. When the students were trying to concentrate on correcting everything, they were only confused and frustrated. By working on one thing until it became a set habit, their minds were free to concentrate in another area.

In attempting to increase the speed of his beginning typing class the teacher asked his students to force their fingers to go as fast as possible, disregarding all errors. This was done for three consecutive class periods for fifteen minutes a day. The idea was to teach the students to make as many strokes as possible in a given amount of time. Although it took six to eight class sessions for the students to recover their former accuracy rate, in the final analysis both increased speed and accuracy were attained.

The teacher utilized " supplemental slips" to record timed-writing progress. These slips, which were handed in each day, provided room for recording the one-minute, two-minute, and five-minute timed writings, as well as the ten-minute timed writings which were being emphasized. The best ten-minute timing for the day was also recorded on a separate ten-minute record sheet. The general objective was to maintain a record of all timings, not just the ten-minute ones which were being emphasized. Each student became more
fully aware of his capabilities and progress. Each student was motivated to do his very best because a complete record of his writings were handed in each day for scoring. The teacher was able to observe the progress of the students and offer suggestions for improvement.

Since her students were not reaching the typing speed goals she set for them, the teacher decided to use a motivational device in the form of a bar graph on the bulletin board. The object was to help the student see his class standing in regard to speed at all times. Thirteen of the students soon surpassed the speed goal she had set for the class. The teacher felt the bar graph had as much to do with their success as the drill work.

The teacher made allowance for a separate period to be devoted to "complete accuracy." His objective was to give his students a chance to slow down and to concentrate wholly on developing confidence. An increase in accuracy resulted.

The teacher mimeographed a blank chart for her students to use in typing class to record the speeds they attained on speed tests. Each day each student recorded on this chart his highest speed for the day. By recording all the best speeds on this one chart the student could readily see his over-all speed progression or regression. This simple plan seemed to work fine and the teacher planned to continue using it.

Ineffective Critical Incidents Reported by High School Typewriting Teachers--8

The teacher used a push-speed-building plan, which included calling, "Faster, Faster!" while the students were typing. The teacher hoped to raise the speed of some of the students. While some of the students were helped, many more seemed to be hindered. Very little was gained, and many students complained about a great increase in errors.

The teacher provided each student with a speed and error chart for plotting his progress. Two scores were recorded each week, all being done on an honor system. He did this to lessen the work load as far as checking papers was concerned. The results were careless checking for errors and fudging on speed scores. They seemed to think it was a game to get away with as much as they could. Unfortunately,
this attitude continued for a long time before they were convinced otherwise.

The teacher posted on the bulletin board a chart formed like a target, with a bullsye and concentric circles. Students who attained a speed of thirty words a minute wrote their names in the outermost ring; those who typed forty took the next ring, etc. The object was to recognize students who achieved certain typing speeds and to challenge students to increase their speed. The teacher decided there was nothing sporting about this game. Those students who could hope to hit the bullsye or the inside rings were already the faster typists in the class and therefore had a head start. The incentive to the slower typists was slight indeed, as their reward for reaching 30 words was to have their names conspicuously pasted in the outside ring, thus branding them as slowpokes. Some students seemed to prefer to keep their names off the chart and made sure that they did. A fairer plan would have been to recognize individual improvement.

Directly after an extended school vacation the teacher gave his class a five-minute timed writing, without warm-up, right at the start of the period. The teacher always stressed the importance of daily practice and advised against long periods of lay-offs in typing. In giving this timing he was attempting to prove his point. The result was that 80 per cent of the class typed faster and with fewer errors than they usually type. The teacher felt this made his theory sound rather ridiculous, and he feared he might lose some "daily practice" students.

The teacher allowed his students to keep all of their timings and pick the best one for the week and turn it in. The purpose was, of course, to measure the individual student's progress on speed. The teacher soon realized this wasn't a very good idea. The students were allowed to use their own paper and some of them were definitely cheating. They would take their own timings out of class, erase the errors and then turn them in. Although the teacher still uses this method, he now uses a special, stamped paper for timed writings.

Without building them up to it, or without using previously practiced material, the teacher had her students jump from five-minute timings to ten-minute timings. Her objective was to determine what the students could do on a ten-minute timing as compared to their usual five-minute
timings. The students, who were beginners, made a poor showing because of the newness of the length of the timing and the newness of the material.

The teacher's classes this year seemed to be quite a bit less accurate than his classes in the past. Therefore, he began putting a great deal of pressure on students to be more accurate. The object was to impress his students with the idea of accuracy. This seemed only to make the students more inaccurate and tense; they made even more errors than before. The teacher began to sense that his standards and requirements were too high for beginning students.

About the second day of the school year the teacher gave her advanced class its first timed writing of the year. After the bell rang at the end of the test, she said, "Figure your speed scores just like we did last year." When she checked the papers later she realized that she had not had many of the students the year before. And several of those that she had had apparently had forgotten how to figure speed scores. She felt she should have "assumed" nothing and should have taken the three minutes necessary to re-teach figuring speed scores. Her object was not to bother the students by re-teaching things they already understood. As a result of her blunder many students were completely confused that day.

Effective Critical Incidents Reported by High School Administrators--4

The teacher opened the class period by giving a series of drills using words that helped to develop all the possible reaches on the keyboard. Some of the time the instructor was writing with the students on the demonstration typewriter at the front of the room; other times he was checking the typing techniques of individual students. His general objective was to teach the keyboard in such a fashion that the students would develop the right reflexes. Thus he built his students' confidence in their ability to typewrite.

The typewriting teacher assigned the class two paragraphs to type. They were told to type until they knew they had made an error and then to stop typing. Time was kept. The object was for the students to try to see who could type the longest period of time without making an error. This device helped the students develop accuracy and ability to concentrate.
The teacher had the class start on a timed writing and each student continued until he or she made a mistake. The general objective of this exercise was to make accuracy a competitive thing. The students enjoyed it and it really increased accuracy.

The typing teacher used charts representing commercial employment at certain salaries. No one became "employed" during the grading period who consistently made more than five errors on a speed test. The object was to stimulate interest and give visible incentive for accuracy; if a student remained "unemployed" during the grading period, he failed.

Ineffective Critical Incidents Reported by High School Administrators—2

The teacher did not give the students sufficient time to check errors after a series of timed writings. The objective was to check errors and compute typing speeds. As a result, the students did not have time to accurately check all their speed tests for the day.

In giving a series of one-minute timed writings over a five-minute period, each time the teacher called, "Throw, return type" at the end of each minute he added, "Faster." His intent was to push the students for speed. However, it put the students on such a tension that they were unable to do as well as they ordinarily would have. It reduced speed rather than building it.

Effective Critical Incidents Reported by High School Students—11

The teacher devoted two entire periods a week to five and ten minute speed tests and drills. The object was to increase the students' speeds. The results were good. Speeds were much higher and accuracy was also improved.

The teacher gave great stress to accuracy, contending always that accuracy is more important than speed. Her objective was to make her class "accuracy" conscious. The class became quite accurate; their speed also increased.
The teacher put up a typing chart with intervals of ten words on it. It was for the purpose of timed writings. He put the names of all the pupils in his first-year typing classes on this chart to show how each rated with the others on timed writings. Each time a pupil could raise his speed on a one-minute timed writing up to the next 10-word level, the teacher would move him up on the chart. His object was to motivate his students to gain more speed on timed writings. As a result of this chart, the pupils worked harder to improve their speeds because of the competition or because they were ashamed of being low on the chart. Many pupils did raise their speeds, too.

The teacher had a nice, easy way of relieving the tension which comes just before a timed writing. He would stand up with a clock in hand and say, "Well, last night the repairmen were here again and took all the errors out of the typewriters." His object was to relieve tension. This really seemed to make the students relax.

During the third six-weeks period everyone was trying for speed. Hardly anyone could keep errors low enough to get a qualifying timed writing. The teacher noticed this and brought some special accuracy exercises to class for the students to work on. His objective was to help his students type qualifying timed writings. The students worked on the special exercises for about two weeks, and, sure enough, at the end of the "accuracy course" everyone had improved a great deal.

The teacher established her own routine for giving five-minute timed writings which was quite helpful to her students. Her routine consisted of letting the students practice the material for five minutes on the exploration level and for five minutes on the control level. Her object was to build speed and accuracy. The students' speeds increased notably.

In the third-year typing class the teacher took great pains to stress accuracy rather than speed. She was trying to put across to the class that no matter how fast you type, if you aren't accurate your typing isn't of much value. As a result, the members of the class became aware of the importance of accuracy.

The teacher had his students re-do any paper handed in with errors, even if there was only one error. His object was to teach his students to proofread their papers before
hanging them in. As a result, most of his students got in the habit of proofreading their work and had fewer re-types.

The teacher gave timed writings on numbers. His general objective was for his students to become accurate and speedy at typing numbers. As a result, some of the students became quite good at typing numbers.

The teacher constantly emphasized speed, accuracy, and proper punctuation. The object was to train her students to be speedy, accurate, and aware of proper punctuation. The results were very good. Her students learned to type with ease without asking questions or doubting what the punctuation should be.

The teacher gave speed tests ranging from five to twenty minutes in length all period each Tuesday and Thursday. Each student corrected his neighbor's paper. The teacher was striving for his students to attain fast speeds and accurate papers. The teacher received many excellent results. His students learned through these speed tests that in order to make high speeds they must concentrate on their work.

Ineffective Critical Incidents Reported by High School Students—4

One day while giving a timed writing the teacher walked around the room bouncing a golf ball. He was mainly watching the typing techniques of the students without realizing that the ball was disturbing. The bouncing of the ball caused the students to make mistakes which they otherwise would not have made.

The teacher liked to receive the best looking work his students were capable of producing. One day he assigned the class a term paper which had to be typed perfectly—without any erasures on it. His general objective was to stress accuracy. By typing this paper the students learned more about the importance of accuracy than they had all year, but also felt very frustrated because they could not erase and correct errors.

One day the teacher was giving a ten-minute timed writing. Just after the students had started to type, the principal came in and he and the teacher talked quite loudly for several minutes. They were discussing some problem. Their conversation was very disturbing to the students as
they were trying to type their speed test. The results were very poor speed scores that day on the part of the majority of students.

The teacher stressed speed to great extreme. Almost every assignment her class did was timed. Her objective was to force her students to increase their speeds. As a result, some students became frustrated and nervous and made too many errors.

Effective Critical Incidents Reported by Professional Secretaries—6

The teacher taught all the fundamentals, such as accuracy, at the same time, continuously and every day. She wanted the job done right. As a result, many of her students became excellent typists.

The teacher included many statistical reports in his lessons. He was interested in obtaining a high degree of accuracy, and the statistical reports afforded practice typing the numbers. As a result, his teaching was very thorough.

The teacher over-emphasized "correct form" for such things as letters, envelopes, common business forms, etc. She was trying to stress the importance of "correct form" so that the student could apply this knowledge when he became a part of the business world—even on his first job. As a result, her students became "correct form" conscious.

The teacher stressed speed. She, at all times, maintained a thermometer-like affair on the front board, showing all the speeds attained so far by members of the class. The object was to cause her students to work harder to try to improve their speeds. A feeling of friendly rivalry resulted.

The teacher set individual speed goals for his students and showed them how to attain them. His object was to be realistic in his approach to "increased speed." This proved to be a good method of motivation.

The teacher stressed the importance of accuracy rather than speed. She brought out the point that the girl who typed half a page with accuracy would be the winner over the girl who typed a whole page with ten errors. Her object
was to stress accuracy rather than speed. As a result, her students worked toward attaining accuracy first, then speed second.

Ineffective Critical Incidents Reported by Professional Secretaries--2

The teacher laid great stress on accuracy, assigning severe penalties for errors. Her intent was to train accurate typists. The result was that nearly all of her students learned to type neatly and accurately, but sacrificed speed to do so.

The teacher stressed "super" speed, with each error considered a major crime. During speed test periods she would parade up and down the aisles, occasionally stopping to stand over a student. Her object was to see how well that particular student was doing. As often as not the student that she watched got nervous and made a mess out of the test.

Sub-category G: Teaching the Use of the Typewriter as a Personal Tool

Effective Critical Incidents Reported by High School Typewriting Teachers--2

From time to time in his classes the teacher included material such as school schedules, personal correspondence, and various other office forms not in the textbook. Also, about once a month he allowed his students to type personal material, such as homework, letters to friends, etc. The teacher was aiming for "reality" in typing procedures. As a result, the students were made aware of more realistic uses of their typewriting skill.

Once each week the teacher allowed each student to substitute an assignment from another class for the regular typing assignment for that day. The student had to clear the assignment with the teacher before typing it; usually they were English themes or book reports, etc. After the assignment was finished it was handed in for a typing grade. The object was to encourage the use of typing as a personal tool. This practice resulted in increased knowledge of how to use typing for personal use on the part of the students.
Ineffective Critical Incidents Reported by High School Typewriting Teachers—4

The teacher, acceding to the pleas of other teachers, assigned students to the members of the faculty to do their personal secretarial work. The object was to help the teachers and give the students actual job experience. The teacher's regular classroom schedule was badly upset by this routine. She was constantly interrupted during class period and spent too much time helping the students and proofreading their work. If the work was not perfect, the teachers complained. Often so much work came into the department that the teacher had to pitch in and do some of the typing herself to help catch up.

The teacher assigned each of the students in his advanced class to another teacher, one day a week, to type for that teacher. He did this to give the students practical work experience and to teach them to take directions from different persons and still produce neat work. This did not work out too well because some teachers would not give the students enough work to do, some would have no work to do, and others would have too much.

On one occasion the teacher let his class type whatever they wanted to. The object was to allow the students to plan work on their own. A few students, who obviously need authority and guidance, were "lost." They produced little and with untold errors.

The teacher showed his students some Art Typing pictures and gave them the major portion of two periods to try their hands at it. The teacher was trying to interest his students in Art Typing directly before a holiday recess. The results were very poor. The next time the teacher prepared some patterns for students to follow. Those who came to the desk to pick a pattern seemed to enjoy the change. Those who experienced frustration the first time chose to write personal letters.

Effective Critical Incidents Reported by High School Students—2

The teacher had his typing class take on a group project—a booklet. He gave special time and effort in helping the students think up and construct original designs for the title page. The object was to give each student a chance to create a title page, from which the best would be picked for the booklet. This aroused interest in the work and was beneficial to everyone.
The typewriting teacher helped the Sophomore Class save money and have a nice dance. She had her typewriting classes make up programs with a theme, from which the sophomores chose their dance theme. Then the classes made up all the dance programs. Her general objective was to cooperate with the sophomores and to give practical typing experience to her students at the same time. As a result, she saved the sophomores some money and was still able to give members of her classes grades.

Ineffective Critical Incidents Reported by High School Students--3

From time to time the teacher gave her class free time to devote to personal typing. The object was to give the students a chance to study for things they were having difficulty with. However, not many of the students made good use of the time given them, and it was hard for the teacher to maintain discipline.

The typing teacher did not do enough active teaching. He let his students do as they pleased, and most didn't do anything. He was not strict, nor did he require practice or hard work. His objective, supposedly, was to teach typing. On the days when they did not have anything to keep them busy, such as specific assignments or timed writings, the students felt that their time was being wasted.

The teacher allowed some students to type reports for another class during the regular typing period. Those reports counted as regular class work since the teacher did not require these students to do regular class work. Her general objective was to help those students get caught up in their other classes. As a result, the other students in the typing class felt that they were being unfairly treated by having to do the regular class work.

Effective Critical Incident Reported by a Professional Secretary

The teacher prepared, designed, and published his own typing instruction manual, which he used in the typing class. His objective was to teach his students to learn to type quicker, faster, and more accurately through the use of his manual, which was prepared in simplified and easy-to-understand form. The manual was so useful that even certain
students who were unable to attend classes regularly, but who could practice at home, were able to learn to type successfully.

Sub-category H: Teaching the Use of the Typewriter as a Commercial Tool

Effective Critical Incidents Reported by High School Typewriting Teachers—4

The teacher had her class address 2,500 envelopes for the Easter Seal drive. The object, besides aiding the Easter Seal drive, was to teach correct addressing of envelopes. Through this experience the students were able to gain a working knowledge of the addressing of envelopes.

The teacher made it a practice to walk around her classroom, making noise and looking over students' shoulders while they typed. She did this to get them to the point where such things do not bother them while they are typing, because most offices have noise and disturbance. She found that students did not like this procedure to begin with, but in time they did not notice it at all.

The teacher invited a representative of the Arizona State Employment office to talk to her typing students. The object was to make the students aware of the need for good typists. The representative was an excellent and gracious speaker. She stressed the importance of neatness and accuracy.

The teacher took several days (parts of periods) to teach principles of learning, with illustrations of curve. The goal was to have the students understand how they would progress in their skill building, and to give them a general knowledge of why they would progress at individual rates as well as group accomplishment of the class. The results were excellent; a better mental health situation and learning atmosphere. The kids like it and said so.

Effective Critical Incidents Reported by High School Students—5

Many times in class the teacher broke the sometimes boring typing routine by lecturing to his students on ways
of improving their personalities and looks. He gave hints on what to say and how to act around different people. He was preparing his students to get better jobs. These lectures helped very much when the time came to be interviewed by prospective employers.

In his advanced typing class the teacher demonstrated how to use a dictaphone. Since the school had no class in business machines, the teacher was trying to prepare his students more fully for office work by teaching this in typing. This made the students aware of the dictaphone and more careful with their typing.

The teacher used a commercial forty-lesson packet entitled "Typewriting Office Practice." The object was to acquaint the students with office-type typewriting. The students found those assignments to be interesting and challenging and seemed to realize that they would be of great help to them in becoming accustomed to office work.

The teacher sometimes gave lectures about problems that might arise when the students were no longer students, but were working in the business world as typists. She was hoping to prepare the students for some of the problems they might run up against later on. Some of the students who had been in her classes before and who had gone on to be typists and secretaries came back and told her how much help her lectures had been to them.

The typing teacher kept emphasizing the importance of a college education. His general objective was to start his pupils thinking about their futures. As a result of this teacher's emphasis on the importance of a college education, several of his pupils who had not planned to go originally started planning to go to college.

Ineffective Critical Incidents Reported by High School Students--2

During first semester the teacher introduced and taught filing. She spent quite a bit of time on it. Her object was to teach the students to file. Almost everyone had difficulty with the work and became confused.

A couple of times the teacher got carried away with lecturing his students on such things as stocks and bonds, how people think, where people get ideas and beliefs, etc.
His objective was undoubtedly to break the classroom boredom. As a result, the students probably learned something on those days, but not typing.

Effective Critical Incidents Reported by Professional Secretaries—2

The teacher introduced her class to newspaper-type work. While facilities were limited, she nevertheless had a school paper to get out, and her typing students worked on all phases of putting a regular newspaper together, from its typing to its production. While the paper was mimeographed on a plain sheet of paper with only a heading, the students, nevertheless, had to run "copy" in columns just as a regular newspaper would. The teacher's objective, in addition to getting the newspaper out, was to introduce her students to work-a-day problems. In addition to a newspaper that was a good piece of work, the students learned many ideas about typing which would be valuable later on.

The teacher approached the typing class as though it were a business office. She was very businesslike and explained how various typing problems could be handled in an office. She felt the textbook was outmoded and brought the class up to date from her own resources. Her general objective was to treat her students as they could be expected to be treated in the business world. As a result, here was more than just a class in which to "ease off" and take for one's personal enjoyment or use, but a class with a goal in mind—to become a good typist.

Sub-category I: Teaching the Importance of Correct Spelling and Grammar in Relation to Typewriting

Effective Critical Incidents Reported by High School Typewriting Teachers—2

The teacher mimeographed the rules for dividing words and gave each student a copy. Then the students were given a list of twenty-five words to divide, first assuming the bell rang on the first letter and then on the third. The general objective was to teach the students to listen for their typewriter bells and then to divide words properly. After this exercise, it was much easier for the students to divide words in the correct place.
Since high school students are censored for their inability to spell, the teacher required ten of the most frequently misspelled words to be spelled each week. The object was to improve spelling and to associate accurate spelling with accurate typing. Students were penalized for failure to learn words by sacrificing their typing period for the day if words were not learned when missed.

Effective Critical Incident Reported by a High School Administrator

The teacher required ten spelling words, with their meanings to be learned each week. The teacher's general objective was to improve spelling. Pupils missing two or more words had to type those words outside of class twenty times and learn to spell them correctly. There was a noticeable improvement in spelling.

Effective Critical Incident Reported by a High School Student

Each day in typing class the teacher assigned small exercises concerning the rules of grammar. Her objective was to improve students' knowledge of grammar. As a result, some pupils improved their English a great deal by being in the class.

Sub-category J: Using Audio-Visual Teaching Aids

Effective Critical Incidents Reported by High School Typewriting Teachers

In her beginning typing class the teacher used a "magnetic typing board." On this board she had the letters constructed out of cardboard with little magnets on the back. As she presented each new letter she placed the letter on the magnetic board. The object was to aid the students in learning the keyboard. The students became more conscious of where the letters were and consequently did not look at the keyboard, the typewriter, or their hands nearly as much as they formerly did. They seemed to be less frustrated in learning the keys.

The teacher used tape recordings for teaching the keyboard and for extra keyboard practice. Each day a group of drills from the text was dictated at a rate within
the reach of most of the students, and the tape was then played back at intervals in each class. The objectives were mastery of the keyboard and rhythmic writing. Students concentrated better than for any other procedure. Rhythm and accuracy were developed. Keyboard reaches became automatic. The teacher was free to circulate around the class, correcting techniques and rendering individual help.

The teacher made a portable metallic bulletin board and used magnets to hold the various cardboard strips representing the parts of a business letter. This method provided her with an easy way of showing the students how the different styles of letters were changed from one style to another. After having drilled the classes by this method she also used this as a means for individual testing. The response of the class was very favorable.

The teacher had her students make individual keyboard charts, color them according to the finger usage, and place them in the same position as their textbooks. The object was to teach the typewriter keyboard effectively. This method proved to be preferable to the usual wall chart, since the student did not develop the habit of looking up, which often gives them an excuse to glance at their fingers.

The teacher used a neat, informative, and well-proportioned drawing on the blackboard for all typing problems such as: letters, tables, manuscripts, etc. The object was to enable the students to visualize and understand the problems more effectively. This eliminated any misunderstandings and enabled the students to continue typing without stopping to ask questions after the instructions and explanations had been given.

The teacher used rhythm records for five minutes at the beginning of each period during the second six weeks and intermittently throughout the semester. The object was to develop an even, smooth stroke in the beginning typing classes. The teacher decided that improvement in stroking technique was made by the majority of students involved.
**Ineffective Critical Incident Reported by A High School Typewriting Teacher**

On one occasion the teacher showed his class a typing film. The object was to illustrate correct typing techniques and procedures through a film. The limited hour prevented a discussion. The following day, when the subject of the film came up for discussion, the points of interest were lost.

**Effective Critical Incidents Reported by High School Administrators---3**

The teacher took pride in her bulletin boards, which she changed every six weeks. The purpose of her colorful, attractive bulletin boards was to illustrate something important about the uses to which typing can be put. Improved morale was the result of these bulletin boards.

The teacher had her students typewrite in rhythm to phonograph records. The purpose was to build up proper typewriting rhythm. Better finger rhythm was the result.

On one observation the teacher was covering a lesson on the re-alignment of material in the typewriter. After going through the directions in the typing book, he gave a personal demonstration on a typewriter in the front of the room. This typewriter was placed on a demonstration stand in full view of the students. To further simplify this lesson he then gave another demonstration by using a reproduction of the aligning scale which was two feet in length and about four inches wide. This was made by the teacher from two pieces of wood which made possible the placement of a sheet of paper with stenciled material symbolizing typewritten material between the two pieces of wood. The object was to teach correct re-alignment of material in the typewriter. As a result of these demonstrations there was very little need for individual instructions.

**Ineffective Critical Incident Reported by a High School Administrator**

The teacher wrote the assignment on the blackboard in such small letters that the students in the rear of the room couldn't even see what was written, much less follow directions. His objective was to put the assignment on the blackboard where all the students could easily see it.
As a result, the students had to leave their seats and go near the front of the room to read what was written.

**Effective Critical Incidents Reported by High School Students—3**

On three different occasions the teacher used typing records in class. The object was to assist the students in learning good typing rhythm. The records were in great demand by the students; they seemed to help the students relax.

The teacher emphasized good posture by exhibiting many different posters of funny sayings, jokes, and cartoons which made fun of people who had bad posture. The general intent was to make the students read these posters and then look at themselves in the same light. Improved posture on the part of some students resulted.

The teacher used typing records to teach her class how to type with good rhythm. By using this method she was trying to teach the class proper stroking rhythm, which can be obtained only through practice. As a result, many students learned how to type evenly and efficiently.

**Effective Critical Incident Reported by a Professional Secretary**

The typewriting teacher used musical records in the typing class. Her intent was to teach her students to type with good rhythm. The students looked forward to doing this exercise as it seemed to challenge them and was an effective way to achieve good rhythm.

**Sub-category K: Enlisting Student Cooperation and Aid**

**Effective Critical Incidents Reported by High School Typewriting Teachers—5**

At the first of the school year, after presenting the techniques of good posture, eyes on copy, and good stroking, the teacher selected "proctors" on the basis of about one for each eight or ten students. The object was for these "proctors," who were rotated every day, to rate their peers
on the above-mentioned habits. Having to judge other people in the habits they were trying to learn impressed these habits on their minds faster and more thoroughly than ever before. Competition seemed to spur them. The benefits derived from this seemed to last the whole year. The students developed a critical outlook on other facets of typing, for good carry-over. The results were better typists with a critical awareness of grading.

At the beginning of a series of twelve office-type problems the teacher asked for twelve volunteers to serve as "office managers"—one for each problem. As students completed each problem they took it to the office manager for that particular problem to be checked for form and attention to directions. Until the typist obtained the office manager's initials on his work he could not hand it in for grading. This plan was set up in an effort to develop better work habits along the lines of "following directions" and "assuming responsibility for own work." The "office managers" seemed to benefit most. Most of the students became more concerned with following directions as the work progressed. Some students were impressed by the fact that their errors in form and spacing were obvious even to their own contemporaries.

The teacher had her typing students secure business forms from the various business establishments in Benson, Arizona. She then had them construct posters displaying the forms for each business establishment. The object was to familiarize the students with the various business forms that they might encounter if they were to accept employment as office workers in firms in Benson. An understanding of the many and varied business forms that an office worker might encounter in Benson resulted—also good public relations.

The teacher had each row of her typing class organize into an office pool with a department head to manage: give out jobs, answer questions, check jobs when finished to see if they were mailable, etc. The general objective was to simulate office situations. The students seemed to enjoy the activity and put out more effort than usual to do a good job.

The teacher assigned one student the responsibility of issuing carbon paper whenever members of the class needed it. Another student was similarly assigned yellow paper, and another erasing shields. The object was to avoid classroom confusion whenever "carbon copies" were assigned. Confusion has been cut to a minimum.
Ineffective Critical Incident Reported by a High School Student

While teaching his class how to erase, the teacher was called to the office for a short period. So he had a substitute, a senior girl, show the class how to erase. She showed the class how to erase incorrectly. The object was to teach the class how to erase correctly at the typewriter. As a result, many students in the class started erasing incorrectly or just didn't bother to do it right.

Sub-category L: Assigning Student Grades

Effective Critical Incidents Reported by High School Typewriting Teachers--3

The teacher did not give grades for grading purposes during the first four weeks of beginning typewriting. In order that they might have a relaxed feeling while learning the keyboard, he did not want the students to worry about grades. The students seemed to learn the keyboard faster, and theirtyping was much faster and more accurate than students the teacher had taught in previous years.

Throughout the year the teacher issued "typing tickets" for the violation of certain classroom rules. The issuance of two such tickets to any one students caused his grade to be lowered one point. The ticket included spaces for checking the following violations: talking, manipulating typewriter when teacher is giving instructions, chewing gum or candy in class, throwing paper on floor, not covering typewriter properly, borrowing paper or eraser, not marking timed writing properly, leaving paper on desk when period is over, and improper use of typewriter. The teacher's objective was twofold: (1) to teach the students to be neat and learn proper use of typewriter, and (2) to maintain discipline. As a result, there was no gum chewing in class. When the class left the classroom the typewriters were neatly covered and the room was neat and in order. There was very little talking without permission. Students took better care of the typewriters, and remembered to bring paper and erasers to class.

The teacher could not get across to his students how valuable the warm-up period could be to their development of speed and accuracy. They would come into the classroom
talking and laughing and would take several minutes to get down to serious typing. So, he announced to the class that he would count the perfect lines typed in the warm-up period as an important part of their grade for the term. This was done to prove to the students how important these few minutes are. As soon as he started this, the students came into the room and went right to work and it wasn’t long before many of them were beginning to make fewer errors on their regular typing work. They no longer wasted these few minutes.

Ineffective Critical Incidents Reported by High School Typewriting Teachers--2

The teacher penalized each student for misbehavior by deducting a certain number of the correct lines he had accumulated to date. If his infraction was serious, he was penalized as many as 100 of his lines. The object was to reflect his class conduct or misconduct in his six-week grade as well as his citizenship grade. This was a particularly difficult mid-year class consisting mostly of students who had failed some other subject and were in Typing I to salvage a half unit. While this procedure helped maintain discipline, it also had a discouraging effect on students who were probably not too strong in the first place.

The teacher, when publicly announcing the class grades, unintentionally gave a "five" grade. The idea was to let each student know his six-weeks grade. The teacher felt that he had showed poor taste in announcing the failing grade and probably embarrassed the student.

Effective Critical Incidents Reported by High School Students--2

The typing teacher’s grading system was precise and yet it left room for competition among students. A person knew exactly what he must do in order to earn a particular grade. A competitive spirit was maintained at all times. The purpose was to give the students a goal to strive for without hindering initiative. In this way, those students who really wanted to get ahead in class and learn something were given every opportunity to do so.

The teacher required so many lessons, or budgets, every six-weeks period. He made sure his students were caught
up by docking a student's grade one point (A to B, etc.) if he was behind. The object was to "inspire" his students to keep their work up. No one liked his grade docked, so the students always were careful to have their work up to date.

Ineffective Critical Incident Reported by a Professional Secretary

The teacher apparently never checked a single paper because she never handed any back to her students. Her objective, evidently, was to save herself some time. As a result, her students never had even the faintest idea what they were going to make on their report cards.
APPENDIX B

THE QUESTIONNAIRES USED IN THE PILOT STUDY

The Introductory Page Used for All Questionnaires

This is a critical-incident study. Such a study seeks to determine significant behavioral patterns of certain types of individuals—in this case, high school typewriting teachers. In the past this type of study has been used to discover the effective and ineffective behavioral patterns of commercial airline pilots, dentists, psychology teachers, Air Force officers, bookkeepers, school board members, business teachers in general, and many others.

The raw data for a critical-incident study are detailed descriptions of effective and ineffective (good or poor) behavior, noted by persons who are in positions to observe such behavior at close proximity and who have a knowledge of the general intent of the observed behavior. The persons who will provide the raw data for this study include the principals and a student currently enrolled in a typewriting class from every public high school in Arizona who will write descriptions of behavior they have observed this year; also the typewriting teachers from every public high school in Arizona will write descriptions using recall and
self-analysis; still another group who will participate consists of the Arizona members of the National Secretaries Association, who will use recall for their descriptions.

When all descriptions have been collected, they will be analyzed closely to determine a set of critical requirements for high school typewriting teachers. Such critical requirements are descriptive statements, in behavioral terms, describing significant behavioral patterns which a typewriting teacher must conform to to be generally successful on the job.

The General Instructions Included with The Questionnaires Sent to Typewriting Teachers and Student Teachers

If you took typewriting in high school, please think back about the teacher who taught you the subject. If you had more than one typewriting teacher, arbitrarily choose the one you remember the best. Please try to remember the details of some one thing which your typewriting teacher did which, in the light of what you now know as an experienced typewriting teacher, you regard as having been a particularly effective, or a particularly ineffective thing for a typewriting teacher to do. (Substitute the words "good" for "effective" and "poor" for "ineffective", if you wish.

Now, on the next page, please describe in detail, the specific incident that you have recalled to mind, making sure that somewhere in your written description you give specific information regarding the following five points. (NOTE: Your contribution, to be usable in this study, must include evidence regarding each of these five points.)

1. Your description must describe something specific that your typewriting teacher did, which you remember as being especially effective or ineffective.
2. What your typewriting teacher did must have had some direct relationship to that teacher's capacity as a typewriting teacher. In other words, some typewriting teachers teach other subjects besides typewriting—shorthand, bookkeeping, history, English, etc.—but we are only interested in what he or she did as a typewriting teacher.

3. Your description must tell when or where your teacher's action took place, such as in the classroom, in the hallway, during homeroom, at PTA, at FBLA, during a conference with someone, during Career Day activities, etc.

4. Your description must describe the obvious intent of your teacher's behavior. That is, was he (or she) teaching some aspect of typewriting such as centering, speed, proper stroking, carriage return, tabulation; was he attempting to maintain discipline; or was he acting as a sponsor at some extracurricular activity, etc.?

5. Your description must tell about the results that occurred because of whatever it was that your typewriting teacher did.

The Questions Asked in The Questionnaire Sent to Typewriting Teachers and Student Teachers

I. Please write the description for part I on this page. Use the reverse side of this page if you need additional writing space.

II. Now please think back over your own typewriting classes this past year and describe something you did on one occasion which stands out in your mind as having been particularly effective or ineffective. In writing this description, please go into detail and be sure that you again give specific information regarding the five points which were mentioned in part I.

Please use the remainder of this page and the reverse side for your written description.
Think back over this past school year and recall one specific instance when you observed a typewriting teacher do something especially effective, that is, something which you thought was a very good and appropriate thing for a typewriting teacher to do. The incident that you recall need not have been done by an especially effective teacher.

Now, on the next page, please describe in detail, the specific incident that you have recalled to mind, making sure that somewhere in your written description you give specific information regarding the following five points. (NOTE: Your contribution, to be usable in this study, must include evidence regarding each of these five points.)

1. Your description must describe something specific that the typewriting teacher did, which you thought was especially effective.

2. What the typewriting teacher did must have had some direct relationship to that teacher's capacity as a typewriting teacher. In other words, some typewriting teachers teach other subjects besides typewriting--shorthand, bookkeeping, history, English, etc.--but we are only interested in what he or she did as a typewriting teacher.

3. Your description must tell when or where the teacher's action took place, such as in the classroom, in the hallway, during homeroom, at PTA, at FBLA, during a conference with someone, during Career Day activities, etc.

4. Your description must describe the obvious intent of the teacher's behavior. That is, was he (or she) teaching some aspect of typewriting such as centering, speed, proper stroking, carriage return, tabulation; was he attempting to maintain discipline; or was he acting as a sponsor at some extracurricular activity, etc.?

5. Your description must tell about the results that occurred because of whatever it was that the typewriting teacher did.
The Questions Asked in The Questionnaire Sent to High School Principals

I. Please write the description for part I on this page. Use the reverse side of this page if you need additional writing space.

II. Think back over this past school year and recall one specific instance when you observed a typewriting teacher do something especially ineffective, that is, something you thought was poor or inappropriate for a typewriting teacher to do. The incident that you recall need not have been done by a generally ineffective teacher.

Now, please describe in detail the specific incident that you have recalled to mind, making sure that somewhere in your written description you give specific information regarding the five points which are listed in part I, changing the word "effective" in No. 1 to "ineffective."

Please use the remainder of this page and the reverse side for your written description.

The General Instructions Included with The Questionnaires Sent to High School Students

Please think back about the typewriting class that you have been enrolled in this past year. Concentrate specifically on the different things which your typewriting teacher has done which have impressed you as being particularly good and particularly poor for a typewriting teacher to do.

Now please choose one thing that he or she did which you think was particularly good and describe it for us on the next page. The one thing you describe need not have occurred in class, that is, it could just as well have occurred in the hall, in another classroom, in the school office, during homeroom, during a teacher-parent conference, at PTA, at FBLA, during Career Day activities, etc. However, whatever he or she did that you choose to tell us about should be something that you actually observed, not something that you just heard about.

Please do not identify your teacher by name. However, please be sure that what you tell us answers in detail at least the following questions:
1. **Exactly what was it** that your teacher did?

2. How was what he or she did related to your typewriting class? About the only way you can answer this question is by making sure to yourself and clear to us that what you are describing actually took place in connection with typewriting and not in connection with any other subject—such as shorthand, bookkeeping, English, history, etc.—that your teacher might be teaching this year.

3. **When or where** did he or she do this thing?

4. What was the general intent of what he or she did? That is, was your teacher trying to maintain discipline, trying to teach the class some aspect of typewriting such as centering, tabulation, correct stroking, speed, etc., or was he or she doing something extra-curricular such as sponsoring a club meeting or a school dance, etc.?

5. What happened as a result of what your teacher did?

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**The Questions Asked in The Questionnaires Sent to High School Students**

I. Please write the description for part I on this page. Use the reverse side of this page if you need additional writing space.

II. Now, using the same directions and questions as in part I, please describe something which your typewriting teacher did this year that impressed you as being particularly poor for a typewriting teacher to do.

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**The General Instructions Included with The Questionnaires Sent to Professional Secretaries**

If you took typewriting in high school, please think back about the teacher who taught you the subject. If you had more than one typewriting teacher, arbitrarily choose the one you remember best. Please try to remember the details of some one thing which your typewriting teacher did which you remember as having been a particularly effective thing for a typewriting teacher to do. (Substitute the word "good" for "effective," if you wish.)
Now, on the next page, please describe in detail, the specific incident that you have recalled to mind, making sure that somewhere in your written description you give specific information regarding the following five points. (NOTE: Your contribution, to be usable in this study, must include evidence regarding each of these five points.)

1. Your description must describe something specific that your typewriting teacher did, which you remember as being especially effective or ineffective.

2. What your typewriting teacher did must have had some direct relationship to that teacher’s capacity as a typewriting teacher. In other words, some typewriting teachers teach other subjects besides typewriting—shorthand, bookkeeping, history, English, etc.—but we are only interested in what he or she did as a typewriting teacher.

3. Your description must tell when or where your teacher’s action took place, such as in the classroom, in the hallway, during homeroom, at PTA, at FBLA, during a conference with someone, during Career Day activities, etc.

4. Your description must describe the obvious intent of your teacher’s behavior. That is, was he (or she), teaching some aspect of typewriting such as centering, speed, proper stroking, carriage return, tabulation; was he attempting to maintain discipline; or was he acting as a sponsor at some extra-curricular activity?

5. Your description must tell about the results that occurred because of whatever it was that your typewriting teacher did.

The Questions Asked in The Questionnaires Sent to Professional Secretaries

I. Please write the description for part I on this page. Use the reverse side of this page if you need additional writing space.

II. Now please try to recall the details of some one thing which your typewriting teacher did which you remember as being a particularly ineffective thing for a typewriting
teacher to do. (Substitute the word "poor" for "ineffective," if you wish.)

On the remainder of this page and on the back if you
need more space, please describe in detail the specific in-
cident that you have recalled to mind. Again be sure to give
information regarding the five points listed in part I.

The Final Page Items for All Questionnaires Used in The Pilot Study

On this page, please make any comments or criticisms
which you think are appropriate. Please point out anything
which is unclear or which you do not understand so that we can
rewrite or rearrange the material or wording, if necessary.
Also please indicate your reaction as to the worthwhileness
of such a study as this, bearing in mind that high school stu-
dents, high school principals, and high school typewriting
teachers will be submitting similar descriptions.

Please give us your name and address here if you want
us to send you a report of the results of this study when it
is finished.

Now please mail this questionnaire directly to Mr.
James Weston at 1445 E. 8th St., Tucson, Arizona, using the
attached, self-addressed, stamped envelope.
APPENDIX C

THE QUESTIONNAIRES USED IN THE PRESENT STUDY

The following four commercially printed questionnaires are copies of those used in the present study.
I either am **not** teaching typewriting this year, or I have **never** taught typewriting, so do not wish to react to this questionnaire.

**General Directions**

Please think back over the typewriting class or classes which you have taught this past year and try to recall two specific incidents:

I. Once when you did something **in the classroom**, which, in your own opinion, was an exceptionally good and/or appropriate thing for a typewriting teacher to do; and,

II. Once when you did something **in the classroom**, which, in your own opinion, was definitely a poor and/or inappropriate thing for a typewriting teacher to do.

On the following pages, please write descriptions of the incidents you have recalled. Your descriptions may be either detailed or brief; but, to be usable in this study, they **must** include specific, written evidence regarding each of the following three points. It is suggested that, in writing your descriptions, you consider each point in order.

1. Your descriptions should describe **something specific** that you did in the classroom, while teaching typewriting.

2. Your descriptions should describe **the general objective** of your behavior. By this is meant: What were you trying to accomplish? (EXAMPLES: Were you teaching some specific aspect of typewriting such as centering, tabulation, proper stroking, etc.; or were you attempting to maintain discipline; or were you conducting an extra-curricular activity in the classroom, etc.?)

3. Your descriptions should tell about **the results** that occurred because of what you did.

When you have finished writing your descriptions, please answer the one question on the last page, and make any comments that you feel are appropriate in the space provided. Then return this questionnaire to James J. Weston, Dept. of Secretarial Studies and Business Education, The University of Arizona, Tucson, Arizona.
Part I.

On this page write the description of one exceptionally good and/or appropriate thing which you did this year in your typewriting class or classes. Please say something definite concerning each of the three points listed in the general direction on page 1.
Part II.

On this page write the description of one poor and/or inappropriate thing which you did in your typewriting class or classes this year. Again, please say something definite concerning each of the three points listed in the general directions on page 1.
Directions: Please check the correct response for the following question.

What is your sex?

(a) male_____  
(b) female_____

COMMENTS:

Since the data from this questionnaire are to be kept strictly anonymous, please do not sign your name. However, if you would like to receive a brief summary of the final results, please fill in and mail the attached postal card.

Your consideration in completing and returning this questionnaire is greatly appreciated; thank you very much.

N° 263 T
Please think back over this past school year, and try to recall two specific incidents:

I. Once when you observed a typewriting teacher do something in the classroom, which, in your opinion, was an exceptionally good and/or appropriate thing for a typewriting teacher to do; and,

II. Once when you observed a typewriting teacher do something in the classroom, which, in your opinion, was definitely a poor and/or inappropriate thing for a typewriting teacher to do.

On the following pages, please write descriptions of the above incidents that you have recalled. Your descriptions may be either detailed or brief; but, to be usable in this study, they must include specific, written evidence regarding each of the following three points. It is suggested that, in writing your descriptions, you consider each point in order.

1. Your descriptions should describe something specific that the typewriting teacher did in the classroom, while teaching typewriting.

2. Your descriptions should describe the general objective of the teacher's behavior. By this is meant: What was he trying to accomplish? (EXAMPLES: Was he teaching some specific aspect of typewriting such as centering, tabulation, proper stroking, etc.; or was he attempting to maintain discipline; or was he conducting an extra-curricular activity in the classroom, etc.?)

3. Your descriptions should tell about the results that occurred because of what the typewriting teacher did.

When you have finished writing your descriptions, please answer the three questions on the last page, and make any comments that you feel are appropriate in the space provided. Then please return this questionnaire to James J. Weston, Dept. of Secretarial Studies and Business Education, The University of Arizona, Tucson, Arizona.
Part I

On this page write the description of one exceptionally good and/or appropriate thing which you observed a typewriting teacher do. Please say something definite concerning each of the three points listed in the general directions on page 1.
Part II

On this page write the description of one poor and/or inappropriate thing which you observed a typewriting teacher do. Again, please say something definite concerning each of the three points listed in the general directions on page 1.
Directions: Please check the correct responses for the following questions.

1. What is the sex of the teacher whose behavior you described in Part I?
   (a) male
   (b) female

2. What is the sex of the teacher whose behavior you described in Part II?
   (a) male
   (b) female

3. For both Parts I and II did you write about the same teacher?
   (a) yes
   (b) no

COMMENTS:

Since the data from this questionnaire are to be kept strictly anonymous, please do not sign your name. However, if you would like to receive a brief summary of the final results, please fill in and mail the attached postal card.

Your consideration in completing and returning this questionnaire is greatly appreciated; thank you very much.
General Directions

If you took typewriting in high school, please think back about your typewriting class or classes, and try to recall two specific incidents:

I. Once when you observed your typewriting teacher do something in the classroom, which, in your opinion, was an exceptionally good and/or appropriate thing for a typewriting teacher to do; and,

II. Once when you observed your typewriting teacher do something in the classroom, which, in your opinion, was definitely a poor and/or inappropriate thing for a typewriting teacher to do.

On the following pages, please write descriptions of the incidents you have recalled. If you had more than one typewriting teacher in high school, your descriptions do not have to be about the same teacher. Your descriptions may be either detailed or brief; but, to be usable in this study, they must include specific, written evidence regarding each of the following three points. It is suggested that, in writing your descriptions, you consider each point in order.

1. Your descriptions should describe something specific that your typewriting teacher did in the classroom, while teaching typewriting.

2. Your descriptions should describe the general intent of the teacher's behavior. By this is meant: What was he trying to accomplish? (EXAMPLES: Was he teaching some specific aspect of typewriting such as centering, tabulation, proper stroking, etc.; or was he attempting to maintain discipline; or was he conducting an extra-curricular activity in the classroom, etc.?)

3. Your descriptions should tell about the results that occurred because of what your typewriting teacher did.

When you have finished writing your descriptions, please answer the four questions on the last page, and make any comments that you feel are appropriate in the space provided. Then please return this questionnaire to James J. Weston, Dept. of Secretarial Studies and Business Education, The University of Arizona, Tucson, Arizona.
Part I.

On this page write the description of one exceptionally good and/or appropriate thing which you observed your typewriting teacher do. Please say something definite concerning each of the three points listed in the general directions on page 1.
Part II.

On this page write the description of one poor and/or inappropriate thing which you observed your typewriting teacher do. Again, please say something definite concerning each of the three points listed in the general directions on page 1.
Directions: Please check the correct responses for the following questions.

1. What is the sex of the teacher whose behavior you described in Part I?
   (a) male
   (b) female

2. What is the sex of the teacher whose behavior you described in Part II?
   (a) male
   (b) female

3. For both Parts I and II did you write about the same teacher?
   (a) yes
   (b) no

4. Where did you study typewriting?
   (a) In a public high school
   (b) In a private or parochial high school
   (c) Other (please list)

COMMENTS:

Since the data from this questionnaire are to be kept strictly anonymous, please do not sign your name. However, if you would like to receive a brief summary of the final results, please fill in and mail the attached postal card.

Your consideration in completing and returning this questionnaire is greatly appreciated; thank you very much.
APPENDIX D

COVERING AND FOLLOW-UP LETTERS

First Cover Letter Sent to High School Typewriting Teachers

Dear Misc_______:

You have been chosen from a random sampling of all business education teachers in the state of Arizona to participate in a study, concerning the classroom behavior of typewriting teachers, now being conducted at the University of Arizona. We sincerely hope, that in the interests of Business Education, we can count on your cooperation.

Specifically, will you please complete the enclosed questionnaire. This study marks the first time, to our knowledge, that a teacher-behavior approach has been used in researching any of the skill subjects. Therefore, the time and thought you put into completing our questionnaire should ultimately prove to be well spent. This is an opportunity for you to make a definite contribution to an important field.

Although the questionnaire is self explanatory, there is one additional thing that should be emphasized. It is designed for teachers who are teaching typewriting this year. Should you not be teaching typewriting this year, or if you have never taught the subject, you may react in either of two ways: (1) check the appropriate square at the top of the first page and return the blank questionnaire; or, (2) deviate from the printed directions and regard the questions in the light of some previous year when you did teach typewriting.

In order for this study to be at all worthwhile, a large percentage of carefully completed returns must be realized, so please don't let us down. Thank you very much for your cooperation.

Yours truly,
First Cover Letter Sent to High School Administrators

Dear Mr. __________:

You are one of a group of Arizona public high school administrative heads selected to assist in a study now being conducted at the University of Arizona. The study concerns the classroom behavior of typewriting teachers. We sincerely hope that despite the fact that this is the busy time of year for you, we can count on your cooperation.

Would you please assist us in the completion of the enclosed questionnaires. The white questionnaire is designed for you as administrative head, and the two gray ones are for you to distribute to one boy and one girl in your high school who are enrolled in typewriting. The students that you choose should be people that you think will make a conscientious attempt to complete the questionnaires promptly and correctly; they should return them directly to the University of Arizona when they have finished with them.

Since this is the first time, to our knowledge, that a teacher-behavior approach has been used in researching any of the business education subjects, our study should prove to be a definite contribution to the field of secondary education. In order for the study to be at all worth while, however, a large percentage of carefully completed returns must be realized, so please don't let us down. Thank you very much.

Yours truly

James J. Weston
Graduate Assistant

Robert J. Letson
Assistant Professor of Education

Enc.
Dear Mrs.________:  

As an active member of the National Secretaries Association you have been chosen to participate in a study now being conducted at the University of Arizona. This study concerns the classroom behavior of typewriting teachers. 

Specifically, will you please complete the enclosed questionnaire. This study marks the first time, to our knowledge, that a teacher-behavior approach has been used in researching any of the secretarial subjects. This is an opportunity for you to make a definite contribution to an important field. 

For our study to be at all worth while, a large percentage of carefully completed returns must be realized. If because of the time that has elapsed since you studied typewriting you simply cannot remember anything about the classroom behavior of your typewriting teacher, make a notation to that effect in the COMMENTS section on the last page and return the questionnaire uncompleted. Thank you very much for your cooperation. 

Yours truly, 

James J. Weston  
Graduate Assistant 

Robert J. Letson  
Assistant Professor of Education 

Enc.
First Follow-up Letter Sent to High School Typewriting Teachers

Dear Mr.__________:

Two weeks ago we wrote you asking that you participate in a study we are conducting here at the University of Arizona by reacting to a printed questionnaire. The study concerns the classroom behavior of typewriting teachers. To date we have not received the questionnaire back from you.

Undoubtedly you have been extremely busy these past two weeks. However, now that the Easter vacation is over, and the school routine is more or less back to normal, won't you please take just a few minutes and give some attention to our questionnaire. Frankly, we desperately need your reply!

If you have already sent back the questionnaire, please accept our apologies for bothering you again.

Yours truly,

James J. Weston
Graduate Assistant

Robert J. Letson
Assistant Professor of Education
Dear Mr.________:

Two weeks ago we wrote you asking you to participate in a study we are conducting here at the University of Arizona concerning the classroom behavior of typewriting teachers. We specifically requested that you react to a printed questionnaire, and that you distribute two other questionnaires to students presently enrolled in typewriting classes.

Undoubtedly you have been extremely busy these past two weeks. However, now that Easter vacation is over, and the school routine is more or less back to normal, won't you please take just a few minutes and give some attention to our questionnaire. Also, we would appreciate it if you would check with the students that you chose to participate, since student responses have, to date, been surprisingly low.

If you have already sent back the questionnaire, please accept our apologies for bothering you again.

Yours truly,

James J. Weston
Graduate Assistant

Robert J. Letson
Assistant Professor of Education
First Follow-up Letter Sent to Professional Secretaries

Dear Mrs.__________:

Two weeks ago we wrote you asking you to participate in a study we are conducting here at the University of Arizona concerning the classroom behavior of typewriting teachers. We specifically requested that you complete a printed questionnaire that was enclosed with our letter.

To date we have not received the questionnaire back from you. Won't you please take just a few minutes and give it your attention. Frankly, we desperately need your reply.

If you have already sent back the questionnaire, please accept our apologies for bothering you again.

Yours truly,

James J. Weston
Graduate Assistant

Robert J. Letson
Assistant Professor of Education
Second Cover Letter Sent to High School Typewriting Teachers

Dear Miss:

Earlier this year we wrote you regarding a study concerning the classroom behavior of typewriting teachers which we are conducting here at the University of Arizona.

To date we have had excellent cooperation from business education teachers throughout the state, with some 64 per cent responding to our appeal. In hopes that our final percentage may more nearly approach 100 per cent, however, we are sending a second copy of the questionnaire to all who have not yet replied.

Won't you please take just a few minutes and write a response for use before end-of-the-year activities take up your time completely?

Yours truly,

James J. Weston
Graduate Assistant

Robert J. Letson
Assistant Professor of Education

Enc.
Second Cover Letter Sent to High School Administrators

Dear Mr._________:  

Earlier this year we wrote you regarding a study concerning the classroom behavior of typewriting teachers which we are conducting here at the University of Arizona.  

To date we have had excellent cooperation from the high school administrators throughout the state, with some 60 per cent responding to our appeal. In hopes that our final percentage may more nearly approach 100 per cent, however, we are sending a second copy of the questionnaire to all who have not yet replied.  

Won't you please take just a few minutes and write a response for us before end-of-the-year activities take up your time completely?  

Yours truly,  

James J. Weston  
Graduate Assistant  

Robert J. Letson  
Assistant Professor of Education  

Enc.
Second Cover Letter Sent to Professional Secretaries

Dear Mrs. [Name]:

Last month we mailed you a questionnaire concerning the classroom behavior of typewriting teachers. Since you have not yet returned that questionnaire, and since we are so eager to obtain a reply from you, today we are sending you a second copy.

If, for some reason, you do not feel qualified to react to the items in the questionnaire, please say so in the COMMENTS section, and return it uncompleted. That will still allow us to count your reply in our final percentage.

To date, sixty-eight per cent of the members of NSA that we included in this study have responded, and we hope our final percentage will more nearly approach one hundred per cent by June 1 which is the cut-off date.

Yours truly,

James J. Weston
Graduate Assistant

Robert J. Letson
Assistant Professor of Education

Enc.