To the Graduate Council:

I am submitting herewith a thesis written by Mary Louise Jerrell Noblitt entitled "Social Factors, Technological Developments, or Accountancy Practices Affecting Secondary School Accountancy Instruction, 1947-1973." I recommend that it be accepted in partial fulfillment for the degree of Master of Science, with a major in Business Education.

Anthony G. Ponzeca, Major Professor

We have read this thesis
and recommend its acceptance:

Accepted for the Council:

Vice Chancellor
Graduate Studies and Research

SOCIAL FACTORS, TECHNOLOGICAL DEVELOPMENTS, OR ACCOUNTANCY PRACTICES AFFECTING SECONDARY SCHOOL ACCOUNTANCY INSTRUCTION, 1947-1973

A Thesis

Presented for the

Master of Science

Degree

The University of Tennessee

Mary Louise Jerrell Noblitt

August 1975

1265292

ACKNOWLEDGEMENTS

The writer wishes to acknowledge those people who have been of assistance throughout the planning and writing of this thesis. Gratitude is expressed to the committee, composed of Professors Anthony G. Porreca, John J. Stallard, Bill J. Radcliff and Donald D. Reese, who have been willing to assist and provide guidance at all times while the research and writing of this thesis has been in progress. A special note of appreciation goes to the chairman of the committee, Dr. Anthony G. Porreca, whose encouragement, guidance, constructive criticism, and willingness to be available at all times for consultation has made the completion of this study possible.

Appreciation is also extended to Mr. Ralph C. Holmes, South-Western Publishing Company and to Dr. David H. Weaver, Gregg Publishing Division of McGraw-Hill Book Company for their willingness to lend the writer copies of the textbooks reviewed in this research.

Gratitude is extended to the writer's family whose support and encouragement have made the completion of this program possible. A very special thank you is extended to my daughter, Nancy, for her generous help with the typing of both the rough draft and the final copy of the manuscript.

August, 1975 Mary Louise Jerrell Noblitt

ABSTRACT

The purpose of the study was to identify social factors, technological developments, or accountancy practices affecting secondary school accountancy instruction, 1947-1973.

Two secondary school accounting textbooks were selected for this study--the 1947-1972 editions of the South-Western Publishing Company textbooks and the 1953-1973 editions of the McGraw-Hill Book Company (Gregg) textbooks. A chronology of change in secondary school accountancy instruction was developed for each of the two accounting textbooks selected for this study. The chronology included changes in textbook illustrations, instructional materials, and vocabulary terms. Frequency and percentage data are reported for each edition, the percent of change from one edition to the succeeding editions and the percent of change of each edition in relation to the base year.

Changes in secondary school accountancy instruction, 1947-1973 due to social factors include federal government changes in terminology and the use of management cases to help the student express his/her ideas and concepts by simulating actual business situations and problems. During this period there were a total of 29 changes made due to social factors.

Changes made in secondary school accountancy instruction, 1947-1973, due to technological developments were brought about mainly by

automation and data processing. Between 1947 and 1973 a total of 204 changes were made in accountancy instruction due to technological developments.

Changes made in secondary school accountancy instruction, 1947-1973, due to changes in accountancy practices include: changing from the use of the term "bookkeeping" to "accounting," the use of ready-made accounting systems and forms, using a three-line heading on all forms, and the modern trend to summarize petty cash directly into the combination journal. One hundred six changes in secondary school accountancy instruction were made due to accountancy practices during this period.

TABLE OF CONTENTS

CHAPTER		PAGE
I.	INTRODUCTION	1
	Historical Background	1
	Middle Ages	1
	Renaissance Era	1
	Industrial Revolution Era	2
	Automation Era	3
	Statement of the Problem	3
	Questions to be Answered	3
	Rationale	4
	Definition of Terms	7
	Limitations of the Study	8
	Organization of the Study	8
II.	REVIEW OF LITERATURE	10
III.	PROCEDURES	16
IV.	ANALYSIS OF DATA	21
	Introduction	21
	Book One: South-Western Publishing Company	22
	Textbook Illustrations (1947-1972)	22
	Instructional Materials (1947-1972)	24
	Changes in Terminology (1947-1972)	26

CHAPTER PAGE

Book Two: McGraw-Hill Book Company 51
Textbook Illustrations (1953-1973) 51
Instructional Materials (1953-1973) 53
Changes in Terminology (1953-1973) 55
Summary 95
V. FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS 103
Findings 103
Textbook Illustrations 103
Instructional Materials 104
Vocabulary 104
Types of Changes 105
Social Factors 105
Technological Developments 106
Accountancy Practices 111
Conclusions 117
Recommendations 118
BIBLIOGRAPHY 120
APPENDIXES 124
VITA 185

LIST OF TABLES

TABLE		PAGE
I.	Frequency and Percent of Change of Textbook Illustrations Book One	23
II.	Analysis of Selected "Suggested Instructional Materials" Book One	25
III.	Change in Terminology 1947-1952 and Rationale	27
IV.	Change in Terminology 1952-1957 and Rationale	30
V.	Change in Terminology 1957-1962 and Rationale	34
VI.	Change in Terminology 1962-1967 and Rationale	39
VII.	Change in Terminology 1967-1972 and Rationale	44
VIII.	Frequency and Percent of Change of Textbook Illustrations Book Two	52
IX.	Analysis of Selected "Suggested Instructional Materials" Book Two	54
X.	Change in Terminology 1953-1958 and Rationale	56
XI.	Change in Terminology 1958-1963 and Rationale	57
XII.	Change in Terminology 1963-1968 and Rationale	64
XIII.	Change in Terminology 1968-1973 and Rationale	81
XIV.	Total Number Selected "Suggested Instructional Materials," 1947-1973	97
XV.	Terminology Book One: South-Western Publishing Company The Percentage of Change	99

TABLE PAGE

XVI. Terminology Book Two: McGraw-Hill Book Company

The Percentage of Change 100

CHAPTER I

INTRODUCTION

I. HISTORICAL BACKGROUND

Middle Ages

Man has been keeping records of business transactions for thousands of years. Accounting aids which are essential to record keeping have passed through many stages of development. Early man used a chisel to record business transactions on stone tablets. From a historical standpoint, one cannot be sure when the business of record keeping started. However, specimens of Babylonian and Assyrian business records in the form of clay tablets that are thousands of years old can be found in many museums in Europe and America. Hundreds of records, in wax tablets, of sales made by the citizens of Greece and Rome have been discovered. The difficulty of the bookkeepers in every European country during the Middle Ages is that all figures were expressed in Roman numerals. The Arabic figures did not displace the Roman numerals until the fourteenth century.

Renaissance Era

Business transactions were kept only in memoranda form from the time of ancient Babylon down to 1494. It was during this year (1494) that Fra Luca Pacioli's treatise "Everything About Arithmetic, Geometry,

and Proportion," was published in Venice. A section of this textbook was devoted to a new method of keeping books. Pacioli's method of keeping books by double entry spread from Italy to France, Holland, and England. English colonists brought the double-entry system to America and instruction in the method was offered early in our history. For example, in 1635, fifteen years after the Pilgrims landed, a Mr. Morton conducted a school in Plymouth in which he taught the students "to read, write, and cast accounts."[1] Several expressions were early designations used for bookkeeping. One of these was the expression "casting accounts." Two others were "merchant's accounts" and "merchantile accounts."

Industrial Revolution Era

Bookkeeping was first introduced in the public high schools in 1823. For decades following this time, it was the only business subject taught in the high school. Early bookkeeping instruction consisted of the copy method. In this method the student copied entries from the textbook onto blank bookkeeping forms. Due to the increase in the number and size of businesses, the coming of government regulations and taxation, and the advent of automation; today, more emphasis is being placed on the principles of bookkeeping and their application.[2]

---

[1]Walter Scott Monroe, Development of Arithmetic as a School Subject, Department of the Interior, Bureau of Education, Bulletin No. 10 (1917), p. 22 as reported in C. A. Nolan, Carlos K. Hayden, and Dean R. Malsbary, Principles and Problems of Business Education, Third Edition (Cincinnati: South-Western Publishing Company, 1967), p. 200.

[2]C. A. Nolan, Carlos K. Hayden, and Dean R. Malsbary, Principles and Problems of Business Education, Third Edition (Cincinnati: South-Western Publishing Company, 1967), p. 194.

Automation Era

Over the years man came to use, first, pen and ink; then manually operated machines; and now, automated machines activated by punched cards, punched paper tape, and magnetic tape. Many teachers are unaware of the importance of mechanization and automation on accounting procedures which is a disturbing situation because it is the responsibility of the teacher to keep informed and to keep his/her students informed about changing conditions which may affect their performance in future occupations.

II. STATEMENT OF THE PROBLEM

The purpose of this study was to identify social factors, technological developments, or accountancy practices affecting secondary school accountancy instruction, 1947-1973.

III. QUESTIONS TO BE ANSWERED

1. What was the frequency of use of accountancy illustrations in secondary school accounting textbooks?
2. What was the total number and percent of change in selected instructional materials in secondary school accounting textbooks?
3. What accountancy vocabulary was used in secondary school classes from 1947 to 1973?

4. What social factors, technological developments, or accountancy practices affected secondary school accountancy instruction between 1947 and 1973?

IV. RATIONALE

From the notched stick (one of the first accounting aids) to the present-day "electronic brain," we can see that methods of accounting have been adapted to the needs of the times.[3] As business conditions have changed, accounting methods have had to change in order to meet those new conditions. The purpose of this research was to determine what these changes are and what effects they have had on accounting instruction.

Edwards made the following observation:

> It appears that the business education curriculum is rapidly becoming inadequate, and perhaps obsolete, in meeting the needs of individuals who are preparing for business occupations in general and bookkeeping and accounting occupations in particular.[4]

Giffin[5] stated that "the business teacher must not only recognize that this condition exists, but he must also be aware of the extent of

---

[3]James A. Cashin, Careers and Opportunities in Accounting (New York: E. P. Dutton and Co., Inc., 1965), p. 16.

[4]Melvin L. Edwards, "The Effects of Automation on Accounting Jobs" (unpublished Doctor's dissertation, The University of Oklahoma, Oklahoma City, 1959), p. 15, as reported in Jerrie Ruth Giffin, "The Utilization of Accounting Machines in Accounting Procedures in Knoxville, Tennessee," (unpublished Master's thesis, The University of Tennessee, Knoxville, 1965), p. 5.

[5]Jerrie Ruth Giffin, "The Utilization of Accounting Machines in Accounting Procedures in Knoxville, Tennessee," (unpublished Master's thesis, The University of Tennessee, Knoxville, 1965), p. 5.

mechanization so that he will be able to revise and supplement his teaching accordingly."

Scott[6] indicated that statistical procedures have been included in accounting techniques due to the changing needs of a changing economic situation and that accounting theory has undergone a process of development from a theoretical summary of the use of double-entry records to a theoretical summary of the application of statistical methods to public and private economic administration problems. Scott discussed how accounting techniques have been developed to supplement and supplant market machinery, and how the development of machine processes during the past 150 years has brought favorable conditions into the cultural situation.

Cashin[7] explained the impact of automation on accounting education: "since the accountant of the future will be doing more analytical and problem-solving work, he will have to be trained to understand and apply analytical principles in his work." The accountant will need a greater knowledge of mathematics and business statistics; he will have to be able to apply economic theory to accounting and business problems. ". . . the student must be trained to meet conditions as he will find them many years after his formal education has ended." He must be able to adjust to advances in his profession as well as to changes in his social and business environment. Cashin further stated:

---

[6]D. R. Scott, The Cultural Significance of Accounts (Columbia, Missouri: Lucas Brothers Publishers), p. 239.

[7]Cashin, Careers and Opportunities in Accounting, pp. 184-185.

> The need for greater knowledge in one's chosen field . . . is greater today than ever before. A few years ago an accountant . . . could, with minimum training, master the important features of his work as he gained experience. Today, however, with rapid technological changes taking place, and the growing complexity of business, experience alone is not enough. Industry-wide developments, such as electronic data processing, . . . are bringing such fundamental changes that it is necessary to obtain knowledge of them outside of one's job. Far more education is now required in . . . the accounting . . . fields.[8]

It appears that accounting instruction has been challenged as subject matter for secondary school students due to the development of data processing. Unfortunately, many educators believe that an understanding of data processing is sufficient without an understanding of accounting and that data processing will replace accounting knowledge and understanding. Perhaps this study will reveal that although data processing will have an even greater impact in the future on business, computerized accounting systems follow the basic philosophy, principles, concepts, and procedures that were initiated several centuries ago and have transcended through manual machine processing in accounting and perhaps will withstand--and will be necessary in--electronic data processing.

The results of this research study may be used by administrative personnel to determine whether their accounting teachers are keeping abreast of the current trends in their fields. It may also be of value to teacher educators in planning educational programs.

---

[8] Ibid., pp. 33-34.

V. DEFINITION OF TERMS

Accountancy practices describe those changes in accountancy vocabulary which were a result of changes in principles and procedures concerned with recording, classifying, summarizing, and interpreting financial data for an enterprise.

Automation "is the processing of data by mechanical and electronic devices."[9]

Bookkeeping is "the art or practice of keeping a systematic record of business transactions and accounts."[10]

Data processing is "the recording, sorting, classifying, calculating, summarizing, storing, and reporting of facts."[11]

Managerial accountancy approach is designated as social factors and described as changes which were managerial in nature and not specific changes in recording, classifying, summarizing, and interpreting financial data.

Social factors describe those changes in accountancy vocabulary which were a result of policy changes of government or of managerial changes of accountants.

Technological development describes those changes in accountancy vocabulary which were a result of new or improved mechanized tools which had a direct effect on business terminology, conditions, or procedures.

---

[9] M. Herbert Freeman, J. Marshall Hanna, and Gilbert Kahn, Bookkeeping and Accounting (New York: Gregg Publishing Division, McGraw-Hill Book Company, 1963), p. 442.

[10] The New Merriam-Webster Pocket Dictionary (New York: Pocket Book editions of Simon and Schuster, Inc., 1970), p. 55.

[11] Dictionary of Accounting Terminology (Cincinnati: South-Western Publishing Company, 1972), p. 12.

VI. LIMITATIONS OF THE STUDY

For the purpose of keeping this study within a feasible realm and scope, the following limitations are postulated:

1. It is based on the first year level secondary school accountancy instruction of the textbooks and the teachers' manuals accompanying them. South-Western Publishing Company's editions 1947-1972 and McGraw-Hill Book Company's editions 1953-1973 were used. (McGraw-Hill did not have a textbook published in 1947 or 1948.)
2. It is concerned only with social factors, technological developments, and accountancy practices which have had an effect on accountancy instruction.
3. It is based primarily on opinions of educators as revealed in their contributions to professional literature and indicated by textbook revisions.

VII. ORGANIZATION OF THE STUDY

Chapter I contains the historical background, the statement of the problem, the list of questions to be answered, the rationale for the study, the limitations of the study, and the organization of the study.

The review of the literature is presented in Chapter II; the procedures are outlined in Chapter III; an analysis of the data is included

---

[12]Emmanuel G. Mesthene, Technological Change, Its Impact on Man and Society (New York: New American Library, 1970), p. 28.

in Chapter IV, and the findings, conclusions and recommendations are presented in Chapter V.

CHAPTER II

REVIEW OF LITERATURE

A review of literature was made to determine whether or not similar investigations had been made in order to prevent a duplication of effort and also to become familiar with any research which would relate to and be helpful in the present study. No similar investigations were found.

According to Bright,[1] educational developments have been moving in the direction of accommodating the changing needs of society. Bright suggested some of the ways this has been done: through individualization of instruction, programmed learning, educational television, and computerized instruction. Bright says that the use of these media will be important factors in providing education of the scope and depth our young people need.

Mesthene[2] indicated that "it is becoming commonplace that modern technologies . . . affect society in important ways." He further stated that "new technologies have been bringing about social changes since the beginning of time."

---

[1]R. Louis Bright (Associate Commissioner for Research, U. S. Office of Education). "The Place of Technology in Educational Change," The Educational Technology Review, Ser. #1.

[2]Mesthene, Technological Change, Its Impact on Man and Society, p. v.

Linowes[3] wrote that the role of the CPA in our time is extending into the social area and he says that in our social institutions, many administrators do not know what they are supposed to be doing; that when they do know, they seldom possess management skills to develop successful programs, and that they have never been concerned with the bottom line of a profit and loss statement. He pointed out that "business organizations use accounting control and evaluative principles which government and social institutions can and ought to use, but do not." Linowes listed ten areas in social programs which he believes need the application of accounting and control principles. He said new principles for creating systems which can, with some reliability, produce social progress, must be developed, and he presented two areas of service to our society which accounting practitioners are best qualified to perform: (1) applying business accounting and control principles to social institutions and (2) adopting a means of giving visibility to corporate social actions. A relation to the present study can be seen to the extent that accounting principles which are taught are applied by these practitioners in the business society.

Freeman, Hanna, and Kahn stated that

> . . . Today's business world is undergoing a varitable revolution in practices and procedures--a revolution sparked by the impact of automation, data processing and the techniques of systems analysis. The manual procedures for processing financial data are rapidly being supplemented or displaced by the use of office machines, punched-card and punched-tape equipment, and computers . . . .[4]

---

[3]David T. Linowes, "The Accounting Profession and Social Progress," The Journal of Accountancy, 136 (July, 1973), pp. 32-40.

[4]M. Herbert Freeman, J. Marshall Hanna, and Gilbert Kahn. Accounting 10/12 (New York: McGraw-Hill Book Company, 1968), p. v.

Percy[5] wrote that present-day tendencies indicate that changes in instruction are necessary due to changed conditions in business and in schools. Percy reported ". . . accounting methods must constantly be changed to meet new business conditions." It is important for the student to have a broad viewpoint through the study of elementary principles of economics and business management. Percy also wrote that

> The . . . tendency in bookkeeping instruction is to place less emphasis on the purely vocational aspects of the subject and to give the pupil a better appreciation of the value of accounts from the standpoint of management than has been done in the past. This is due in part to the recognition of business as a profession, and to the specialization in office work. The apprenticeship aspect of office work is disappearing and the pupil is obliged to get much of his knowledge of business as a whole in the schoolroom.[6]

According to the American Institute of Accountants' Committee on Terminology,[7] there have been changes in accounting terms which have had to be applied to industrial and merchantile enterprises which have had an effect on accounting instruction.

Meurer[8] explained that data processing machines have become vital accounting tools in many firms because they have been applied to traditional as well as new jobs. Data processing is used by small as well as large companies.

---

[5]Alton L. Percy, The Social Values of Bookkeeping in the High School (New York: American Book Company), p. 3.

[6]Ibid., p. 27.

[7]Accounting Terminology Bulletins (1-4), prepared by the Committee on Terminology, American Institute of Accountants, 270 Madison Avenue, New York, New York, 1953, pp. 14-15.

[8]Ray Meurer, "Automatic Data Processing Centers for Small Businesses," Handbook of Accounting Methods, Third Edition, edited by J. K. Lasser Institute (New York: D. Van Nostrand Company, Inc., 1964), pp. 27-28.

According to Carlson,[9] in the early part of the twentieth century business records were simple, they were designed to give the owner the information he wanted, and there were no taxes, no government reports to make, and no special restrictions on how the records should be kept. However, with the advent of the Internal Revenue Act and the Social Security Act, many new requirements for record keeping and income reporting were imposed on businesses--requirements which were simple in the beginning have become more and more technical and more and more numerous. Carlson explained further:

> As professional accountants were trained and businesses developed sophisticated accounting departments, attention was directed toward improving accounting theory and accounting methods. Gradually groups of accountants such as the American Institute of Certified Public Accountants and the American Accounting Association began to make studies of accounting theory, terminology, and practice. The Pronounements have had a great impact on accounting practices in business and on the teaching of accounting.[10]

Carlson also stated that as bookkeeping machines were introduced, they had an impact on accounting practice and procedures and now we have electronic data processing which is having a further impact on practice and procedures.

Boynton, Carlson, Forkner, and Swanson[11] said that "the automated machine, in spite of it magical ability and impressive appearance, is

---

[9]Paul A. Carlson, Bookkeeping Instruction in the Twentieth Century and the Evolution of 20th Century Bookkeeping and Accounting, Monograph 118 (Cincinnati: South-Western Publishing Company, 1967), pp. 1 and 4.

[10]Ibid., p. 4.

[11]Lewis D. Boynton, Paul A. Carlson, Hamden L. Forkner, and Robert M. Swanson, Basic Bookkeeping and Accounting, Adult and Continuing Education Series (Cincinnati: South-Western Publishing Company, 1968), p. vi.

but a tool." The machine needed a hand and a mind to guide it to put the numbers where they belonged on stone tablets. From the chisel used in early civilizations to present-day automatic machines, the use of tools has been governed by principles. Further, they stated that

> Before automation can be applied to bookkeeping records, it is necessary to plan the kinds of records that will be needed. When the automated equipment produces records, it is necessary to interpret the records. Each of these steps requires a thorough knowledge of the total bookkeeping process. Whether a business owns its own data processing equipment or whether it uses the services of agencies that process bookkeeping data, a knowledge of bookkeeping is necessary in order to know what the records mean.[12]

Various government agencies have been given the power to impose special reporting requirements on business firms, therefore, they have had some influence on accounting methods. According to Hill and Gordon,[13] the greatest impact resulted from the levying of taxes upon personal and corporate incomes.

All business records in recent years have been affected by legislation and social movements. The Federal Income Tax Law led the legislative movement. Later states enacted state income tax laws, state sales tax laws, and merchantile tax laws; also, municipal governments and school boards added a great variety of taxes.

Legislation is not the only factor that has altered bookkeeping and accounting procedures. Deductions from salaries for the payment of union

---

[12] Ibid.

[13] Thomas M. Hill and Myron J. Gordon, Accounting, A Management Approach (Homewood, Ill.: Richard D. Irwin, Inc., 1959), p. 8.

dues, hospitalization and other forms of group insurance require the careful keeping of records.[14]

This concludes the review of literature. Chapter III outlines the procedures followed in completing this study.

CHAPTER III

PROCEDURES

The purpose of the study was to identify social factors, technological developments, or accountancy practices affecting secondary school accountancy instruction, 1947-1973.

The questions to be answered were:

1. What was the frequency of use of accountancy illustrations in secondary school accounting textbooks?
2. What was the total number and percent of change in selected instructional materials in secondary school accounting textbooks?
3. What accountancy vocabulary was used in secondary school classes from 1947 to 1973?
4. What social factors, technological developments, or accountancy practices affected secondary school accountancy instruction between 1947 and 1973?

The nature of this study lends itself more to a summary of the procedures in outline form rather than in narrative descriptive format. The enumerated procedures are as follows:

I. Reviewed the literature for studies relating to the present one.

II. Presented a brief introductory historical background of accounting by era as outlined below:

A. Middle Ages

B. Renaissance Era

C. Industrial Revolution Era

D. Automation Era

III. Criteria for the selection of the accounting textbooks[1] used included:

A. those which appeared to be the most widely used were chosen, and

B. those with a consistency in publication.

IV. Developed a chronology of change in secondary school accountancy instruction. The chronology followed the procedure given below and was implemented for each of the two accountancy textbooks selected for this study.

---

[1]Paul A. Carlson, Hamden L. Forkner, and Alva Leroy Pricket, 20th Century Bookkeeping and Accounting (Cincinnati: South-Western Publishing Company, 1947, 1952); Carlson, Forkner, and Lewis D. Boynton, 20th Century Bookkeeping and Accounting (Cincinnati: South-Western Publishing Company, 1957, 1962); Boynton, Carlson, Forkner, and Robert M. Swanson, 20th Century Bookkeeping and Accounting (Cincinnati: South-Western Publishing Company, 1967); and Boynton, Swanson, Carlson, and Forkner, Century 21 Accounting (Cincinnati: South-Western Publishing Company, 1972). These books are hereinafter referred to as Book One.

M. Herbert Freeman, J. Marshall Hanna, and Gilbert Kahn, Bookkeeping Simplified (New York: Gregg Publishing Division, McGraw-Hill Book Company, Inc., 1953); Freeman, Hanna, and Kahn, Bookkeeping and Accounting Simplified (New York: Gregg Publishing Division, McGraw-Hill Book Co., Inc., 1958 and 1963); Freeman, Hanna, and Kahn, Accounting 10/12 (New York: Gregg Publishing Division, McGraw-Hill Book Company, 1968); Freeman, Hanna, Kahn, and David H. Weaver, Accounting 10/12, 2nd ed. (New York: Gregg Publishing Division, McGraw-Hill Book Company, 1973). These books are hereinafter referred to as Book Two.

A. Analyzed textbook illustrations by

1. making a tally of the illustrations in each edition of the textbook and totaling according to the type of illustration;
2. computing a percentage of change (increase or decrease) from one edition to the next;
3. computing the total number of illustrations (all types) for each edition of the textbook;
4. computing a percentage of change in total illustrations for each edition of the textbook comparing it with the base year; and
5. preparing a table and a graph showing the results of these comparisons.

B. Analyzed selected "suggested instructional materials" by

1. selecting those instructional materials suggested by the textbook authors which appeared to be feasible for calculating purposes;
2. making a list of the selected suggested instructional materials;
3. computing a total of the selected suggested instructional materials for each edition;
4. computing a percent of change from one edition to the next;

5. computing a percent of change in the total listing of the selected suggested instructional materials compared with the base year: and
6. making a table and a graph showing the results of these comparisons.

C. Compiled an alphabetic listing of all the vocabulary terms used in each edition of the textbook based on the end-of-the-chapter emphasis on vocabulary review. This was done by:

1. making a table reporting changes in each edition of the textbook (For example, using the South-Western textbook, the 1947 edition was compared with the 1952 edition, the 1952 edition was compared with the 1957 edition. The same procedures were followed for all editions of the two textbooks.);
2. identifying a rationale as indicated by textbook authors for each accountancy term; or, identifying an assumed rationale, containing a great deal of subjectivity, for each accountancy term that was included or excluded in the end-of-the-chapter vocabulary review for each edition;
3. reviewing the content of each edition of both textbooks to determine whether the vocabulary terms were used in the content and not used in the end-of-the-chapter vocabulary review list

or whether it was a new term or one deleted from the textbook for some reason;

4. summarizing both graphically and in table format the total number of vocabulary terms used in each edition's end-of-the-chapter vocabulary review; and
5. computing a percent of change from edition to edition and from the base year to each edition.

D. Identified vocabulary terms affected by social factors, technological developments, or accountancy practices.

The next chapter contains an analysis of data obtained from the review of two textbooks selected for this study.

CHAPTER IV

ANALYSIS OF DATA

I. INTRODUCTION

Two secondary school accounting textbooks were selected for this study--the 1947-1972 editions of the South-Western Publishing Company textbooks and the 1953-1973 editions of the Gregg Publishing Division of McGraw-Hill Book Company textbooks. (A Gregg book was not published in 1947 or 1948.) The criteria used in the selection of these textbooks were:

1. they appeared to be the most widely used, and
2. the consistency in publication.

A chronology of change in secondary school accountancy instruction was developed for each of the two accountancy textbooks selected for this study. The chronology included changes in textbook illustrations, instructional materials and vocabulary terms. Frequency and percentage data are reported for each edition, the percent of change from one edition to the succeeding edition and the percent of change of each edition in relation to the base year.

An alphabetic listing of all the vocabulary terms used in all editions of Book One (South-Western) can be found in Appendix A. An asterisk (*) is used to indicate the edition(s) in which each term was emphasized in the end-of-the chapter vocabulary study. All the

terms used in Book Two (Gregg) are listed in Appendix B. A combined alphabetic listing of all vocabulary words emphasized in both textbooks reviewed in this study can be found in Appendix D.

II. BOOK ONE: SOUTH-WESTERN PUBLISHING COMPANY

Textbook Illustrations (1947-1972)

Table I, page 23, reports textbook illustrations of Book One. The illustrations in each edition of the text were tallied and totaled according to the type of illustration. A percentage of change (increase or decrease) was computed for the purpose of comparison.

Table I reports 301 accounting forms, 34 source documents, 15 real life, 21 "T" accounts, and no flow charts illustrated throughout the 1947 edition of Book One.

In 1952, illustrations appeared in the textbook as: 323 accounting forms, 36 source documents, 20 real life, 26 "T" accounts, and no flow charts. The change in illustrations between the 1947 edition and the 1952 edition was a 7 percent increase in accounting forms; a 5.8 percent increase in source documents, a 33.3 percent increase in real life illustrations; a 23.8 percent increase in "T" accounts; and no change in flow charts.

In the 1957 edition there were 296 accounting forms, 41 source documents, 19 real life, 26 "T" accounts and no flow charts. The percentage of change in each type of illustration between the 1952 and the 1957 editions was as follows: accounting forms, 8 percent decrease; source documents, 13.8 percent increase; real life illustrations, 5

TABLE I

FREQUENCY[a] AND PERCENT OF CHANGE OF TEXTBOOK ILLUSTRATIONS
BOOK ONE

Illustration	1947	1952	% Change	1957	% Change	1962	% Change	1967	% Change	1972	% Change
Accounting forms	301	323	7.0	296	-8.0	283	-4.0	296	4.0	303	2.0
Source documents	34	36	5.8	41	13.8	38	-7.3	42	10.5	47	11.9
Real life	15	20	33.3	19	-5.0	38	100.0	52	37.8	51	-1.9
"T" accounts	21	26	23.8	26	0.0	48	84.6	108	125.0	97	-10.1
Flow charts	0	0	0.0	0	0.0	0	0.0	20	2000.0	44	120.0
Total	371	405		382		407		518		542	
Percent of totals compared with base year			9.2		2.7		9.7		39.6		46.1

[a]As indicated by count of illustrations in each edition of the textbook.

percent decrease; "T" accounts, no change; and flow charts, no change.

In 1962, illustrations appeared in the textbook as: 283 accounting forms, 38 source documents, 38 real life, 48 "T" accounts, and no flow charts. The change in illustrations between the 1956 edition and the 1962 edition represented a 4 percent decrease in accounting forms, a 7.3 percent decrease in source documents, a 100 percent increase in real life illustrations, an 84.6 percent increase in "T" accounts, and no change in flow charts.

The illustrations in the 1967 edition included 296 accounting forms, 42 source documents, 52 real life, 108 "T" accounts, and 20 flow charts. The change in illustrations between the 1962 edition and the 1967 edition represented a 4 percent increase in accounting forms; a 10.5 percent increase in source documents; a 37.8 percent increase in real life illustrations, a 125 percent increase in "T" accounts, and a 2000 percent increase in flow charts.

In 1972, there were 303 accounting forms, 47 source documents, 51 real life, 97 "T" accounts, and 44 flow charts. The change in illustrations between the 1967 edition and the 1972 edition represented a 2 percent increase in accounting forms; an 11.9 percent increase in source documents; a 1.9 percent decrease in real life; a 10.1 percent decrease in "T" accounts; and a 120 percent increase in flow charts.

Instructional Materials (1947-1972)

Table II, page 25, reports selected instructional materials as suggested by the textbook teachers' manuals. A list of suggested

TABLE II

ANALYSIS OF SELECTED
"SUGGESTED INSTRUCTIONAL MATERIALS"[b]
BOOK ONE

Instructional Material	1947	1952	1957	1962	1967	1972
Booklets		*	*	*	*	*
Motion Pictures/Films	*	*	*	*	*	*
Filmstrips	*	*	*	*	*	*
Wall Charts	*	*	*	*	*	*
Glass Slides		*	*	*	*	*
Tape Recordings		*				
Radio and Television		*				
Field Trips		*	*	*	*	*
Overhead Projector and Transparencies		*	*	*	*	*
Income Tax Kit				*	*	*
Social Security Kit				*	*	*
Trans-Vision Inserts						*
Reference Materials (books, magazines, etc.)	*	*	*			
Community Resources	*	*	*	*	*	*
Working Papers (Workbooks)	*	*	*	*	*	*
Printed Tests	*	*	*	*	*	*
Study Guides	*	*	*	*	*	*
Practice Sets	*	*	*	*	*	
Simulation Sets						*
Dictionary of Accounting Terminology						*
Total	9	15	13	14	14	16
Percent Change by Edition		66.7	-13.3	7.6	0	14.3
Percent Change, Base Year		66.7	44.4	55.6	55.6	77.8

[b]Instructional materials suggested by textbook authors in teachers' manuals.

materials was made and a total computed for each edition. A percent of change from one edition to the next was computed. In the 1947 edition there were 9 suggested instructional materials; in 1952 there were 15 instructional materials which was an increase of 66.7 percent. In 1957 there were 13 suggested instructional materials which was a decrease of 13.3 percent over the 1952 edition. In 1962 there were 14 suggested instructional materials, an increase of 7.6 percent over the 1957 textbook instructional materials. In 1967 there were 14 suggested instructional materials, no change in percentage over the 1962 edition. In 1972 there were 16 suggested instructional materials, an increase of 14.3 percent over the 1967 edition.

Changes in Terminology (1947-1972)

Tables III-VII report the major changes in Book One terminology between 1947 and 1972 as indicated by the end-of-the-chapter emphasis on vocabulary in each edition. The rationale for terminology changes was based on statements by the authors in the texts and/or manuals. The assumed rationale for these changes was based on the researcher's evaluation of social factors, technological developments, or accountancy practices as indicated by reviews of contemporary literature and textbook content. Terms represented by an asterisk (*) are terms used in the text of both editions but did not exist in the end of chapter listings for the one edition. The content of each textbook was reveiwed to determine whether the term had been used, whether it was a new term, or whether it was a term being deleted for some reason.

TABLE III

CHANGE IN TERMINOLOGY 1947-1952
AND RATIONALE

1947	1952	Rationale	Assumed Rationale
abstract of accounts payable	schedule of accounts payable	AAA recommendation (A)	
abstract of accounts receivable	schedule of accounts receivable	AAA recommendation (A)	
adjusted trial balance			changed from 10-column to 8-column work sheet (A)
reserve for bad debts	allowance for bad debts	preferred by accountants (A)	
reserve for depreciation	allowance for depreciation	preferred by accountants (A)	
annuities			combined with social security deposits (S)
	bad debts expense		new account to record expense from bad debts (A)
*	balance column ledger ruling		
*	books of original entry		
*	debit column		

TABLE III (Continued)

1947	1952	Rationale	Assumed Rationale
deferred charges		listed with current assets (A)	
*	division of the ledger		
accounting period	fiscal period		to conform with modern business practices (A)
*	general journal		
invoice	*		
*	terms of an invoice		
membership record card	membership record book		a book was used (A)
miscellaneous current entries	miscellaneous day-to-day entries		the two terms were used interchangeable (A)
*	net decrease in capital		
*	open account		
*	opening the account		
out of balance	*		
pensions			included in social security deposits (S)
property taxes			discontinued (A)
rate of estimated depreciation	*		
recapitulation form			merged with combination journal (A)
*	sale on account		
sales tax	*		

TABLE III (Continued)

1947	1952	Rationale	Assumed Rationale
taking inventory	*		
*	total decrease in capital		
*	trade discount		
*	trial balance in balance		
*	trial balance out of balance		
*	verifying extensions		
goodwill			discontinued

*These terms were used in the content of both editions of the textbook but were not found in the end-of-the-chapter vocabulary listing for this edition.

S = Social Factors T = Technological Developments A = Accountancy Practices

TABLE IV

CHANGE IN TERMINOLOGY 1952-1957
AND RATIONALE

1952	1957	Rationale	Assumed Rationale
account in balance	*		
*	accounts receivable		
*	adjustments		
*	bank statement		
*	book value		
*	cash		
*	cash items		
	cash method of handling		
*	purchases		
*	cash sale		
life insurance cash value	cash surrender value		change in title (A)
charge sale	*		
*	cashbook		
*	columnar journal		
combined cash journal	combined journal		cash journal is included in combined journal (A)
*	credit column		
*	credit side		

TABLE IV (Continued)

1952	1957	Rationale	Assumed Rationale
credits	*		
*	debit column		
*	debit side		
debits	*		
*	deficit		
dishonored	*		
*	dishonored note		
division of the ledger			term discontinued (A)
double page cash book	*		
*	drawer		
*	drawing account		
	earned surplus		replaced surplus (A)
indorsement	endorsement		change in spelling (A)
*	endorsing		
expense accounts	*		
	FICA tax	change in terminology by federal government (S)	
profit on fixed assets	gain on fixed assets		up-date term to comply with modern business usage (A)
*	immediate record		
in balance	*		

TABLE IV (Continued)

1952	1957	Rationale	Assumed Rationale
income accounts	*		
journal entry	*		
list prices	*		
fixed liabilities	long-term liabilities		up-date term (A)
*	maker of a note		
*	maturity date of a note		
*	memorandum entry		
miscellaneous day-to-day entries	miscellaneous entries		up-date term (A)
*	net cost of merchandise purchased		
*	net increase in capital		
*	net profit from operations		
*	net purchases		
*	net sales		
*	notes payable		
notes payable		most small businesses at that time did not have a need for notes registers (A)	
*	notes receivable		
notes receivable register		most small businesses at that time did not have a need for notes registers (A)	

TABLE IV (Continued)

1952	1957	Rationale	Assumed Rationale
open account	*		
*	other expenses		
*	other income		
passbook	*		
*	payee		
*	payee of a note		
*	payroll		
*	payroll clerks		
payroll taxes	*		
petty cash book	*		
principal	principal of a note		up-date term (A)
*	purchases account		
social security deposits	*		
special journal			discontinued--each type of special journal is used individually (A)
	special column		new term (A)
*	state unemployment tax		
supplies used	*		
*	supporting schedules		
*	2/10, n/30		
terms of an invoice	*		
total decrease in capital	*		
	transportation on		
*	purchases		

*These terms were used in the content of both editions of the textbook but were not found in the end-of-the-chapter vocabulary listing for this edition.

S = Social Factors T = Technological Developments A = Accountancy Practices

TABLE V

CHANGE IN TERMINOLOGY 1957-1962
AND RATIONALE

1957	1962	Rationale	Assumed Rationale
*	account number		
accounts payable account	*		
accounts receivable account	*		
	automated equipment		automation (T)
	automation		automation (T)
	blank endorsement		new term (A)
bookkeeper	*		
books of original entry	*		
cash items			replaced by "currency" on deposit ticket (A)
	cash journal		new special journal was introduced
cash method of handling purchases	*		
	cash payments transactions		
*	*		
cash transaction			
cashbook			replaced by cash receipts journal and cash payments journal (A)

TABLE V (Continued)

1957	1962	Rationale	Assumed Rationale
*	charter		
*	checking account		
closing entries	*		
columnar cash payments journal			
columnar cash receipts journal	combination journal		the combination journal is used to combine several journals into one as the book of original entry (A)
columnar general journal			
columnar journal			
combined cash journal			
*	common stock		
profit and loss summary account	income and expense summary account		use of modern accounting terminology (A)
statement of income and expenses	income statement		use of modern accounting terminology (A)
	magnetic ink characters		innovations in modern banking procedures (T)
	magnetic ink character reader		innovations in modern banking procedures (T)
	magnetic ink character recognition		innovations in modern banking procedures (T)
membership record book			term discontinued (A)

TABLE V (Continued)

1957	1962	Rationale	Assumed Rationale
minus asset	*		
net cost of merchandise purchased			discontinued use of transportation on purchases on income statement (A)
*	net purchases		
net profit	net income		up-date terminology (A)
net profit from operations	net income from operations		up-date terminology (A)
net increase in capital			discontinued computing present capital on Balance Sheet (A)
*	opening a ledger		
other expenses	*		
other income	*		
payroll clerks	*		
	perpetual inventory		new term used in preparing adjustments on work-sheet (A)
*	physical inventory		
*	preferred stock		
present capital	*		
purchases account	*		
receipt book			discontinued (A)

TABLE V (Continued)

1957	1962	Rationale	Assumed Rationale
	restrictive endorsement		new term (A)
*	retained earnings		
	sales tax		a new chapter is presented on the method of recording sales taxes (A)
	savings account		banking term (A)
*	depositor		
	dishonored check		banking term (A)
divided column journal	*		
drawing account	*		
earned surplus	*		
	endorsement in full		new term (A)
*	entry		
equipment record card			term discontinued (A)
	equities		used as "net worth" or "proprietorship" (A)
*	exemption		
grand total	*		
profit and loss statement	income and expense statement		up-date term (A)
shares	*		
*	shares of stock		
*	single entry bookkeeping		

TABLE V (Continued)

1957	1962	Rationale	Assumed Rationale
special column	*		
2/10, n/30	*		
	"T" account		new way of analyzing the debit and credit parts of transactions (A)
*	terms of sale		
transportation on purchases	*		
treasurer			discontinued (A)
treasurer's report			discontinued (A)
trial balance in balance	*		
trial balance out of balance	*		
verifying extensions	*		

*These terms were used in the content of both editions of the textbook but were not found in the end-of-the-chapter vocabulary listing for this edition.

S = Social Factors T = Technological Developments A = Accountancy Practices

TABLE VI

CHANGE IN TERMINOLOGY 1962-1967
AND RATIONALE

1962	1967	Rationale	Assumed Rationale
account form of balance sheet	*		
	accountant		replaced bookkeeper (A)
accounts receivable	*		
*	accrued interest expense		
*	accrued interest income		
adjusting entry	*		
	aging accounts receivable		used in analyzing accounts receivable (A)
allowance for bad debts	*		
allowance for depreciation	*		
	autographic register		automation and data processing (DP) (T)
	automated data processing		automation and DP (T)
balance column ledger ruling	*		
bank passbook	*		
	binary number system		automation and DP (T)
budget	*		

TABLE VI (Continued)

1962	1967	Rationale	Assumed Rationale
	calculator		automation (T)
	capital statement		introduction of new financial statement (A)
	carbon-pack		automation and DP
	card-punch machine		automation and DP
*	cash receipts transaction		
cash short	*		
	charge-a-plate		automation (T)
	collator		automation and DP
collection docket			discontinued (A)
*	cost of merchandise sold		
*	credit column		
credit amount column	*		
*	credit side		
*	customers		
	cycle billing		automation and DP (T)
	data		automation and DP (T)
	data processing		automation and DP (T)
*	date of a note		
debit amount column	*		
*	debited		
*	debits		
deposit ticket	deposit slip		modern terminology (A)
	direct-write-off of uncollectible accounts		used in handling bad debts (A)

TABLE VI (Continued)

1962	1967	Rationale	Assumed Rationale
discount on sales	*		
*	dividend on capital stock		
*	electronic computer		
	electronic computer system		automation and DP
*	employee's earning record		
	estimated scrap value		modern term for book value (A)
*	fixed asset record		
	flow chart		automation and DP (T)
	f.o.b. destination		new method of indicating transportation charges for delivery of merchandise (A)
	f.o.b. shipping point		new method of indicating transportation charges for delivery of merchandise (A)
	FUTA tax	change in terminology by federal government (S)	
immediate record	source document		up-dated to include terms commonly used in data processing (T)

TABLE VI (Continued)

1962	1967	Rationale	Assumed Rationale
income and expense statement	*		
*	input		
*	input media		
*	inventory		
*	list prices		
livestock purchased cost			chapter eliminated from textbook (A)
livestock purchased sales			chapter eliminated from textbook (A)
*	making a deposit		
	manual data processing		used to distinguish bookkeeping by hand from automated data processing (A)
	Medicare		federal legislation (S)
merchandise received for produce			chapter eliminated from textbook (A)
*	merchandising business		
	notes payable register		automation and DP (T)
	notes receivable register		automation and DP (T)
*	operating expenses		
	output		automation and DP (T)
	output media		automation and DP (T)

TABLE VI (Continued)

1962	1967	Rationale	Assumed Rationale
*	outstanding deposit		
patient's record card			chapter eliminated from textbook (A)
	pegboard		automation and DP (T)
	program		automation and DP (T)
	programmer		automation and DP (T)
schedule of farm income and expenses			chapter eliminated from textbook (A)
*	proprietor		
	sorter		automation and DP (T)
	storage		automation and DP (T)
*	straight-line method of depreciation		
	tabulating		automation and DP (T)
	tabulator		automation and DP (T)
*	terms of a note		
	unit record		automation and DP (T)
	verifier		automation and DP (T)
*	voiding a check		
	write-it-once principle		automation and DP (T)
*	writing off an account		

*These terms were used in the content of both editions of the textbook but were not found in the end-of-the-chapter vocabulary listing for this edition.

S = Social Factor T = Technological Development A = Accountancy Practices

TABLE VII

CHANGE IN TERMINOLOGY 1967-1972
AND RATIONALE

1967	1972	Rationale	Assumed Rationale
bookkeeping	accounting		acceptance of term "accounting" (A)
bookkeeper	accounting clerk		modern terminology (A)
bookkeeping cycle	accounting cycle		modern terminology (A)
bookkeeping equation	accounting equation		modern terminology (A)
	accounting records		modern terminology (A)
*	accrued salary expense		
articles of copartnership	*		
*	articles of incorporation		
	automated data processing cycle		automation and DP (T)
	auxiliary storage		automation and DP (T)
binary number system	*		
	block diagram		automation and DP (T)
	book value of accounts receivable		modern usage in determining the difference between balance of accounts receivable and the amount estimated to be uncollectible (A)

TABLE VII (Continued)

1967	1972	Rationale	Assumed Rationale
*	book of original entry		
*	book of secondary entry		
bookkeeping machine	*		
	book value of a fixed asset		
*			
*	capital		
carbon-pack	*		
card-punch machine	card punch		automation and DP (T)
	card reader		automation and DP (T)
cash payments transaction	*		
	cash proof and balance slip		
*			
cash receipts transaction	*		
cash sale	*		
	central processing unit		automation and DP (T)
certificate of incorporation	*		
charge-a-plate	credit card		update terminology (A)
	computer		automation and DP (T)
credit column	*		
credited	*		
*	credit or credit entry		
*	credit sale		

TABLE VII (Continued)

1967	1972	Rationale	Assumed Rationale
	data communications		automation and DP (T)
	data processing cycle		automation and DP (T)
	data processing system		automation and DP (T)
debited	*		
*	debit or debit entry		
*	debit memorandum		
detailed audit strip	detailed audit tape		automation and DP (T)
*	discounted note		
*	distribution of net income statement		
double-entry book-keeping			use of accounting in place of bookkeeping (A)
electronic computer	*		
electronic computer system	*		
manual data processing	*		
*	electronic data processing		
	financial activities		new term (A)
*	fiscal period		
FUTA tax	*		
*	incorporators		

TABLE VII (Continued)

1967	1972	Rationale	Assumed Rationale
	internal storage		automation and DP (T)
	journalless accounting		automation and DP (T)
	ledgerless accounting		automation and DP (T)
net loss	loss		modern usage (A)
	magnetic tape drive		automation and DP (T)
*	memorandum		
miscellaneous entries	*		
	merging		automation and DP (T)
*	open account		
*	packing list		
	paper tape reader		automation and DP (T)
*	pay period		
*	payroll clerks		
*	payroll register		
petty cash fund	petty cash		modern usage (A)
	printer		automation and DP (T)
	printout		automation and DP (T)
*	processing		
*	profit		
proprietorship	*		
*	sole proprietorship		
*	punched card		

TABLE VII (Continued)

1967	1972	Rationale	Assumed Rationale
*	purchase invoice		
*	sales discount		
sales slip	sales invoice		used interchangeably (A)
single entry bookkeeping	single entry accounting		use of "accounting" in place of bookkeeping (A)
tabulating	*		
	symbolic flow chart		automation and DP (T)
	temporary capital account		used in summarizing the net increase or decrease in capital--new term (A)
*	total earnings		
unit record	*		
*	unit record card		
	unit record equipment		automation and DP (T)
	unit set		replaces the use of carbon-pack (T)
*	verifying		
*	withdrawal of merchandise		

*These terms were used in the content of both editions of the textbook but were not found in the end-of-the-chapter vocabulary listings for this edition.

S = Social Factors T = Technological Developments A = Accountancy Practices

Table III, page 28, reports the changes in terminology between the 1947 edition and the 1952 edition. Two changes were made to conform with American Accounting Association (AAA) recommendations; three were made to agree with those preferred by accountants, four were combined with other terms, one was eliminated because of a change in a working paper, two terms are used interchangeably, three terms were used for the first time, four terms were completely eliminated. Sixteen terms are used in the text of both editions but only found in the vocabulary listing of one edition. Thirteen terms changed between the 1947 edition and the 1952 edition as a result of accountancy practice; two terms changed as a result of social factors.

Table IV, page 31, reports the differences between the end-of-the-chapter emphasis in vocabulary in the 1952 edition and the 1957 edition. During this period the majority of terms were used in both editions but emphasized in only one. One change was due to a federal government change in terminology. In one instance the spelling of a term was changed. Four new terms brought about by the addition of a chapter were added. These terms combined two or more previous terms. Two terms were discontinued because at that time they were not needed by most small businesses. Thirteen terms changed between the 1952 edition and the 1957 edition as a result of accountancy practice; one term changed as a result of social factors.

Table V, page 35, reports the differences between the vocabulary emphasis in the 1957 and the 1962 editions. Two changes during this period resulted from the inclusion of automation. Five changes were

caused by the placing of more emphasis on banking procedures. Ten changes were brought about by updating terms to agree with modern business use. Six terms were discontinued because of deletions of certain chapters in the 1962 edition of the textbook. Two new terms were added because of changes made in preparing a worksheet. Twenty-six terms changed between the 1957 edition and the 1962 edition as a result of accountancy practices; five terms changed as a result of technological developments.

Table VI, page 41, reports the changes in terminology between 1962 and 1967 as indicated by the end-of-the-chapter vocabulary emphasis in each of the textbook editions for these years. Nine terms were changed to conform with business usage at that time. Six terms were eliminated because of the deletion of two chapters from the textbook. Two changes were due to federal legislation and 43 terms were used in both textbooks but emphasized in the vocabulary listing in only one. Twenty-two terms changed between the 1962 edition and the 1967 edition as a result of technological developments; 12 terms changed as a result of accountancy practices; one term changed as a result of social factors.

Table VII, page 46, reports the changes in terminology as indicated by comparing the 1967 and the 1972 editions of the textbook. In 1972, the title of this textbook was changed to include the word "Accounting." Six terms were changed to agree with modern business practices. Forty-seven terms were used in the text of both editions but were found in the vocabulary listing of one edition.

Twenty-two terms changed between the 1967 edition and the 1972 edition as a result of technological developments; twelve terms changed as a result of accountancy practices.

III. BOOK TWO: McGRAW-HILL BOOK COMPANY

Textbook Illustrations (1953-1973)

Table VIII, page 52, reports textbook illustrations of Book Two. The illustrations in each edition were tallied and totaled according to the type of illustration. A percentage of change (increase or decrease) was computed for the purpose of comparison.

Table VIII, reports 257 accounting forms, 59 source documents, 7 flow charts, 16 real life, and 47 "T" accounts. The change in illustrations between the 1953 edition and the 1958 edition was a 5 percent increase in accounting forms; an 8 percent increase in source documents; a 14 percent decrease in flow charts; a 25 percent decrease in real life illustrations; and a 29.8 percent decrease in "T" accounts.

In 1963, textbook illustrations appeared as follows: 239 accounting forms; 54 source documents; 10 flow charts; 24 real life illustrations; and 41 "T" accounts. The percentage of change in each type of illustration between the 1958 edition and the 1963 edition was as follows: accounting forms, 11.5 percent decrease; source documents, 15.6 percent decrease; flow charts, 66.7 percent increase; real life illustrations, 100 percent increase; and "T" accounts, 24 percent increase.

TABLE VIII

FREQUENCY[C] AND PERCENT OF CHANGE OF TEXTBOOK ILLUSTRATIONS
BOOK TWO

Illustrations	1953	1958	% Change	1963	% Change	1968	% Change	1973	% Change
Accounting Forms	257	270	5.0	239	-11.5	315	31.8	260	-17.4
Source Documents	59	64	8.0	54	-15.6	158	192.0	54	-65.7
Real Life	16	12	-25.0	24	100.0	50	108.0	52	4.0
"T" Accounts	47	33	-29.8	41	24.0	88	114.0	29	-68.0
Flow Charts	7	6	-14.0	10	66.7	60	500.0	53	-21.7
Total	386	385		368		671		448	
Percent of totals compared with base year			-.25		-5.0		74.0		16.0

[C]As indicated by count of illustrations in each edition of the textbook.

In 1968, illustrations appeared in the textbook as: 315 accounting forms, 158 source documents, 60 flow charts, 50 real life illustrations and 88 "T" accounts. The change in illustrations between the 1963 edition and the 1968 edition represented a 31.8 percent increase in accounting forms; a 192 percent increase in source documents; a 500 percent increase in flow charts; a 108 percent increase in real life illustrations; and a 114 percent increase in "T" accounts.

In 1973 illustrations appeared in the textbook as follows: 260 accounting forms, 54 source documents, 53 flow charts, 52 real life illustrations, and 29 "T" accounts. The change in illustrations between the 1968 edition and the 1973 edition represents a decrease of 17.4 percent in accounting forms; a decrease of 65.7 percent in source documents; a 21.7 percent decrease in flow charts; a 4 percent increase in real life illustrations; and a 68 percent decrease in "T" accounts.

Instructional Materials (1953-1973)

Table IX, page 54, reports selected instructional materials as suggested by the textbook teacher's manuals. A list of suggested materials was made and a total computed for each edition. A percentage of change from one edition to the next was computed. In the 1953 edition there were 9 suggested instructional materials; in 1958 there were 11 instructional materials, which was an increase of 22 percent. In 1963 there were 10 suggested instructional materials which was a 9 percent decrease over 1958. In 1968 there were 9 suggested instructional materials; a decrease of 10 percent when compared with the 1963

TABLE IX

ANALYSIS OF SELECTED
"SUGGESTED INSTRUCTIONAL MATERIALS"[d]
BOOK TWO

Instructional Material	1953	1958	1963	1968	1973
Filmstrips	*	*	*	*	*
Films	*	*	*	*	*
Wall Charts				*	*
Field Trips	*	*	*		
Overhead Projectors and Transparencies	*	*	*	*	*
Reference Materials	*	*	*	*	*
Workbooks	*	*	*	*	*
Learning Guides	*	*	*	*	*
Practice Sets	*	*	*	*	*
Tests	*	*	*	*	*
Copies of Financial Statements from Newspaper		*			
Multimedia					*
Adding Machines		*	*		
Total	9	11	10	9	10
Percent Change by Edition		22	-9	-10	11
Percent Change, Base Year		22	11	0	11

[d]Instructional materials suggested by textbook authors.

edition. In 1973, there were 10 instructional materials, representing an 11 percent increase over the 1968 edition.

Changes in Terminology (1953-1973)

Tables X-XIII report the major changes in Book Two terminology between 1953 and 1973 as indicated by the vocabulary emphasis. The rationale for terminology changes weas based on statements by the authors in the texts and/or manuals. The assumed rationale for these changes was based on the writer's evaluation of social factors, technological developments, or accountancy practices as indicated by reviews of contemporary literature and textbook content. Terms represented by an asterisk (*) are terms used in the text of both editions but did not exist in the end of chapter listings for the one edition. The content of each textbook was reviewed to determine whether the term had been used, whether it was a new term, or whether it was a term being deleted from the textbook for some reason.

Table X, page 56, reports the changes in terminology between the 1953 edition and the 1958 edition. Two terms changed due to accountancy practices. One change was due to a change in federal government terminology. Five terms were used in the text of both editions but only found in the vocabulary listing of one edition. Two terms changed between the 1953 edition and the 1958 edition as a result of accountancy practices; one term changed as a result of social factors.

Table XI, page 57, reports the differences between the vocabulary in 1958 and 1963. Sixty-four new terms were introduced in conjunction with automation and data processing. Twenty-three terms were added

TABLE X

CHANGE IN TERMINOLOGY 1953-1958
AND RATIONALE

1953	1958	Rationale	Assumed Rationale
	accounts receivable ledger		
*			
reserve for bad debts	allowance for bad debts		preferred by accountants (A)
reserve for depreciation	allowance for depreciation		preferred by accountants (A)
*	creditors ledger		
social security deductions	FICA deductions		change in terminology by federal government (A)
*	shareholder		
*	specie		
*	stockholders		

*These terms were used in the content of both editions of the textbook but were not found in the end-of-the-chapter vocabulary listing for this edition.

S = Social Factors T = Technological Developments A = Accountancy Practices

TABLE XI

CHANGE IN TERMINOLOGY 1958-1963
AND RATIONALE

1958	1963	Rationale	Assumed Rationale
	access time	**	
	accounting machine	**	
	accounts receivable register	**	
	aging accounts receivable		managerial accountancy approach (S)
	audit		managerial accountancy approach (S)
	automatic digital computer	**	
	automation	**	
	average inventory		new term used to determine inventory for a given period (A)
	balance-forward card	**	
	binary number system	**	
	branches		managerial accountancy approach

TABLE XI (Continued)

1958	1963	Rationale	Assumed Rationale
	breakeven point		managerial accountancy approach (S)
	budget		managerial accountancy approach (S)
	card fields	**	
	card-to-tape converter	**	
	cash control		managerial accountancy approach (S)
*	cash receipts register		
	central processing unit	**	
	channels	**	
	character-sensing	**	
	common language	**	
	computyper	**	
	console	**	
	credit manager		managerial accountancy approach (S)
*	credit rating		
customers' ledger	*		
	cropped corners	**	
	data processing	**	
	data transceiving	**	

TABLE XI (Continued)

1958	1963	Rationale	Assumed Rationale
	decisions	**	
	delinquent account		managerial accountancy approach (S)
*	discount period		
	EDP/electronic data processing	**	
indorsement	endorsement		change in spelling (A)
	Flexowriter	**	
	flow chart	**	
	funds		managerial accountancy approach (S)
	grouping	**	
	group printing	**	
	IDP/integrated data processing	**	
profit and loss summary account	income and expense summary account		update terminology (A)
profit and loss statement	income statement		update terminology (A)
	input	**	

TABLE XI (Continued)

1958	1963	Rationale	Assumed Rationale
	investment capital		managerial accountancy approach (S)
	key-punch machine	**	
	labor costs		managerial accountancy approach (S)
	ledgerless bookkeeping	**	
	long-term debts		managerial accountancy approach (S)
	machine bookkeeping	**	
	machine language	**	
	magnetic ink	**	
	magnetic tape	**	
	management		managerial accountancy approach (S)
	margin		managerial accountancy approach (S)
*	markup		
	master card	**	
	mechanical data processing	**	
	medium	**	
	merchandise turnover		managerial accountancy approach (S)

TABLE XI (Continued)

1958	1963	Rationale	Assumed Rationale
*	mortgage		
*	multiple column journal		
	needle	**	
	needle sort cards	**	
net profit	net income		update terminology (A)
	notching	**	
*	operating costs		
	output	**	
	overhead		managerial accountancy approach (S)
	pegboard accounting	**	
	permanent assets		managerial accountancy approach (S)
*	prepaid expenses		
	pricing policy		managerial accountancy approach (S)
	processing unit	**	
	product card	**	
	program	**	
	punched cards	**	
	punched paper tape	**	
	punching positions	**	

TABLE XI (Continued)

1958	1963	Rationale	Assumed Rationale
*	received on account		
*	refund		
	return on investment		managerial accountancy approach (S)
	safeguarding funds		managerial accountancy approach (S)
	selecting	**	
	sequencing	**	
	simulation management technique	**	
	simultaneous recording	**	
*	single entry bookkeeping		
single entry system	*		
	sorting	**	
	standardized records	**	
	storage unit	**	
	storage symbol	**	
	summary card	**	
	tape-punching unit	**	

TABLE XI (Continued)

1958	1963	Rationale	Assumed Rationale
	tape-to-card converter	**	
	temporary accounts		managerial accountancy approach (S)
	trade association		managerial accountancy approach (S)
	transaction card	**	
	unit record	**	
	verifier	**	
	write-once accounting	**	

*These terms were used in the content of both editions of the textbook but were not found in the end-of-the-chapter vocabulary listing for this edition.

**These terms denote automation and data processing terminology.

S = Social Factors T = Technological Developments A = Accountancy Practices

TABLE XII

CHANGE IN TERMINOLOGY 1963-1968
AND RATIONALE

1963	1968	Rationale	Assumed Rationale
abstract of accounts payable	schedule of accounts payable		update terminology (A)
abstract of accounts receivable	schedule of accounts receivable		update terminology (A)
*	account form of balance sheet		
*	account number		
bookkeeping equation	accounting equation		change to "accounting" (A)
*	accounting period		
accounts payable ledger	accounts payable file		automation and DP (T)
*	accounts receivable account		
	accounts receivable file		automation and DP (T)
accounts receivable register			discontinued (A)
accrual basis	*		

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
allowance for depreciation	accumulated depreciation account		update terminology (A)
	addition-to-a-form symbol		automation and DP (T)
*	adjustments		
	ADP		automation and DP (T)
	analog computer		automation and DP (T)
	arithmetic/logic unit		automation and DP (T)
audit	*		
	automatic digital computer		automation and DP (T)
	back order		new term in processing credit sales (A)
balance-forward card	*		
*	balance sheet account		
balancing and ruling accounts	*		
*	balancing accounts		
*	bank statement		
*	basic source document		
*	beginning inventory		
	bit		automation and DP (T)

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
*	biweekly		
*	blank endorsement		
	block diagram		automation and DP (T)
*	book of original entry		
	branching		automation and DP (T)
	business data processing		automation and DP (T)
*	by-product tape		
*	calculators		
*	calendar year		
*	canceled check		
*	chart of accounts		
*	checkbook		
*	check protector		
chronological	*		
	classifying		automation and DP (T)
	communication		automation and DP (T)
	COBOL		automation and DP (T)
*	combined journal entry		
	computer		automation and DP (T)
	computer address		automation and DP (T)
	computing		automation and DP (T)

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
console	*		
	continuous forms		automation and DP (T)
*	control unit		
	constant data		automation and DP (T)
*	costs		
*	cost of goods available for sale		
*	CP		
credit manager	*		
*	credit memorandum		
*	credit period		
credit rating	*		
creditor's ledger	creditor's folder		change due to ADP (T)
cropped corners	*		
*	currency requisition		
	customer's folder		automation and DP (T)
daily cash report	*		
data processing	*		
data transceiving	*		
*	debiting the account		

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
	debugging		automation and DP (T)
*	debtor		
decisions	*		
	decision symbol		automation and DP (T)
deferred expenses	*		
*	deferred income		
delinquent account	*		
denomination	*		
*	deposit in transit		
*	depreciation expense account		
*	detail printing		
*	digital computer		
*	direct posting		
discount	*		
*	dishonored check		
*	dishonored note		
*	disposal value		
capital	*		
*	capital account		
*	carbon spot		
*	card punch		
*	cash		

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
cash basis	*		
cash control	*		
*	cash discount		
*	cash over		
cash payments	*		
*	cash payments journal		
*	cash proof		
cash receipts	*		
cash receipts register	*		
*	cash register		
*	cash short		
*	cash short and over		
central processing unit	*		
*	central processor		
	certified public account-ant		"accounting" terminology (A)
change report	*		
*	change sheet		
character-sensing	*		
dividends	*		

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
drawee	*		
earnings record	*		
EDP	*		
*	edge-punched card		
	edge-notched cards		automation and DP (T)
electronic computer	*		
*	employee earnings record		
*	ending inventory		
endorser	*		
*	equipment		
*	expense		
*	explanation		
expense accounts	*		
*	extension		
*	Federal Income Tax With-holding		
*	financial statement		
*	fiscal year		
*	fixed liabilities		
	forms register		automation and DP (T)
	FORTRAN		automation and DP (T)

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
freight in	*		
freight out	*		
*	full endorsement		
funds	*		
	FUTA Tax		Changes in federal government terminology (S)
	GIGO		automation and DP (T)
grouping	*		
group printing	*		
	hard copy		automation and DP (T)
	header card		automation and DP (T)
	holder		automation and DP (T)
IBM card	*		
	imprinting device		automation and DP (T)
income accounts	*		
*	income		
*	income and expense summary		
income and expense summary account	*		
*	input device		
*	input media		

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
insurance premium	*		
insurance register			discontinued (A)
integrated data processing	*		
interest	*		
*	interest-bearing note		
*	interest rate		
*	interest receivable account		
	interpreter		automation and DP (T)
*	inventory cards		
*	issue date		
	item card		automation and DP (T)
*	journalizing		
	journalless bookkeeping		automation and DP (T)
*	ledger account		
*	long-term liabilities		
	looping		automation and DP (T)
*	maker		
magnetic ink	*		
management	*		
	manipulation		automation and DP (T)

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
	manual data processing		automation and DP (T)
margin	*		
	mark-sensing		automation and DP (T)
markup	*		
master card	*		
	matching		automation and DP (T)
*	maturity value		
*	Medicare		
medium	*		
*	merchandise		
merchandise turnover	*		
*	merchandising business		
	merging		automation and DP (T)
	MICR		automation and DP (T)
mortgage	*		
*	mortgage payable		
multiple column journal	*		
needle	*		
needle sort cards	*		
negotiable instrument	*		
*	net income from operations		
*	net other income		

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
net worth	*		
	nondescriptive statement		automation and DP (T)
notching			discontinued (A)
	object program		automation and DP (T)
	off-line		automation and DP (T)
	on-line		automation and DP (T)
	one-write system		automation and DP (T)
operating costs	*		
	operations symbol		automation and DP (T)
	optical scanning		automation and DP (T)
	origination		automation and DP (T)
*	other expense		
*	other income		
*	out of balance		
*	output media		
*	output device		
overhead	*		
overtime	*		
*	overtime pay		
*	owner's equity		
*	packing slip		

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
*	payroll deductions		
payroll period	*		
*	payroll register		
*	pegboard		
pegboard accounting	*		
	periodic billing		automation and DP (T)
*	periodic inventory		
permanent assets	fixed assets		modern terminology (A)
*	perpetual inventory		
*	petty cash book		
	physical inventory		automation and DP (T)
posting reference	*		
*	posting reference number		
preferred stock			discontinued, capital stock is used to show owner's equity (A)
pricing policy			discontinued (A)
	procedure		automation and DP (T)
*	proceeds		
processing unit	*		
product card	*		
	programmer		automation and DP (T)

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
proprietorship	*		
*	protest fee		
	punched-card data process-		
*	ing		
punching position	*		
*	purchase allowance		
*	purchase order		
*	purchases return		
*	purchases		
	purchases invoice file		automation and DP (T)
purchases journal	*		
purchases return and allowances	*		
quantity purchases	*		
	recording		automation and DP (T)
refund	*		
	report form of balance		
*	sheet		
	reproducer		automation and DP (T)
	reproducing		automation and DP (T)
	request for quotation		new term (A)
*	restrictive endorsement		

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
*	retrieving data		
return on investment	*		
	revenue		new term for income (A)
*	returned item		
reversing entries			discontinued (A)
	rotary file		automation and DP (T)
*	ruling accounts		
safeguarding funds	*		
*	sales invoice		
	sales invoice binder		managerial accountancy approach (S)
	sales order		new term (A)
	sales subsystem		new term (A)
*	sales tax		
*	sales tax payable		
	schedule of cost of goods sold		a new supporting schedule (A)
*	service charge		
shareholder	*		
*	shipping order		
simulation management techniques	*		

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
simultaneous recording	*		
single entry bookkeeping	*		
*	single proprietorship		
	snap-out forms		automation and DP (T)
*	social security card		
social security deductions	*		
*	sorter		
*	source document		
	source program		automation and DP (T)
specie	*		
standardized records			discontinued
*	statement of owner's equity		
	statement symbol		automation and DP (T)
stockholders	*		
*	stop payment order		
storage symbol	*		
	stored program		automation and DP (T)
	storing		automation and DP (T)
*	straight-line method		

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
	strip accounting		automation and DP (T)
	summarizing		automation and DP (T)
summary card			discontinued (A)
sundry columns			discontinued (A)
surplus accounts			discontinued (A)
*	tabulating machine		
	tape density		automation and DP (T)
tape-punching unit	*		
tape-recording unit	*		
time	*		
*	time card		
trade association			discontinued (A)
*	transaction		
transaction card	*		
	transfer entries		automation and DP (T)
transposition	*		
*	transposition of figures		
	unearned income		replaced accrual (A)
	unearned rental income		replaced accrued income (A)
*	uniform record		
	uniform data card		automation and DP (T)

TABLE XII (Continued)

1963	1968	Rationale	Assumed Rationale
	unit-set forms		automation and DP (T)
	unpaid invoice files		replaced tickler file (A)
*	valuation account		
	variable data		automation and DP (T)
*	voided		
	visible record file		automation and DP (T)
*	voucher pay check		
withdrawals	*		
withholding tax	*		
working assets	*		
write-once accounting	*		

*These terms were used in the content of both editions of the textbook but were not found in the end-of-the-chapter vocabulary listing for this edition.

S = Social Factors T = Technological Developments A = Accountancy Practices

TABLE XIII

CHANGE IN TERMINOLOGY 1968-1973
AND RATIONALE

1968	1973	Rationale	Assumed Rationale
	account coding		automation and DP (T)
*	account title		
*	accounting cycle		
accounts payable file	*		
accounts receivable account	*		
accounts receivable file	*		
*	accrued assets		
*	accrued liability		
*	accrued revenue		
addition-to-a-form symbol			discontinued (A)
*	adjusted bank balance		
*	adjusted checkbook balance		
adjusting entries	*		
allowance for bad debts	*		

TABLE XIII (Continued)

1968	1973	Rationale	Assumed Rationale
	allowance for bad debts account		
*	alphanumeric keyboard		automation and DP (T)
analog computer	*		
arithmetic/logic unit	*		
	audit trail		automation and DP (T)
*	automatic typewriter		
automation	*		
back order	*		
bad debts	*		
*	balancing an account		
balancing accounts	*		
bank discount	*		
bank reconciliation	*		
	bank reconciliation statement		
*	bar code		automation and DP (T)
	BASIC		automation and DP (T)
	batch		automation and DP (T)
bit	*		
biweekly	*		

TABLE XIII (Continued)

1968	1973	Rationale	Assumed Rationale
block diagram	block flowchart		flowchart is used instead of diagram (T)
*	buying on credit		
	by-product		automation and DP (T)
by-product tape	*		
	calculating punch		automation and DP (T)
calculators	*		
	calendar quarter		new term (A)
capital account	*		
*	capital stock		
*	card column		
*	cash receipts journal		
cash register	*		
certified public accountant	*		
	channel code		automation and DP (T)
checkbook	*		
*	closing the ledger		
	code field		automation and DP (T)
	code position		automation and DP (T)
*	collator		
*	communicating		

TABLE XIII (Continued)

1968	1973	Rationale	Assumed Rationale
communication	*		
*	contra account		
costs	*		
cost of goods available for sale	*		
CP	*		
*	credit entry		
*	credit side		
*	crediting an account		
creditor's folder	*		
currency	*		
customer's folder	*		
*	cycle billing		
*	data		
*	data processing cycle		
*	debit side		
debugging	*		
	decimal number system		new method of numbering accounts (A)
decision symbol	*		
deferred income	deferred revenue		update terminology (A)
*	deposit ticket		
*	depositor		

TABLE XIII (Continued)

1968	1973	Rationale	Assumed Rationale
depreciation expense account	*		
	descriptive machine		automation and DP (T)
	descriptive statement		automation and DP (T)
	detail card		automation and DP (T)
detail printing	*		
digital computer	*		
dishonored note	*		
	distribution of net income		managerial accountancy approach (S)
	division of responsibility		managerial accountancy approach (S)
double-entry bookkeeping			discontinued (A)
*	double posting		
*	drawer		
edge-notched cards	*		
electronic data processing	*		
*	employee		
*	employee pay statement		
*	employer		

TABLE XIII (Continued)

1968	1973	Rationale	Assumed Rationale
	end printing		automation and DP (T)
*	endorser		
*	equipment		
*	expenditure		
expense	*		
explanation	*		
extension	*		
fixed liabilities	*		
	f.o.b. destination		new term used in computing transportation on merchandise (A)
	f.o.b. shipping point		new term used in computing transportation on merchandise (A)
*	forms		
*	general journal		
*	general ledger		
*	general ledger columns		
*	gross profit		
gross profit on sales	*		
hard copy	*		
holder	*		

TABLE XIII (Continued)

1968	1973	Rationale	Assumed Rationale
*	in balance		
income and expense summary	revenue and expense summary account		update terminology (A)
	information		automation and DP (T)
input	*		
*	input data		
interest-bearing note	*		
interest expense	*		
interest income	*		
interest rate	*		
interest receivable account	*		
inventory cards	*		
*	journal entry		
journalless bookkeeping	journalless accounting		update terminology (A)
ledgerless bookkeeping	ledgerless accounting		update terminology (A)
	listing machine		mechanical data processing (T)
*	loans payable		
looping	*		
	loose forms		automation and DP (T)

TABLE XIII (Continued)

1968	1973	Rationale	Assumed Rationale
	loose-leaf ledger		automation and DP (T)
maker	*		
*	magnetic ink characters		
*	marked-sensed card		
mark-sensing	*		
matching	*		
maturity date	*		
maturity value	*		
	mechanical accounting machine		automation and DP (T)
Medicare	*		
*	medium		
memorandum	*		
*	memorandum entry		
merchandising business	*		
merging	*		
mortgage payable	*		
net income from operations			discontinued (A)
*	net pay		
net sales	*		
*	96 column card		

TABLE XIII (Continued)

1968	1973	Rationale	Assumed Rationale
	nondescriptive machine		automation and DP (T)
	numeric keyboard		automation and DP (T)
	numeric rows		automation and DP (T)
one-write system	*		
*	opening entry		
operating expenses	*		
	optical type font		automation and DP (T)
*	origination of data		
other expense	*		
other income			discontinued
*	output data		
	padded multiple forms		automation and DP (T)
*	partners' equity		
*	payment on account		
*	payroll		
pegboard	*		
periodic inventory	*		
	periodic inventory accounting		
*			
*	petty cash fund		
	PL/1		automation and DP (T)
*	posting by total		
*	posting reference column		

TABLE XIII (Continued)

1968	1973	Rationale	Assumed Rationale
	prenumbered forms		automation and DP (T)
principal	*		
*	procedure		
*	procedure flowchart		
proceeds	*		
*	program flowchart		
programmer	*		
promissory note	*		
protest fee	*		
*	proving petty cash		
punched card data processing	*		
	punched code		automation and DP (T)
*	punched paper tape		
	punched tag		automation and DP (T)
	punching positions		automation and DP (T)
purchases (account)	*		
purchases invoice file	*		
*	purchases journal		
*	received on account		

TABLE XIII (Continued)

1968	1973	Rationale	Assumed Rationale
*	recorded value		
*	remittance slip		
replenish	*		
*	replenishing petty cash		
*	retained earnings		
retrieving data	*		
returned item	*		
	RPGII		automation and DP (T)
ruling accounts	*		
*	ruling an account		
*	sales allowance		
sales invoice binder	*		
sales journal	*		
sales order	*		
*	sales returns		
sales returns and allowances	*		
sales tax payable	*		
*	schedule of accounts receivable by age		
schedule of cost of goods sold	*		

TABLE XIII (Continued)

1968	1973	Rationale	Assumed Rationale
*	shared time		
*	signature card		
*	social security		
social security card	*		
*	special journal		
*	special money columns		
statement of account	*		
statement symbol	*		
*	stockholders' equity		
*	subsystem		
*	symbolic flowchart		
*	system flowchart		
*	temporary accounts		
*	time clock		
*	transposed digits		
transposition of figures	*		
*	two-column journal		
unearned income			discontinued (A)
unearned rental income account			discontinued (A)

TABLE XIII (Continued)

1968	1973	Rationale	Assumed Rationale
uniform record	*		
unit data card	*		
unpaid invoices files	*		
*	verifying		
*	voucher check		
voucher pay check	*		
*	wages		
	zone rows		automation and DP (T)

*These terms were used in the content of both editions of the textbook but were not found in the end-of-the-chapter vocabulary listing for this edition.

S = Social Factors T = Technological Developments A = Accountancy Practices

due to a managerial accounting approach introduced in this edition. Three terms were brought up-to-date to conform with modern business practices. One change was made in the spelling of a term. Sixty-four terms were changed between the 1958 edition and the 1963 edition as a result of technological factors; twenty-four changes were made as a result of social factors; four changes were made as a result of accountancy practices.

Table XII, page 65, reports changes in terminology between the 1963 edition and the 1968 edition. In 1968, the title of this textbook was changed from bookkeeping to "accounting" and resulted in five changes in terminology. Automation and data processing introduced 69 new vocabulary terms. Fourteen terms were added or changed to comply with modern business practices. One change was caused by a change in federal government terminology. Two hundred twelve terms were used in the text of both editions but were found in the vocabulary listing of one edition. Seventy-two terms were changed between the 1963 edition and the 1968 edition as a result of technological developments; twenty-three changed as a result of accountancy practices; three changed as a result of social factors.

Table XIII, page 82, reports the changes in terminology between the 1968 edition and the 1973 edition. One term was discontinued, three were replaced by a modern business term, 27 terms were introduced by automation and data processing, 180 terms were used in both editions but emphasized in the vocabulary listing in only one.

Thirty-two terms were changed between the 1968 edition and the 1973 edition as a result of technological developments; thirteen changed as a result of accountancy practices; one changed as a result of social factors.

IV. SUMMARY

Two secondary school accounting textbooks were selected for this study. A chronology of change in secondary school accountancy instruction was developed for each of the two accountancy textbooks. The chronology included changes in textbook illustrations, instructional materials and vocabulary terms. Frequency and percentage data were reported for each edition, the percentage of change from one edition to the succeeding editions and the percent of change of each edition in relation to the base year. (See Appendix C for an itemized listing of these.)

Figure 1, page 96, summarizes the total number of textbook illustrations, 1947-1973. Book One shows an increase over the base year, 1947 for each period. Book Two shows a decrease in total textbook illustrations in 1957/58 and 1962/63 compared with the 1953 edition. It shows increases in 1967/68 and 1972/73.

Table XIV, page 97, reports the total number of selected "Suggested Instructional Materials," 1947-1973. Figure 2, page 98, summarizes the total number of selected "Suggested Instructional Materials," 1947-1973.

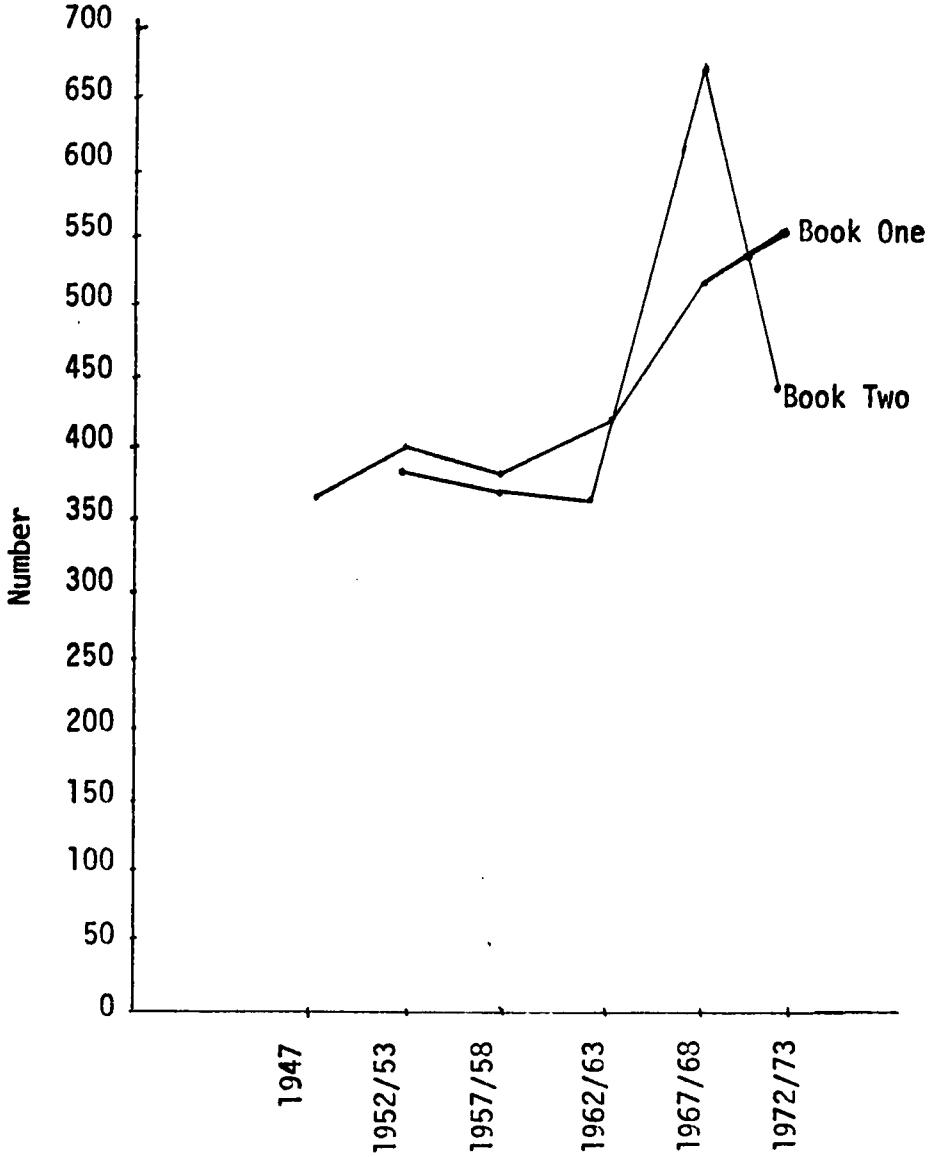


Figure 1. Total Textbook Illustrations, 1947-1973.

TABLE XIV

TOTAL NUMBER SELECTED "SUGGESTED INSTRUCTIONAL MATERIALS," 1947-1973

Instructional Material	1947	1952/5	1957/58	1962/63	1967/68	1972/73
Booklets		*	*	*	*	*
Motion Pictures/Films	*	*	*	*	*	*
Filmstrips	*	*	*	*	*	*
Wall Charts	*	*	*	*	*	*
Glass Slides		*	*	*	*	*
Tape Recordings		*				
Radio and Television		*				
Field Trips		*	*	*	*	*
Overhead Projector and Transparencies		*	*	*	*	*
Income Tax Kit				*	*	*
Social Security Kit				*	*	*
Trans-Vision Inserts						*
Reference Materials	*	*	*			
Community Resources	*	*	*	*	*	*
Working Papers	*	*	*	*	*	*
Study Guides	*	*	*	*	*	*
Practice Sets	*	*	*	*	*	
Dictionary of Accounting Terms						*
Simulation Sets						*
Printed Tests	*	*	*	*	*	*
Copies of Financial Statements from Newspapers			*			
Multimedia						*
Adding Machines			*	*		
Total	9	15	15	15	14	17

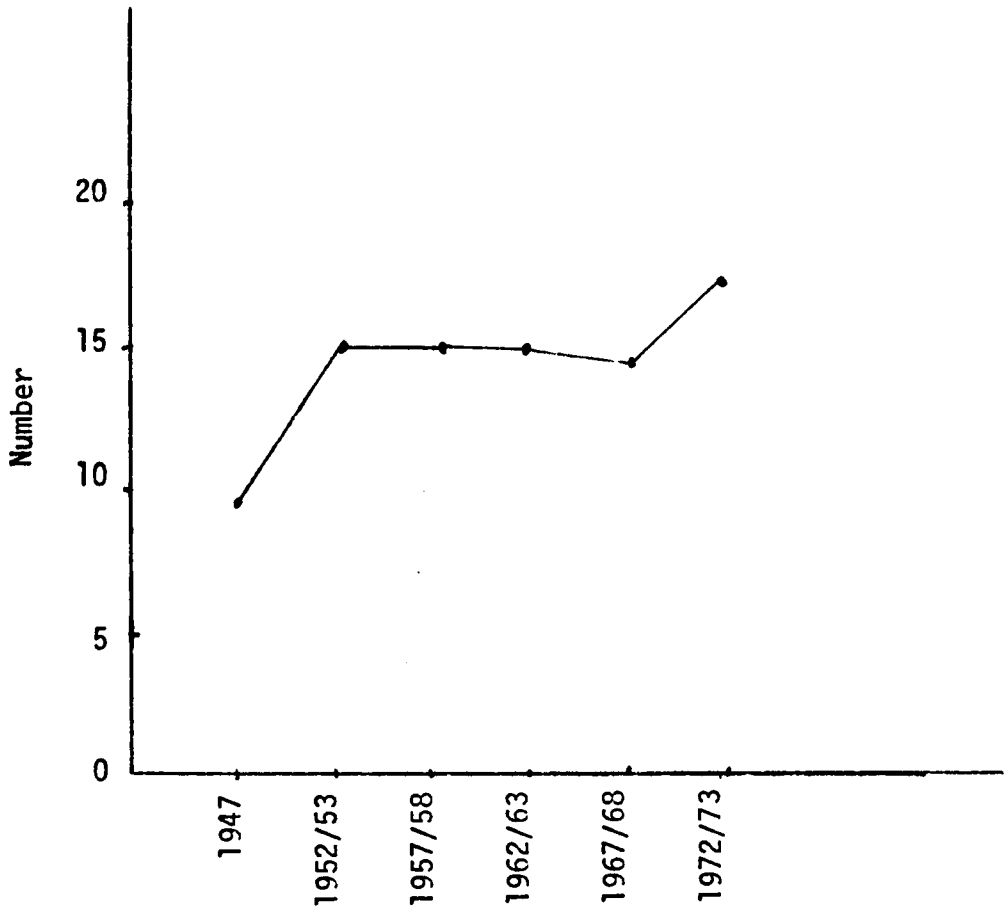


Figure 2. Total Selected "Suggested Instructional Materials," 1947-1973.

Table XV reports a summary of the total number of vocabulary words emphasized in all editions of Book One. There were 189 words emphasized in the 1947 edition of Book One, 195 in the 1952 edition,

TABLE XV

TERMINOLOGY
BOOK ONE: SOUTH-WESTERN PUBLISHING COMPANY
THE PERCENTAGE OF CHANGE

	1947	1952	1957	1962	1967	1972
Total No. Terms	189	195	215	208	252	289
Percentage of Change, Edition		3.0	10.3	-3.3	21.0	14.6
Percentage of Change, Base Yr.		3.0	14.0	10.0	33.3	52.9

215 in the 1957 edition, 208 in the 1962 edition, 252 in the 1967 edition, and 289 in the 1972 edition. The percentages of change for each edition compared with the base year were: 3 percent increase between the 1947 and 1952 editions, 14 percent increase between the 1947 and 1957 editions, 10 percent increase between the 1947 and 1962 editions, a 33.3 percent increase between the 1947 and 1967 editions, and a 52.9 percent increase between the 1947 and 1972 editions.

Table XVI reports a summary of the total number of vocabulary words emphasized in all editions of Book Two. There were 120 words in the 1953 edition, 129 words in the 1958 edition, 226 words in the 1963 edition, 331 words in the 1968 edition and 369 words in the 1973

TABLE XVI

TERMINOLOGY
BOOK TWO: McGRAW-HILL BOOK COMPANY
THE PERCENTAGE OF CHANGE

	1953	1958	1963	1968	1973
Total No. Terms	120	129	226	331	369
Percentage of Change, Edition		7.5	75.0	46.0	11.0
Percentage of Change, Base Yr.		7.5	88.3	175.8	207.5

edition. The percentage of change for each edition compared with the base year were: 7.5 percent increase between the 1953 and 1958 editions, an 88.3 percent increase between the 1953 and 1963 editions, a 175.8 percent increase between the 1953 and 1968 editions, and a 207.5 percent increase between the 1953 and 1973 editions.

Figure 3, page 101, graphically illustrates the total vocabulary terms, 1947-1973. There were 189 total vocabulary words emphasized in 1957, 258 in 1952/53, 281 in 1957/58, 360 in 1962/63, 468 in 1967/68, and 530 in 1972/73.

This concludes the presentation of the analysis of the data. Chapter V will present the findings of the research, conclusions

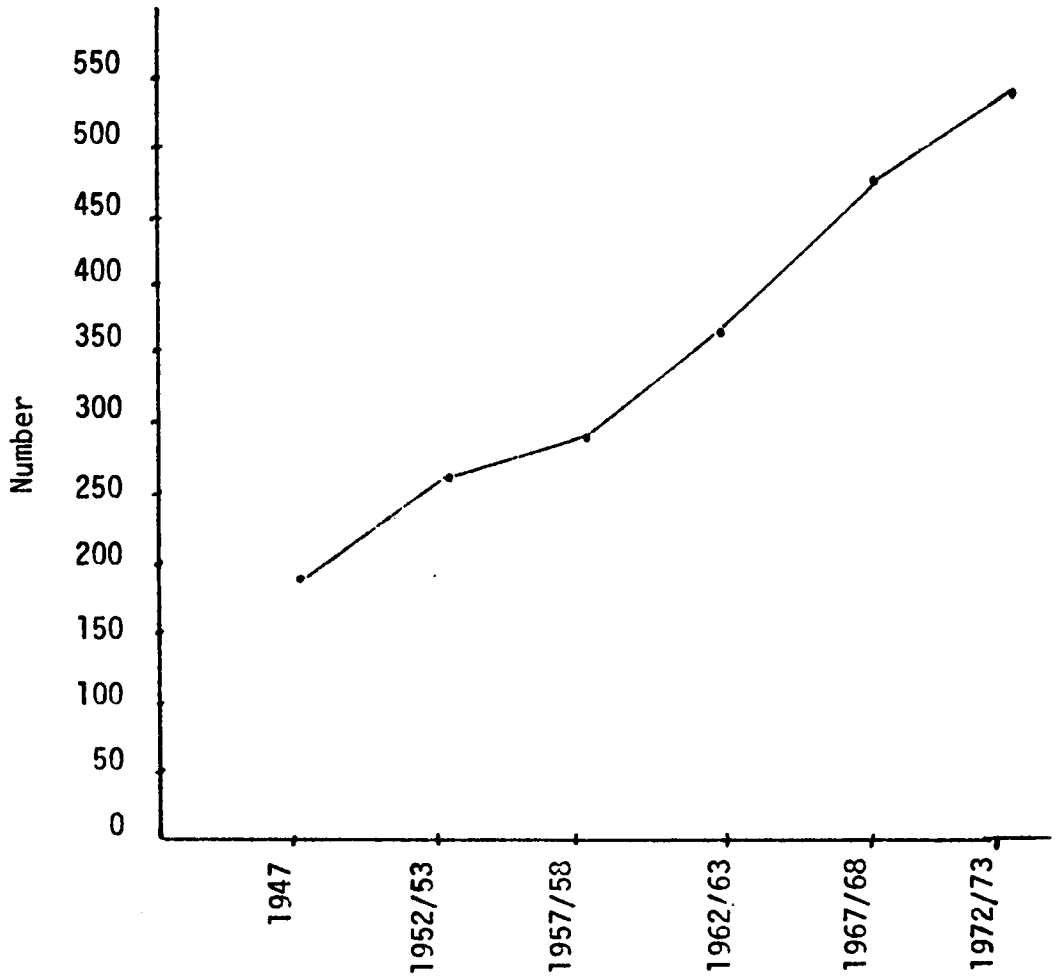


Figure 3. Total Vocabulary Terms, 1947-1973.

drawn, and recommendations made. The appendixes contain an alphabetic list of all terms used in each textbook and a combined listing for both textbooks; also, a chronology of change in secondary school accountancy instruction may be found in the appendixes.

CHAPTER V

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of the study was to identify social factors, technological developments, or accountancy practices affecting secondary school accountancy instruction, 1947-1973.

The questions to be answered were:

1. What was the frequency of use of accountancy illustrations in secondary school accounting textbooks?
2. What was the total number and percent of change in selected instructional materials in secondary school accounting textbooks?
3. What accountancy vocabulary was used in secondary school classes from 1947 to 1973?
4. What social factors, technological developments, or accountancy practices affected secondary school accountancy instruction between 1947 and 1973?

I. FINDINGS

Textbook Illustrations

Five types of textbook illustrations were found to exist: (a) accounting forms; (b) source documents; (c) real life; (d) "T" accounts; and (e) flow charts.

Accounting forms, source documents, real life illustrations, and "T" accounts were used in the texts in every edition between 1947 and 1973. Flow charts were first used in 1953. There were 7 flow charts illustrated in the 1953 edition of the textbook, 6 illustrated in the 1958 edition and there were 10 flow charts illustrated in the 1963 edition of the textbook. In 1967 there were 20 flow charts illustrated and in 1968 there were 60 flow charts illustrated.

Instructional Materials

There was a total of 23 suggested instructional materials selected for analysis in this study. In 1947, the base year, there were 9 of the selected instructional materials suggested for use. In 1952/53, 1957/58, and 1962/63 there were 15 of these selected instructional materials suggested for use; in 1967/68 there were 14 suggested instructional materials and 17 suggested in 1972/73.

The percentage of change in the total number of selected suggested instructional materials were as follows: an increase of 66.7 percent during 1952/53, 1957/58, and 1962/63 over the base year (1947); in 1967/68 there was a 55.6 percent increase; and during 1972/73 there was an increase of 77.8 percent in the total number of selected suggested instructional materials over the base year.

Vocabulary

A total of 827 vocabulary terms were listed in the end-of-the-chapter vocabulary listing for each textbook. Appendix D contains a combined listing of all vocabulary terms emphasized in the textbooks reviewed in this study.

Types of Changes

Social Factors. During the period 1947-1973 there were 29 changes made in vocabulary as a result of social factors. Following is a list of the changes, the date of the change, and the rationale for the change.

Date: 1952/53

Rationale: combined with social security deposits

Vocabulary words: annuities
pensions

Date: 1957/58

Rationale: federal legislation

Vocabulary words: FICA tax

Date: 1962/63

Rationale: managerial accountancy approach

Vocabulary words:

aging accounts receivable
audit
branches
break-even point
budget
cash control
credit manager
delinquent account
funds
investment capital
labor costs
long-term debts
management
margin
markup
merchandise turnover
overhead

Date: 1967/68

Rationale: managerial accountancy approach

Vocabulary words:

permanent assets	safeguarding funds
pricing policy	temporary accounts
return on investment	trade associations
sales invoice	

Date: 1967/68

Rationale: federal government legislation

Vocabulary words:

Medicare	FUTA tax

Technological Developments. As a result of developments in technology, 204 changes were made in vocabulary usage between 1947 and 1973.

Date: 1962/63

Rationale: automation and data processing

Vocabulary words:

automated equipment	card fields
automation	card-to-tape converter
access time	central processing unit
accounting machine	channels
accounts receivable register	character-sensing
automatic digital computer	common language
balance forward card	computyper
binary number system	console

cropped corners
data processing
data transceiving
decisions
EDP/electronic data processing
Flexowriter
flow chart
grouping
group printing
IDP/integrated data processing
input
key-punch machine
ledgerless bookkeeping
machine bookkeeping
machine language
magnetic ink
magnetic tape
master card
mechanical data processing
medium
needle
needle sort cards
notching
output
pegboard accounting
processing unit
product card
program
punched cards
punched paper tape
punching positions
selecting
sequencing
simulation management technique
simultaneous recording
sorting
standardized records
storage unit
storage symbol
summary card
tape-punching unit
tape-to-card converter
transaction card
unit record
verifier
write-once accounting

Date: 1962/63

Rationale: innovations in modern banking

Vocabulary words:

magnetic ink characters

magnetic ink character reader

magnetic ink character recognition

Date: 1967/68

Rationale: automation and data processing

Vocabulary words:

autographic register
automatic data processing
calculator
carbon pack
card-punch machine
charge-a-plate
collator
cycle billing
data
electronic computer system
source document
output
output media
programmer
sorter
storage
tabulating
tabulator
accounts payable file
accounts receivable file
addition-to-a-form symbol
ADP/automated data processing
analog computer
arithmetic logic unit
automatic digital computer
bit
block diagram
branching

business data processing
classifying
COBOL
communication
compiler program
computer
computer address
computing
continuous forms
constant data
creditor's folder
customer's folder
debugging
decision symbol
edge-notched cards
forms register
FORTRAN
GIGO
hard copy
header card
holder
imprinting device
interpreter
item card
journalless bookkeeping
looping
manipulation
manual data processing
mark-sensing
matching
merging
MICR
nondescriptive statement
object programming
off-line
on-line
one-write system
operations symbol
optical scanning
origination
periodic billing
physical inventory
procedure
purchases invoice file
recording
reproducer
reproducing
rotary file
snap-out forms
source program

statement symbol
stored program
storing
strip accounting
summarizing
tape density
transfer entries
uniform data card
unit set forms
variable data
visible record file

Date: 1972/73

Rationale: automation and data processing

Vocabulary words:

automatic data processing cycle
auxiliary storage
card punch
card reader
data communications
data processing cycle
data processing system
detailed audit tape
internal storage
journalless accounting
ledgerless accounting
magnetic tape drive
paper tape reader
printer
printout
symbolic flow chart
unit record equipment
account coding
alphanumeric keyboard
audit trail
bar code
BASIC
batch
block flowchart
by product
calculating punch
channel code
code field
code position
descriptive machine
descriptive statement

detail card
end printing
information
listing machine
loose forms
loose-leaf ledger
mechanical accounting machine
nondescriptive machine
numeric keyboard
numeric rows
optical type font
padded multiple forms
PL/2
prenumbered forms
punched codes
punched tag
punching positions
RPG II
zone rows

Accountancy Practices. In an effort to conform with actual accounting practices, 106 changes in vocabulary usage were made during the period between 1947 and 1973.

Date: 1952/53

Rationale: AAA recommendation

Vocabulary words:

schedule of accounts payable
schedule of accounts receivable

Date: 1952/53

Rationale: preferred by accountants

Vocabulary words:

allowance for bad debts
allowance for depreciation

Date: 1952/53

Rationale: to conform with modern business practices

Vocabulary words:

adjusted trial balance

bad debts expense

deferred charges

fiscal period

membership record book

miscellaneous day-to-day entries

property taxes

recapitulation form

goodwill

Date: 1957/58

Rationale: to conform with modern business practices

Vocabulary words:

cash surrender value

gain on fixed assets

combined journal

dishonored note

earned surplus

endorsement

Date: 1962/63

Rationale: to conform with modern business practices

Vocabulary words:

long-term liabilities

miscellaneous entries

notes payable register

notes receivable register

special journal

special column

cash items

principal of a note

cash journal

cashbook

blank endorsement

combination journal

income and expense summary account

income statement

membership record book

net cost of merchandise purchased

net income

net income from operations

net decrease in capital

perpetual inventory

receipt book

restrictive endorsement

sales tax

savings account

dishonored check

endorsement in full

equipment record card

equities

income and expense statement

"T" account

treasurer

treasurer's report

average inventory

Date: 1967/68

Rationale: to conform with modern business practices

Vocabulary words:

accountant

aging accounts receivable

capital statement

collection docket

direct write-off of uncollectible accounts

estimated scrap value

f.o.b. destination

f.o.b. shipping point

livestock purchased cost

livestock purchased sales

manual data processing

merchandise received for produce

patient's record card

schedule of farm income and expenses

accounting equation

accounts receivable register

accumulated depreciation

back order

certified public accountant

insurance register

fixed assets

preferred stock

pricing policy

request for quotation

revenue

reversing entries

sales order

schedule of cost of goods sold

standardized records

summary card

sundry column

surplus accounts

trade association

unearned income

Date: 1972/73

Rationale: to conform with modern business practices

Vocabulary words:

accounting

accounting clerk

accounting cycle

credit card

double-entry accounting

financial activities

sales invoice

sales slip

single entry accounting

temporary capital account

unpaid invoice file

journalless accounting

deferred revenue and expense summary

ledgerless accounting

net income from operations

other income

unearned income

unearned rental income

II. CONCLUSIONS

As a result of this study, the following conclusions are presented:

1. Changes were made in secondary school accountancy instruction, 1947-1973, due to social factors, technological developments, or accountancy practices.

   a. Changes due to social factors include those made by federal government regulations and those caused by the managerial accountancy approach.

   b. Changes due to technological developments include those brought about by automation and data processing and those environmental changes in business practices brought about by automation which have had an impact on current business practices include changes in job titles, duties and shifting emphasis from the mechanics of the position to the concepts of accounting.

   c. Accountancy practices which brought about changes in secondary school accountancy instruction, 1947-1973, include: the use of ready-made accounting systems and forms; the use of three-line headings on all accounting forms; the petty cash book being discontinued because of the modern trend to summarize the petty cash voucher directly into the combination journal; notes receivable and notes

payable registers were discontinued because of a lack of need for them by small businesses; the use of a separate schedule of cost of goods sold; the use of a separate statement of owner's equity; the use of a simple and complete way to prepare the work sheet; the use of a new technique for adjusting merchandise inventory; the use of journalless and ledgerless systems of accounting; and the use of the word "accounting" in place of "bookkeeping."

2. Flow charts were used to a limited extent in 1953. The use of flow charts increased considerably in 1967 and 1968.

3. Even though automation and data processing have caused the major change in secondary school accountancy instruction, it may be concluded, based on the findings in this study, that a knowledge of basic accounting principles, concepts, and procedures is necessary in order to interpret the meaning of business records produced by automated equipment.

III. RECOMMENDATIONS

The following recommendations are offered:

1. It is recommended that a study be made to identify the concepts and trends which have affected secondary school accountancy instruction due to social factors, technological developments or accountancy practices. Suggested trends for investigation include:

(a) programmed instruction; (b) modular scheduling; (c) individualized instruction; (d) team teaching; (e) television; (f) video tape lectures; and (g) a continuing use of bookkeeping machines.

2. It is recommended that an investigation of teacher preparation programs be made to identify the effects of changes in secondary school accountancy instruction due to social factors, technological developments, or accountancy practices on these programs.

3. It is recommended that a study be made to assess the relationship between the increased post secondary enrollments as opposed to the decreased high school enrollment due to significant changes in accounting.

BIBLIOGRAPHY

BIBLIOGRAPHY

BOOKS

Accounting Terminology Bulletins (1-4) Prepared by Committee on Terminology, American Institute of Accountants, 270 Madison Ave., New York, N. Y., 1953.

Boynton, Lewis D., Paul A. Carlson, Hamden L. Forkner, and Robert M. Swanson. Basic Bookkeeping and Accounting. Adult and Continuing Education Series (Cincinnati: South-Western Publishing Company, 1968), pp. v-vi.

Boynton, Lewis D., Paul A. Carlson, Hamden L. Forkner, and Robert M. Swanson. 20th Century Bookkeeping and Accounting, 23rd Ed., (Cincinnati: South-Western Publishing Company, 1967).

Boynton, Lewis D., Robert M. Swanson, Paul A. Carlson and Hamden L. Forkner. Century 21 Accounting (Cincinnati: South-Western Publishing Company, 1972).

Brown, Richard (ed.). A History of Accounting and Accountants. (London: Frank Cass and Company Limited, 1968).

Carlson, Paul A. Bookkeeping Instruction in the Twentieth Century and the Evolution of 20th Century Bookkeeping and Accounting, Monograph 118 (Cincinnati, Ohio: South-Western Publishing Company, 1967), pp. 1 and 4.

Carlson, Paul A., Hamden L. Forkner, and Alva Leroy Prickett. 20th Century Bookkeeping and Accounting, 19th Ed., (Cincinnati: South-Western Publishing Company, 1947).

Carlson, Paul A., Hamden L. Forkner, and Alva Leroy Prickett. 20th Century Bookkeeping and Accounting, 20th Ed., (Cincinnati: South-Western Publishing Company, 1952).

Carlson, Paul A. Hamden L. Forkner, and Lewis D. Boynton. 20th Century Bookkeeping and Accounting, 21st Ed., (Cincinnati: South-Western Publishing Company, 1957).

Carlson, Paul A., Hamden L. Forkner, and Lewis D. Boynton. 20th Century Bookkeeping and Accounting, 22nd. Ed., (Cincinnati: South-Western Publishing Company, 1962).

Cashin, James A. Careers and Opportunities in Accounting (New York: E. P. Dutton and Co., Inc., 1965).

Chatfield, Michael. A History of Accounting Thought, (Homewood, Ill., The Dryden Press, 1974).

Dictionary of Accounting Terminology (Cincinnati: South-Western Publishing Co., 1972).

Edwards, James Don and Roland F. Salmonson. Contributions of Four Accounting Pioneers. (East Lansing, Michigan: Michigan State University, MSU Business Studies, 1961).

Freeman, M. Herbert, J. Marshall Hanna, and Golbert Kahn. Accounting 10/12 (New York: McGraw-Hill Book Co., 1973).

Freeman, M. Herbert, J. Marshall Hanna, Gilbert Kahn, and David H. Weaver. Accounting 10/12, 2nd Ed., (New York: McGraw-Hill Book Company, 1973).

Freeman, M. Herbert, J. Marshall Hanna, and Gilbert Kahn. Bookkeeping Simplified (New York: McGraw-Hill Book Co., 1953).

Freeman, M. Herbert, J. Marshall Hanna, and Gilbert Kahn. Bookkeeping and Accounting Simplified (New York: McGraw-Hill Book Co., 1958).

Freeman, M. Herbert, J. Marshall Hanna, and Gilbert Kahn. Bookkeeping and Accounting Simplified (New York: McGraw-Hill Book Co., 1963).

Heckert, J. Brooks and Harry C. Kerrigan. Accounting Systems Design and Installation, 3rd Ed. (New York: The Roland Press Company, 1967).

Hill, Thomas M. and Myron J. Gordon. Accounting, A Management Approach (Homewood, Ill.: Richard D. Irwin, Inc. 1957).

Lasser, J. K. (Ed., Institute) (Lee Gray, Bernard Greisman and T. R. Lasser) (Princeton, New Jersey: D. Van Nostrand Co., Inc., 1964).

Littleton, A. C. and B. S. Yamey. Studies in the History of Accounting Homewood, Ill.: Richard D. Irwin, Inc., 1956).

Mesthene, Emmanuel G. Technological Change, Its Impact on Man and Society (New York: New American Library, 1970).

Munroe, Walter Scott. Development of Arithmetic as a High School Subject, Dept. of the Interior, Bureau of Education, Bulletin No. 10 (1917), p. 22 as reported in C. A. Nolan, Carlos K. Hayden, and Dean R. Malsbary, Principles and Problems of Business Education, 3rd Ed., (Cincinnati: South-Western Publishing Company, 1967).

Nolan, C. A., Carlos K. Hayden, and Dean R. Malsbary. Principles and Problems of Business Education, 3rd Ed., (Cincinnati: South-Western Publishing Company, 1967).

Peragalla, Edward. Origin and Evolution of Double Entry Bookkeeping, A study of Italian Practice from the Fourteenth Century (New York: American Institute Publishing Co., 1938).

Percy, Alton L. The Social Values of Bookkeeping in the High School (New York: American Book Company).

Scott, D. R. The Cultural Significance of Accounts (Columbia, Missouri: Lucas Brothers Publishers).

Weaver, David H. Practical Tips for Teaching High School Accounting (Highstown, N. J.: Gregg Division, McGraw-Hill Book Company).

The New Merriam-Webster Pocket Dictionary (New York: Pocket Book editions of Simon and Schuster, Inc., 1970).

PERIODICALS

Bright, R. Louis. (Associate Commissioner for Research, U. S. Office of Education). "The Place of Technology in Educational Change," The Educational Technology Review, Ser. #1.

Carey, John L. "Editorial," The Journal of Accountancy, Vol. 93, No. 4 (April, 1952).

Gust, Dale D. "Using Flow-Charting Concepts in Bookkeeping Instruction," Business Education Forum, Vol. 25, nO. 2, Nov., 1970.

Hagerman, Robert L., Thomas F. Keller, and Russell J. Petersen. "Accounting Research and Accounting Principles," The Journal of Accountancy, 135 (March, 1973).

Linowes, David F. "The Accounting Profession and Social Progress," The Journal of Accountancy, 136 (July, 1973).

Skadden, Donald H. "Accounting Principles: Where are They Leading?" University of Michigan Business Review, Vol. XXVI, No. 5 (September, 1974).

Solomon, Stanley H. "The 1972 Research-Award Study," The Delta Pi Epsilon Journal, Vol. XVI, No. 3 (May, 1974).

Wehr, P. N. Jr. "Ways to Control, Establish, or Eliminate Paperwork in Modern Business Procedure," The Journal of Accountancy, Vol. 94, No. 1 (July, 1952).

APPENDIXES

APPENDIX A

BOOK ONE: SOUTH-WESTERN PUBLISHING COMPANY

Term	1947	1952	1957	1962	1967	1972
A.B.A. numbers	*	*	*	*	*	*
abstract of accounts payable	*					
abstract of accounts receivable	*					
account	*	*	*	*	*	*
account balance	*	*	*	*	*	*
account form of balance sheet	*	*	*	*		
account in balance	*	*				
account number				*	*	*
account title	*	*	*	*	*	*
accountant					*	*
accounting						*
accounting clerk						*
accounting cycle						*
accounting equation						*
accounting period	*	*	*			
accounting records						*
accounts payable account	*	*	*			
accounts payable ledger	*	*	*	*	*	*
accounts receivable			*	*		
accounts receivable account	*	*	*			
accounts receivable ledger	*	*	*	*	*	*
accrual basis	*	*	*	*	*	*
accrued expenses	*	*	*	*	*	*
accrued income	*	*	*	*	*	*
accrued interest expense					*	*
accrued interest income					*	*
accrued salary expense						*
adjusted trial balance	*					
adjusting entries	*	*	*	*	*	*
adjusting entry				*		
adjustments			*	*	*	*
aging accounts receivable					*	*
allowance for bad debt		*	*	*		
allowance for depreciation		*	*	*		
analysis paper	*	*	*	*	*	*

Term	1947	1952	1957	1962	1967	1972
annuities	*					
appointment book	*	*	*	*		
articles of copartnership	*	*	*	*	*	
articles of incorporation						*
assets	*	*	*	*	*	*
autographic register					*	*
automated data processing					*	*
automated data processing cycle						*
automated data processing system						*
automated equipment				*		
automation				*	*	*
authorized capital stock	*	*	*	*	*	*
auxiliary storage						*
bad debts	*	*	*	*	*	*
bad debts expense		*	*	*		*
balance-column ledger ruling		*	*	*		
balance sheet	*	*	*	*	*	*
balancing an account	*	*	*	*	*	*
bank balance	*	*	*	*	*	*
bank discount	*	*	*	*	*	*
bank passbook	*	*	*	*		
bank service charge			*	*	*	*
bank statement			*	*	*	*
binary number system					*	
blank endorsement				*	*	*
block diagram						*
board of directors	*	*	*	*	*	*
book of accounts receivable						*
book of original entry						*
book of secondary entry						*
book value	*	*	*	*	*	
bookkeeper			*		*	
bookkeeping					*	
bookkeeping cycle					*	
bookkeeping equation					*	
bookkeeping machine					*	
books of original entry		*	*			
book value of a fixed asset						*
budget	*	*	*	*		
business transaction	*	*	*	*	*	*

Term	1947	1952	1957	1962	1967	1972
calculator					*	*
canceled checks	*	*	*	*	*	*
capital						*
capital statement					*	*
capital stock	*	*	*	*	*	*
carbon-pack					*	
card punch						*
card punch machine					*	
card reader						*
case docket	*	*	*	*		
cash			*			
cash basis	*	*	*	*	*	*
cash discount	*	*	*	*	*	*
cash items			*			
cash journal				*	*	*
cash method of handling purchases			*			
cash over	*	*	*	*	*	*
cash payments journal	*	*	*	*	*	*
cash payments transaction				*	*	
cash proof and balance slip						*
cash receipts journal	*	*	*	*	*	*
cash receipts transaction					*	
cash register	*	*	*	*	*	*
cash sale			*	*	*	
cash short	*	*	*	*	*	*
cash surrender value			*	*		
cash transaction	*	*	*			
cashbook			*			
central processing unit						*
certificate of incorporation	*	*	*	*	*	
charge-a-plate					*	
charge customer	*	*	*	*	*	*
charge sale	*	*				
chart of accounts	*	*	*	*	*	*
charter				*	*	*
check	*	*	*	*	*	*
checking account				*	*	*
closed account	*	*	*	*	*	*
closing entries	*	*	*			
closing entry	*	*	*	*	*	*

Term	1947	1952	1957	1962	1967	1972
closing the ledger	*	*	*	*	*	*
collator					*	*
collection docket	*	*	*	*		
columnar cash payments journal	*	*	*			
columnar cash receipts journal	*	*	*			
columnar general journal	*	*	*			
columnar journal			*			
combination journal				*	*	*
combined cash journal	*	*				
combined entry	*	*	*	*	*	*
combined journal			*			
common stock				*	*	*
computer						*
controlling account	*	*	*	*	*	*
cooperative	*	*	*	*	*	*
corporation	*	*	*	*	*	*
correcting entries	*	*	*	*	*	*
cost of merchandise sold					*	*
credit amount column				*		
credit balance	*	*	*	*	*	*
credit card						*
credit column			*		*	
credit memorandum	*	*	*	*	*	*
credit or credit entry						*
credit sale						*
credit side			*	*	*	*
credited					*	
creditor	*	*	*	*	*	*
credits	*	*				
current assets	*	*	*	*	*	*
current liabilities	*	*	*	*	*	*
customers					*	*
cycle billing					*	*
data					*	*
data communications						*
data processing					*	*
data processing cycle						*
data processing system						*
date of a note					*	*
debit amount column				*		

Term	1947	1952	1957	1962	1967	1972
debit balance	*	*	*	*	*	*
debit column		*		*		
debit or debit entry						*
debit memorandum						*
debit side			*	*	*	*
debited					*	
debits	*	*				
declared a dividend					*	
declaring a dividend						*
deferred charges	*					
deficit			*	*	*	*
deposit ticket	*	*	*	*		
deposit slip					*	*
depositor				*	*	*
depreciation	*	*	*	*	*	*
detailed audit strip	*	*	*	*	*	
detailed audit tape						*
direct write-off of uncollectible accounts					*	*
discount on purchases	*	*	*	*		
discount on sales	*	*	*	*		
discounted note						*
dishonored	*	*				
dishonored check				*	*	*
dishonored note			*	*	*	*
distribution of net income statement						*
divided-column journal	*	*	*			
dividend	*	*	*	*	*	*
dividend on capital stock					*	*
division of the ledger		*				
double entry accounting						*
double entry bookkeeping	*	*	*	*	*	
double page cashbook	*	*				
drawee					*	*
drawer			*	*	*	*
drawing account			*		*	*
earned surplus			*			
electronic computer					*	
electronic computer system					*	
electronic data processing						*
employee's earning record					*	*

Term	1947	1952	1957	1962	1967	1972
endorsement			*	*	*	*
endorsement in full				*	*	*
endorsing			*			
entry				*	*	*
estimated salvage value						*
estimated scrap value					*	
equipment	*	*	*	*	*	*
equipment record card	*	*	*			
equities				*	*	*
exemption				*	*	*
expense	*	*	*	*	*	*
expense accounts	*	*				
federal unemployment tax	*	*	*	*		
FICA tax			*	*	*	*
financial activities						*
fiscal period		*	*	*	*	*
fiscal year						*
fixed asset record					*	*
fixed assets	*	*	*	*	*	*
fixed liabilities	*	*	*	*		
flow chart					*	*
f.o.b. destination					*	*
f.o.b. shipping point					*	*
footing	*	*	*	*	*	*
FUTA tax					*	
gain on fixed assets			*	*	*	*
general journal	*	*	*	*	*	*
general ledger		*	*	*	*	*
goodwill	*					
grand total	*	*	*			
gross profit on	*	*	*	*	*	*
immediate record			*	*		
in balance	*	*				
income	*	*	*	*	*	*
income accounts	*	*				
income and expense statement				*		
income and expense summary account				*		
income statement				*	*	*
incorporators						*
input					*	*

Term	1947	1952	1957	1962	1967	1972
input media					*	*
interest-bearing note	*	*	*	*	*	*
interest rate	*	*	*	*	*	*
internal storage						*
inventory					*	*
invoice	*	*	*	*	*	*
J16	*					
journal	*	*	*	*	*	*
journal entry	*	*				
journalizing	*	*	*	*	*	*
journalless accounting						*
ledger	*	*	*	*	*	*
ledgerless accounting						*
liabilities	*	*	*	*	*	*
life insurance cash value	*	*				
list prices		*			*	*
livestock purchased cost	*	*	*	*		
livestock purchased sales	*	*	*	*		
long-term liabilities			*	*	*	*
loss						*
loss on fixed assets	*	*	*	*	*	*
magnetic ink characters				*	*	*
magnetic ink character reader				*	*	
magnetic ink character recognition				*	*	*
magnetic tape drive						*
maker of a note			*	*	*	*
making a deposit					*	*
manual data processing					*	
maturity date of a note			*	*	*	*
Medicare					*	*
membership record card	*					
membership record book		*	*			
memorandum						*
memorandum entry			*	*	*	*
merchandise	*	*	*	*	*	*
merchandise inventory	*	*	*	*	*	*
merchandise received for produce	*	*	*	*		
merchandising business					*	*
merging						*
minus asset	*	*	*			

Term	1947	1952	1957	1962	1967	1972
miscellaneous current entries	*					
miscellaneous day-to-day entries		*				
miscellaneous entries			*	*	*	
net cost of merchandise purchased			*			
net decrease in capital		*				
net income				*	*	*
net income from operations				*	*	*
net increase in capital			*			
net loss	*	*	*	*	*	
net profit	*	*	*			
net profit from operations			*			
net purchases			*	*	*	*
net sales			*	*	*	*
no-par value stock	*	*	*	*	*	*
non-interest bearing note	*	*	*	*	*	*
notes payable			*	*	*	*
notes payable register	*	*			*	
notes receivable			*	*	*	*
notes receivable register	*	*			*	*
open account		*				*
opening a ledger				*		
opening entry	*	*	*	*	*	*
opening the account		*	*	*	*	*
operating expenses					*	*
other expenses			*			
other income			*			
out of balance	*					
output					*	*
output media					*	*
outstanding check	*	*	*	*	*	*
outstanding deposit					*	*
packing list						*
paper tape reader						*
par value	*	*	*	*	*	*
participation dividends	*	*	*	*	*	*
partner	*	*	*	*	*	*
partnership	*	*	*	*	*	*
passbook	*	*				
patient's record card	*	*	*	*		
payee			*	*	*	*

Term	1947	1952	1957	1962	1967	1972
payee of a note			*	*	*	*
pay period						*
payroll			*	*	*	*
payroll clerks			*			
payroll register						*
payroll taxes	*	*				*
pegboard					*	*
pensions	*					
perpetual inventory				*	*	*
petty cash						*
petty cash book	*	*				
petty cash fund	*	*	*	*	*	
physical inventory				*	*	*
post-closing trial balance	*	*	*	*	*	*
posting	*	*	*	*	*	*
preferred stock				*	*	*
prepaid insurance	*	*	*	*	*	*
present capital	*	*	*			
principal	*	*				
principal of a note	*	*	*	*	*	*
printer						*
printout						*
proceeds	*	*	*	*	*	*
processing						*
profit						*
profit and loss statement	*	*	*			
profit and loss summary account	*	*	*			
profit on fixed assets	*	*				
program					*	*
programmer					*	*
promissory note	*	*	*	*	*	*
property taxes	*					
proprietor					*	*
proprietorship	*	*	*	*	*	
proving cash	*	*	*	*	*	*
punched card						*
purchase on account	*	*	*	*	*	*
purchases account			*			
purchases allowance	*	*	*	*	*	*
purchases discount					*	*

Term	1947	1952	1957	1962	1967	1972
purchase invoice						*
purchase order	*	*	*	*	*	*
purchases journal	*	*	*	*	*	*
purchases return	*	*	*	*	*	*
rate of estimated depreciation	*					
recapitulation form	*					
receipt book	*	*	*			
reconciling the bank statement	*	*	*	*	*	*
report form of balance sheet	*	*	*	*	*	*
reserve for depreciation	*					
restrictive endorsement				*	*	*
retained earnings				*	*	*
reversing entry	*	*	*	*	*	*
reversing income	*					
sale on account		*	*	*	*	*
sales allowance	*	*	*	*	*	*
sales discount						*
sales invoice						*
sales journal	*	*	*	*	*	*
sales return	*	*	*	*	*	*
sales slip	*	*	*	*	*	
sales tax	*			*	*	*
savings account				*	*	*
schedule of accounts payable		*	*	*	*	*
schedule of accounts receivable		*	*	*	*	*
schedule of farm income and expenses	*	*	*	*		
shares	*	*	*		*	*
shares of stock				*		
signature card	*	*	*	*	*	*
single entry accounting						*
single entry bookkeeping				*	*	
social security card	*					
social security deposits		*				
social security taxes	*	*	*	*	*	*
sole proprietorship						*
sorter					*	*
source document					*	*
special column			*			
special journal	*	*			*	*
state unemployment tax			*	*	*	

Term	1947	1952	1957	1962	1967	1972
statement of account	*	*	*	*	*	*
statement of income and expenses	*	*	*			
stock certificate	*	*	*	*	*	*
stockholder	*	*	*	*	*	*
storage					*	*
straight-line method of depreciation					*	*
subscribers	*	*	*	*	*	*
subsidiary ledger	*	*	*	*	*	*
supplies used	*	*				
supporting schedules			*	*	*	*
symbolic flow chart						*
2/10, n/30			*			
T account				*	*	*
tabulating					*	
tabulator					*	*
taking inventory	*					
temporary capital account						*
terms of an invoice		*				
terms of sale				*	*	*
terms of a note					*	*
total decrease in capital		*				
total earnings						*
trade discount		*	*	*	*	*
transportation on purchase			*			
treasurer	*	*	*			
treasurer's report	*	*	*			
trial balance	*	*	*	*	*	*
trial balance in balance		*	*			
trial balance out of balance		*	*			
unit record					*	
unit record card						*
unit record equipment						*
unit record system						*
unit set						*
valuation account	*	*	*	*	*	*
verifier					*	*
verifying						*
verifying extensions		*	*			
voiding a check					*	*
voucher	*	*	*	*	*	*

Term	1947	1952	1957	1962	1967	1972
withdrawal of merchandise						*
withdrawals	*	*	*	*	*	*
work sheet	*	*	*	*	*	*
write-it-once principle					*	*
writing off an account					*	*

APPENDIX B

BOOK TWO: McGRAW-HILL BOOK COMPANY

Term	1953	1958	1963	1968	1973
abstract of accounts payable	*	*	*		
abstract of accounts receivable	*	*	*		
access time			*	*	*
account	*	*	*	*	*
account balance	*	*	*	*	*
account coding					*
account form of balance sheet				*	*
account number				*	*
account title					*
accounting cycle					*
accounting equation				*	*
accounting machine			*	*	*
accounting period				*	*
accounting system					*
accounts payable	*	*	*	*	*
accounts payable file				*	
accounts payable ledger		*	*		
accounts receivable	*	*	*	*	*
accounts receivable account				*	
accounts receivable file				*	
accounts receivable ledger		*	*	*	*
accounts receivable register			*		
accrual basis	*	*	*		
accrued asset					*
accrued expenses	*	*	*	*	*
accrued income	*	*	*	*	
accrued liability					*
accrued revenue					*
accumulated depreciation account				*	*
addition-to-a-form symbol				*	
adjusted bank balance					*
adjusted checkbook balance					*
adjusted trial balance	*	*	*	*	*
adjusting entries	*	*	*	*	
adjustments				*	*

Term	1953	1958	1963	1968	1973
ADP				*	*
aging accounts receivable			*	*	*
allowance for bad debts		*	*	*	
allowance for bad debts account					*
allowance for depreciation		*	*		
alphanumeric keyboard					*
analog computer				*	
arithmetic/logic unit				*	*
assets	*	*	*	*	
audit			*		
audit trail					*
automatic digital computer			*		
automatic typewriter					*
automation			*	*	
average inventory			*		
back order				*	
bad debts	*	*	*	*	
balance-forward card			*		
balance ledger form	*	*	*	*	*
balance sheet	*	*	*	*	*
balance sheet account				*	*
balancing an account					*
balancing and ruling accounts	*	*	*		
balancing accounts				*	
bank discount	*	*	*	*	
bank reconciliation	*	*	*	*	
bank reconciliation statement					*
bank statement				*	*
bar code					*
BASIC					*
basic source document				*	*
batch					*
beginning inventory				*	*
binary number system			*	*	*
bit			*		
biweekly				*	
blank endorsement				*	*
block diagram				*	
block flowchart					*
book of original entry				*	*

Term	1953	1958	1963	1968	1973
book of final entry				*	*
bookkeeping cycle	*	*	*		
book value				*	*
branches			*		
branching				*	*
break-even point			*		
budget			*		
business data processing				*	*
buying on credit					*
by-product					*
by-product tape				*	
calculating punch					*
calculators				*	
calendar quarter					*
calendar year				*	*
canceled check				*	*
capital	*	*	*		*
capital account				*	
capital stock					*
carbon spot				*	
card column					*
card fields			*	*	*
card punch				*	*
card-to-tape converter			*	*	*
cash				*	*
cash basis	*	*	*		
cash control			*		
cash discount				*	*
cash over				*	*
cash payments	*	*	*		
cash payments journal				*	*
cash payments subsystem					*
cash proof				*	*
cash receipts	*	*	*		
cash receipts journal					*
cash receipts register			*		
cash register				*	
cash short				*	*
cash short and over				*	*
central processing unit			*		

Term	1953	1958	1963	1968	1973
central processor				*	*
certified check					*
certified public accountant				*	
change fund					*
change report	*	*	*		
change sheet				*	*
channel code					*
channels			*	*	*
character-sensing			*		
charge ticket	*	*	*		
chart of accounts				*	*
check	*	*	*	*	*
checkbook				*	
check protector				*	*
chronological	*	*	*		
classifying				*	*
closing entries	*	*	*	*	*
closing the ledger					*
COBOL				*	*
code field					*
code position					*
coding				*	*
collator					*
combination journal	*	*	*	*	*
commission					*
common language			*		
common machine language				*	*
communicating					*
communication				*	
compiler program				*	*
compound journal entry				*	*
computer				*	*
computer address				*	*
computing				*	*
computyper			*	*	*
console			*		
continuous forms				*	*
contra account					*
control unit				*	*
controlling account	*	*	*	*	*

Term	1953	1958	1963	1968	1973
decisions			*		
decision symbol				*	
deferred expenses	*	*	*		
deferred income				*	
deferred revenue					*
delinquent account			*		
denomination	*	*	*		
deposit in transit				*	*
deposit ticket					*
depositor					*
depreciation	*	*	*	*	*
depreciation expense account				*	
descriptive machine					*
descriptive statement					*
detail card					*
detail printing				*	
digital computer				*	
direct posting				*	*
disbursements	*	*	*	*	*
discount	*	*	*		
discount period			*	*	*
dishonored check				*	*
dishonored note				*	
disposal value				*	*
distribution of net income					*
dividends	*	*	*		
division of responsibility					*
double-entry bookkeeping	*	*	*	*	
double posting					*
drawee	*	*	*		*
drawer					*
drawing account	*	*	*	*	*
earnings record	*	*	*		
EDP			*		
edge-punched card				*	*
edge-notched cards				*	
electronic computer			*		
electronic data processing			*	*	
employee					*
employee earnings record				*	*

Term	1953	1958	1963	1968	1973
constant data				*	*
corporation	*	*	*	*	*
costs				*	
cost of goods available for sale				*	
cost of goods sold	*	*	*	*	*
CP				*	
credit (cr.)	*	*	*	*	*
credit balance	*	*	*	*	*
credit entry					*
credit manager			*		
credit memorandum				*	*
credit period				*	*
credit rating			*		
credit side					*
crediting an account					*
creditor	*	*	*	*	*
creditor's folder				*	
creditor's ledger		*	*		
cropped corners			*		
cross-referencing	*	*	*	*	*
currency	*	*	*	*	
currency requisition				*	*
current assets	*	*	*	*	*
current liabilities	*	*	*	*	*
customer's folder				*	
customer's ledger	*	*			
cycle billing					*
daily cash report	*	*	*		
data					*
data processing			*		
data processing cycle					*
data tranceiving			*		
debit (Dr.)	*	*	*	*	*
debit balance	*	*	*	*	*
debit entry					*
debit side					*
debiting the account				*	*
debugging				*	
debtor				*	*
decimal number system					*

Term	1953	1958	1963	1968	1973
employee pay statement					*
employer					*
end printing					*
ending inventory				*	*
endorsement			*	*	*
endorser					*
entry	*	*	*		
equipment					*
exemption				*	*
expenditure					*
expense				*	
expense accounts	*	*	*		*
explanation				*	
extension				*	
Federal Income Tax Withholding				*	*
FICA deductions		*	*		
FICA tax				*	*
financial statement				*	*
fiscal period	*	*	*	*	*
fiscal year				*	*
fixed assets		*	*		
fixed liabilities				*	*
Flexowriter				*	*
flowchart	*	*	*	*	*
FOB destination				*	*
FOB shipping point					*
forms					*
forms register				*	*
FORTRAN				*	*
freight in	*	*	*		
freight out	*	*	*		
full endorsement				*	*
funds			*		
FUTA tax				*	*
general journal					*
general ledger					*
general ledger columns					*
GIGO					*
gross earnings				*	*
gross profit					*

Term	1953	1958	1963	1968	1973
gross profit on sales	*	*	*	*	
grouping			*		
group printing			*		
hard copy				*	
header card				*	*
holder				*	
IBM cards			*		
IDP			*	*	*
imprinting device				*	*
in balance					*
income				*	*
income accounts	*	*	*		
income and expense summary				*	
income and expense summary account			*		
income statement			*	*	*
income statement accounts				*	*
indorsement	*	*			
information					*
input			*	*	
input data					*
input device				*	*
input media				*	*
insurance premium	*	*	*		
insurance register	*	*	*		
integrated data processing			*		
interest	*	*	*		
interest-bearing note				*	
interest expense	*	*	*	*	
interest income	*	*	*	*	
interest rate				*	
interest receivable account				*	
interpreter				*	*
interstate commerce				*	*
inventory cards				*	
investment capital			*		
issue date				*	
item card				*	*
journal	*	*	*	*	*
journal entry					*
journalizing				*	*

Term	1953	1958	1963	1968	1973
journalless accounting					*
journalless bookkeeping				*	
key punch machine			*		
labor costs			*		
ledger	*	*	*	*	*
ledger account				*	*
ledgerless accounting					*
ledgerless bookkeeping			*	*	
liabilities	*	*	*	*	*
liquidity					*
listing machine					*
loans payable					*
long-term debts		*			
long-term liabilities			*	*	
looping				*	
loose forms					*
loose-leaf ledger					*
machine bookkeeping			*		
machine language			*	*	*
maker				*	
magnetic ink			*		
magnetic ink characters					*
magnetic tape			*	*	*
management			*		
manipulation				*	*
manual data processing				*	*
margin			*		
mark-sensed card					*
mark-sensing				*	
markup			*		
master card			*		*
matching				*	
maturity date	*	*	*	*	
maturity value				*	
mechanical accounting machine					*
mechanical data processing			*	*	*
Medicare				*	
medium			*		*
memorandum	*	*	*	*	
memorandum entry					*

Term	1953	1958	1963	1968	1973
merchandise				*	*
merchandise inventory	*	*	*	*	*
merchandise turnover			*		
merchandising business				*	
merging				*	
MICR				*	*
mortgage			*		
mortgage payable				*	
multiple column journal			*		
needle			*		
needle sort cards			*		
negotiable instrument	*	*	*		
net cash handled					*
net income			*	*	*
net income from operations				*	
net loss	*	*	*	*	*
net other income				*	
net pay					*
net profit	*	*			
net sales	*	*	*	*	
net worth	*	*	*		
96 column card					*
nondescriptive machine					*
nondescriptive statement				*	*
nonoperating expenses				*	
nonoperating income				*	
notching			*		
notes payable	*	*	*	*	*
notes receivable	*	*	*	*	*
numeric keyboard					*
numeric rows					*
object program				*	*
off-line				*	*
on-line				*	*
one-write system				*	
opening entry					*
operating costs			*		
operating expenses	*	*	*	*	
operation symbol				*	
optical scanning				*	*

Term	1953	1958	1963	1968	1973
optical type front					*
origination				*	*
origination of data					*
other expense				*	
other income				*	
out of balance				*	*
output			*	*	*
output data					*
output device				*	*
output media				*	*
outstanding check				*	*
overhead			*		
overtime	*	*	*		
overtime pay				*	*
owner's equity				*	*
packing slip				*	*
padded multiple forms					*
partner's equity					*
partnership	*	*	*	*	*
pay period				*	*
payment on account					*
payee	*	*	*	*	*
payroll					*
payroll deductions				*	*
payroll period	*	*	*		
payroll register				*	*
pegboard				*	
pegboard accounting			*		
pencil footings	*	*	*	*	*
periodic billing				*	*
periodic inventory				*	
periodic inventory accounting					*
permanent accounts					*
permanent assets			*		
perpetual inventory				*	
perpetual inventory accounting					*
petty cash book				*	*
petty cash fund					*
petty cash voucher	*	*	*	*	*
physical inventory				*	*

Term	1953	1958	1963	1968	1973
PL/1					*
post-closing trial balance	*	*	*	*	*
posting	*	*	*	*	*
posting by total					*
posting reference	*	*	*		
posting reference column					*
posting reference number				*	*
preferred stock	*	*	*		
prenumbered forms					*
prepaid expenses			*	*	*
pricing policy			*		
principal				*	
procedure					*
procedure flowchart					*
proceeds				*	
processing unit			*		
product card			*		
profit and loss statement	*	*			
profit and loss summary account	*	*			
program			*	*	*
program flowchart					*
programmer				*	
promissory note	*	*	*	*	
proprietorship	*	*	*		
protest fee				*	
provision for income taxes					*
proving petty cash					*
punched card data processing				*	
punched cards			*	*	*
punched code					*
punched paper tape			*		*
punched tag					*
punched tape				*	*
punching positions			*		*
purchase allowance				*	*
purchase invoice	*	*	*	*	*
purchase order				*	*
purchase requisition	*	*	*	*	*
purchase return				*	*
purchases (account)				*	

Term	1953	1958	1963	1968	1973
purchases invoice file				*	
purchases journal	*	*	*		*
purchases returns and allowances	*	*	*		
quantity purchases			*		
received on account					*
recorded value					*
recording				*	*
refund			*		
remittance slip					*
replenish	*	*	*	*	
replenishing petty cash					*
report form of balance sheet				*	*
reproducer				*	*
reproducing				*	*
request for quotation				*	*
reserve for bad debts	*	*			
reserve for depreciation	*	*			
restrictive endorsement				*	*
retained earnings					*
retrieving data				*	
return on investment			*		
returned item				*	
revenue				*	*
revenue and expense summary account					*
reversing entries	*	*	*		
rotary file				*	*
RPGII					*
ruling accounts				*	
ruling on account					*
safeguarding funds			*		
sales allowances					*
sales discount	*	*	*	*	*
sales invoice				*	*
sales invoice binder				*	
sales journal	*	*	*	*	
sales order				*	
sales returns					*
sales returns and allowances	*	*	*	*	
sales subsystem				*	*
sales tax				*	*

Term	1953	1958	1963	1968	1973
sales tax payable				*	
schedule of accounts payable	*	*	*	*	*
schedule of accounts receivable	*	*	*	*	*
schedule of accounts receivable by age					*
schedule of cost of goods sold				*	
selecting			*		
sequencing			*		
service charge				*	*
shared time					*
shareholder	*	*			
shipping order				*	*
signature card					*
simulation management techniques			*		
simultaneous recording			*		
single entry bookkeeping			*		
single entry system	*	*			
single proprietorship				*	*
snap-out forms				*	*
social security					*
social security card				*	
social security deduction	*	*	*		
sorter				*	*
sorting			*	*	*
source document				*	*
source program				*	*
special journal					*
special money columns					*
specie		*	*		
standard ledger form	*	*	*	*	*
standardized records			*		
statement of account	*	*	*	*	
statement of owner's equity				*	*
statement symbol				*	
stockholders		*	*		
stockholders' equity					*
stop payment order				*	*
storage unit			*	*	*
storage symbol			*		
stored program				*	*
storing				*	*

Term	1953	1958	1963	1968	1973
straight-line method				*	*
strip accounting				*	*
subsidiary ledger	*	*	*	*	*
subsystem					*
summarizing				*	*
summary card			*		
sundry columns	*	*	*		
surplus account	*	*	*		
symbolic flowchart					*
system flowchart					*
tabulating machine				*	*
tape density				*	*
tape-punching unit			*		
tape-recording unit			*		
tape-to-card converter			*	*	*
temporary accounts					*
time			*		
time card				*	*
time clock					*
trade association			*		
transaction				*	*
transaction card			*		
transfer entries				*	
transposed digits					*
transposition	*	*	*		
transposition of figures				*	
trial balance	*	*	*	*	*
two-column journal					*
unearned income				*	
unearned rental income account				*	
uniform record				*	
unit data card				*	
unit record			*	*	*
unit-set forms				*	*
unpaid invoices files				*	
updating					*
valuation account				*	*
variable data				*	*
verifier			*	*	*
verifying					*

Term	1953	1958	1963	1968	1973
visible record file				*	
visual record file					*
voided				*	*
voucher check					*
voucher pay check				*	
wages					*
withdrawals	*	*	*		
withholding tax	*	*	*		
work sheet	*	*	*	*	*
working assets			*		
write-once accounting			*		
zone rows					*

APPENDIX C

CHRONOLOGY OF CHANGE IN SECONDARY SCHOOL ACCOUNTANCY INSTRUCTION 1947-1973

Two secondary school accounting textbooks were selected for this study. A chronology of change in secondary school accounting instruction was developed for each of the two accountancy textbooks. The chronology included changes in textbook illustrations, instructional materials, and vocabulary terms. The chronology for each textbook is summaried in the following paragraphs.

BOOK ONE: SOUTH-WESTERN PUBLISHING COMPANY

Textbook Illustrations

Five types of textbook illustrations were found to exist: (a) accounting forms; (b) source documents; (c) real life; (d) "T" accounts; and (e) flow charts. In almost all instances these forms experienced an increase in use from the 1947 edition through the 1972 edition.

1947 Edition. Three-color illustrations were presented in a step-by-step sequence and were explained and analyzed. In 1947, there were 301 accounting forms, 34 source documents, 15 real life, 21 "T" accounts, and no flow charts illustrated. There were a total of 371 textbook illustrations used in this edition of the textbook.

1952 Edition. The bookkeeping forms illustrated in the 1952 edition of the textbook conformed to business standards. Illustrations were in three colors and had numbered lines and numbered columns. In 1952 there were 323 accounting forms, 36 source documents, 20 real life, 20 "T" accounts, and no flow charts illustrated. There were a total of 405 textbook illustrations in this edition, an increase of 9.2 percent over the base year, 1947.

1957 Edition. The use of "step numbers," through a step-by-step analysis of an illustrated accounting procedure was keyed to illustrations. All balancing of accounts and all ruling of accounts was completed in black to conform with actual business practice. The decimal was used in numbering minus accounts. In 1957, there were 296 accounting forms, 41 source documents, 19 real life, 26 "T" accounts, and no flow charts illustrated. There were a total of 382 textbook illustrations in this edition, representing an increase of 2.7 percent over the 1947 edition.

1962 Edition. Illustrations were made in four colors. "T" accounts were used to analyze bookkeeping transactions. In 1962, there were 283 accounting forms, 38 source documents, 38 real life, 48 "T" accounts, and no flow charts illustrated. There were a total of 407 textbook illustrations in this textbook, an increase of 9.7 percent above the 1947 number.

1967 Edition. Five color illustrations were used. Flow charts were used to help the student understand the flow of paper work in a data processing system. "T" accounts were used throughout the text

in the debit and credit analysis of each new kind of business transaction. In 1967, 296 accounting forms, 42 source documents, 52 real life, 108 "T" accounts, and 20 flow charts were illustrated. The total number of illustrations used in this edition of the textbook was 518, a 39.6 percent increase over the 1947 edition of the book.

1972 Edition. Color tints were used in illustrating accounting forms, the entries for transactions being explained were highlighted in the illustration by dark black print, and three different types of flow charts were used. This edition of the textbook illustrated 303 accounting forms, 47 source documents, 51 real life, 97 "T" accounts and 44 flow charts, or a total of 542 textbook illustrations representing an increase of 46.1 percent over the 1947 edition of the book.

Instructional Materials

1947 Edition. In 1947 the total number of selected suggested instructional materials was 9.

1952 Edition. In 1952 the total was 15 representing an increase of 66.7 percent of selected instructional materials over the base year, 1947.

1957 Edition. The total number of selected suggested instructional materials reported for 1957 was 13--a 13.3 percent decrease over 1952 but a 44.4 percent increase when compared with the base year.

1962 Edition. The 1962 total number of selected suggested instructional materials was 14; a 7.6 percent increase over 1957 and a 55.6 percent increase over 1947.

1967 Edition. The 1967 edition shows a total of 14 selected suggested instructional materials, the same number reported for 1962 representing no change for the two editions; but, a 55.6 percent increase over the base year is reported.

1972 Edition. In 1972, 16 selected instructional materials were reported. When compared with the 1967 total, there is a 14.3 percent increase; and, when compared with the base year, a 77.8 percent increase is noted.

Vocabulary

1947 Edition. There were 189 vocabulary words included in Book One in the 1947 edition (See Appendix A). The terminology found in the 1947 edition served as a foundation for the study. Later editions were compared with the 1947 edition to identify changes which occurred from one edition to the next.

1952 Edition. In the 1952 edition of the textbook, deferred charges were listed with the current assets in accordance with the American Accounting Association (AAA) recommendation instead of being listed separately on the balance sheet as was the former practice. Other income and other expense senctions were simplified on the profit and loss statement to conform with the best business practices in the early 1950's. Three liability accounts were used for social security taxes instead of one account. The account title "allowance for bad debts" replaced "reserve for bad debts" and "allowance for depreciation" replaced "reserve for depreciation" as a result of accounting practices.

In 1952 there were 195 vocabulary terms listed which was an increase of 3 percent over 1947.

1957 Edition. In 1957 the petty cash book was discontinued because of the modern trend to summarize the petty cash voucher directly into the combination journal. The notes receivable register and the notes payable register were discontinued because most small businesses in the late 1950's did not have a need for notes registers. To conform with changes made in terminology by the federal government, the account title "FICA taxes" replaced "OAB taxes." In 1957 there were 215 vocabulary terms used; a 10.3 percent increase over 1952 and a 14 percent increase over 1947.

1962 Edition. In 1962, the account title "income statement" replaced "profit and loss statement;" "income and expense summary" replaced "profit and loss summary;" and "net income" replaced "net profit." In 1962 there were 208 vocabulary terms; or 3.3 percent decrease over 1957 and a 10 percent increase in comparison with 1947.

1967 Edition. In the 1967 edition, the vocabulary was up-dated to include terms commonly used in data processing. For example, "data" is often used in place of "information;" "source document" in place of "immediate record;" and "flow chart" in place of "diagram." In 1967, there were 252 terms--a 21 percent increase over 1962 and a 33.3 percent increase over 1947.

1972 Edition. In 1972, the word "Accounting: was used in place of "Bookkeeping." The term "capital" replaced "proprietorship," and

"simulation sets" replaced "practice sets." In this edition, there were 289 terms reported representing a 14.6 percent increase over 1967 and a 52.9 percent increase over 1947.

Types of Changes

Social Factors. During the period 1947-1972 there were five changes made in vocabulary as a result of social factors.

Technological Developments. As a result of developments in technology, 53 changes were made in vocabulary usage between 1947 and 1972.

Accountancy Practices. In an effort to conform with actual accounting practices, 77 changes in vocabulary usage were made during the period between 1947 and 1972.

BOOK TWO: McGRAW HILL BOOK COMPANY

Textbook Illustrations

Five types of textbook illustrations were found to exist: (a) accounting forms; (b) source documents; (c) real life; (d) "T" accounts; and (e) flow charts.

1953 Edition. The numerous illustrations point out clearly the learning intended. Each has a teaching purpose. In 1953, there were 257 accounting forms, 59 source documents, 16 real life, 47 "T" accounts, and 7 flow charts illustrated. There were a total of 386 textbook illustrations in this edition of the textbook.

1958 Edition. There were many illustrations in this edition. Each had a teaching purpose and many featured cues, such as lines and arrows to direct the attention of the student to a particular point to be

learned and/or to convey a significant relationship between the parts of a whole. In 1958, there were 270 accounting forms, 64 source documents, 12 real life, 33 "T" accounts, and 6 flow charts illustrated. A total of 385 illustrations or a decrease of .25 percent over the 1953 edition of the textbook were reported.

1963 Edition. Each illustration in this edition was planned with a teaching purpose in mind. Flow charts and diagrams were used to illustrate bookkeeping principles. In the 1963 edition of the textbook, 368 illustrations were used; or, a decrease of 5 percent over the 1953 edition.

1968 Edition. The illustrations were carefully constructed to reinforce, explain, and elaborate upon the concepts taught. Flow charts were used throughout the textbook to illustrate sequences of procedures and to provide students with an authentic grasp of the systems approach to business. The flow charts made use of standardized flow-charting symbols and thus the student became familiar with the set of symbols he/she may encounter in the business world. There were 315 accounting forms, 158 source documents, 50 real life, 88 "T" accounts and 60 flow charts illustrated in this edition of the textbook. A total of 671 illustrations were used; or a 74 percent increase over the 1953 edition.

1973 Edition. Numerous illustrations were used throughout the textbook. The basic concepts were emphasized and highlighted. Flow charts were used to illustrate sequence of procedures. There were 260 accounting forms, 54 source documents, 52 real life, 29 "T" accounts, and 53 flow charts used in the 1973 edition of the book. The total illustrations for this edition were 488, a 16 percent increase over the 1953 edition.

Instructional Materials

1953 Edition. In 1953 the total number of selected suggested instructional materials was nine.

1958 Edition. In 1958 the number of selected suggested instructional materials was 11, a 22 percent increase over 1953.

1963 Edition. The total number of suggested instructional materials reported for 1963 was 10; a decrease of 9 percent over the 1958 edition but an 11 percent increase over the 1953 edition of the textbookk.

1968 Edition. In 1968 the total number of instructional materials reported was 9; a decrease of 10 percent over 1963 but no change based on a comparison with the number reported in the 1953 edition of the book.

1973 Edition. In 1973, there were 10 suggested instructional materials reported; or, an increase of 11 percent over both the 1968 and the 1953 editions of the textbook.

Vocabulary

1953 Edition. There were 120 vocabulary words included in Book Two in the 1953 edition (See Appendix B). The terminology found in the 1953 edition served as a base year for this textbook. Later editions were compared with the 1953 edition to identify changes which occurred from one edition to the next.

1958 Edition. As a result of accountancy practices, the account title "allowance for bad debts" replaced "reserve for bad debts" and

"allowance for depreciation" replaced "reserve for depreciation." In 1958 there were 129 vocabulary terms listed which was an increase of 7.5 percent over the 1953 listing.

1963 Edition. In the 1963 edition of this textbook, a special listing of 74 "Automation and Data Processing Terms" is given. Also, in addition to this special emphasis on automation vocabulary, there are many terms used to emphasize management cases and procedures. In 1963 there were 331 vocabulary words reported. An increase of 46 percent over the 1958 edition and an 88.3 percent increase over the 1953 edition.

1968 Edition. As a result of adopting the accounting approach, many new terms are presented in the 1968 edition of the textbook. The total number of vocabulary words used was 331. An increase of 46 percent over the 1968 edition and a 175.8 percent increase over the 1953 edition of the textbook was reported.

1973 Edition. Automation and data processing account for the majority of new vocabulary words in the 1973 edition of the textbook. In 1973 there were 369 vocabulary words listed which represented an 11 percent increase over the 1968 edition and a 207.5 percent increase over the 1953 edition of the textbook.

Types of Changes

Social Factors. During the period 1953-1973 there were 27 changes made in vocabulary as a result of social factors.

Technological Developments. As a result of developments in technology, 164 changes were made in vocabulary usage between 1953 and 1973.

Accountancy Practices. In an effort to conform with actual accounting practices, there were 43 changes made in vocabulary usage as indicated in the 1953-1973 editions of this textbook.

APPENDIX D

TOTAL VOCABULARY, 1947-1973

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
A.B.A. Numbers	*	*	*	*	*	*
abstract of accounts payable	*	*	*			
abstract of accounts receivable	*	*	*			
access time				*	*	*
account	*	*	*	*	*	*
account balance	*	*	*	*	*	*
account coding						*
account form of balance sheet	*	*	*	*	*	*
account in balance	*	*				
account number				*	*	*
account title	*	*	*	*	*	*
accountant					*	*
accounting						*
accounting clerk						*
accounting cycle						*
accounting equation					*	*
accounting machine				*	*	*
accounting period	*	*	*	*	*	*
accounting records						*
accounting system						*
accounts payable account	*	*	*			
accounts payable file					*	
accounts payable ledger	*	*	*	*	*	*
accounts receivable		*	*	*	*	*
accounts receivable account	*	*	*		*	
accounts receivable file					*	
accounts receivable ledger	*	*	*	*	*	*
accounts receivable register			*			
accrual basis	*	*	*	*	*	*
accrued assets						*

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
accrued expenses	*	*	*	*	*	*
accrued income	*	*	*	*	*	*
accrued interest expense					*	*
accrued interest income		*	*	*	*	*
accrued liability						*
accrued revenue						*
accrued salary expense						*
accumulated depreciation account					*	*
addition-to-a-form symbol					*	
adjusted bank balance						*
adjusted checkbook balance						*
adjusted trial balance	*	*	*	*	*	*
adjusting entries	*	*	*	*	*	*
adjustments			*	*	*	*
ADP					*	*
aging accounts receivable				*	*	*
allowance for bad debts		*	*	*		
allowance for bad debts account						*
allowance for depreciation		*	*	*		
alphanumeric keyboard						*
analog computer					*	
analysis paper	*	*	*	*	*	*
annuities	*					
appointment book	*	*	*	*		
arithmetic/logic unit					*	*
articles of copartnership	*	*	*	*	*	
articles of incorporation						*
assets	*	*	*	*	*	*
audit				*		
audit trail						*
authorized capital stock	*	*	*	*	*	*
autographic register					*	*
automated data processing					*	*
automated data processing cycle						*
automated data processing system						*

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
automated equipment				*		
automatic digital computer				*		
automatic typewriter						*
automation				*	*	*
auxiliary storage						*
average inventory				*		
back order				*		
bad debts	*	*	*	*	*	*
bad debts expense		*	*	*	*	*
balance column ledger ruling		*	*	*		
balance forward card				*		
balance ledger form		*	*	*	*	*
balance sheet	*	*	*	*	*	*
balance sheet account					*	*
balancing an account	*	*	*	*	*	*
balancing and ruling accounts		*	*	*		
bank balance	*	*	*	*	*	*
bank discount	*	*	*	*	*	*
bank passbook	*	*	*	*		
bank reconciliation		*	*	*	*	
bank reconciliation statement						*
bank service charge			*	*	*	*
bank statement			*	*	*	*
bar code						*
BASIC						*
basic source document					*	*
batch						*
beginning inventory					*	*
binary number system				*	*	*
bit					*	
biweekly					*	
blank endorsement				*	*	*
block diagram					*	*
block flowchart						*
board of directors	*	*	*	*	*	*

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
book of accounts receivable						*
book of original entry		*	*		*	*
book of final entry					*	*
book of secondary entry						*
bookkeeper			*		*	
bookkeeping					*	
bookkeeping cycle					*	
bookkeeping equation					*	
bookkeeping machine					*	
book value	*	*	*	*	*	*
branches				*		
branching					*	*
break-even point				*		
budget	*	*	*	*		
business data processing					*	*
business transactions	*	*	*	*	*	*
buying on credit						*
by-product						*
by-product tape					*	
calculating punch						*
calculators					*	*
calendar quarter						*
calendar year					*	*
canceled check	*	*	*	*	*	*
		*	*	*		*
capital						
capital account					*	
capital statement					*	*
capital stock	*	*	*	*	*	*
carbon spot					*	
card column						*
card fields				*	*	*
card punch					*	*
card punch machine					*	
card reader						*
card-to-tape converter				*	*	*
case docket	*	*	*	*		
cash			*		*	*
cash basis	*	*	*	*	*	*
cash control				*		

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
cash discount	*	*	*	*	*	*
cash items			*			
cash journal				*	*	*
cash method of handling purchases			*			
cash over	*	*	*	*	*	*
cash payments		*	*	*		
cash payments journal	*	*	*	*	*	*
cash payments subsystem						*
cash payments transaction				*	*	
cash proof					*	*
cash receipts		*	*	*		
cash receipts journal	*	*	*	*	*	
cash receipts register					*	
cash receipts transaction	*	*	*	*	*	*
cash register	*	*	*	*	*	*
cash sale			*	*	*	
cash short	*	*	*	*	*	*
cash short and over					*	*
cash surrender value			*	*		
cash transaction	*	*	*			
cashbook			*			
central processing unit				*		*
central processor					*	*
certificate of incorporation	*	*	*	*	*	
certified check						*
certified public accountant					*	
change fund						*
change report		*	*	*		
change sheet					*	*
channel code						*
channels				*	*	*
character-sensing				*		
charge-a-plate					*	
charge customer	*	*	*	*	*	*
charge sale	*	*				
charge ticket		*	*	*		
chart of accounts	*	*	*	*	*	*
charter				*	*	*
check	*	*	*	*	*	*
checkbook					*	

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
check protector					*	*
checking account				*	*	*
chronological		*	*	*		
classifying					*	*
closed account	*	*	*	*	*	*
closing entries	*	*	*	*	*	*
closing the ledger	*	*	*	*	*	*
COBOL					*	*
code field						*
code position						*
coding					*	*
collator					*	*
collection docket	*	*	*	*		
columnar cash payments journal	*	*	*			
columnar cash receipts journal	*	*	*			
columnar general journal	*	*	*			
columnar journal			*			
combined cash journal	*	*				
combination journal		*	*	*	*	*
combined entry	*	*	*	*	*	*
combined journal			*			
commission						*
common language				*		
common machine language					*	*
common stock				*	*	*
communicating					*	
communication					*	
compiler program					*	*
compound journal entry					*	*
computer					*	*
computer address					*	*
computing					*	*
computyper				*	*	*
console				*		
continuous forms					*	*
contra account						*
control unit					*	*
controlling account	*	*	*	*	*	*
constant data					*	*
cooperative	*	*	*	*	*	*

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
corporation	*	*	*	*	*	*
correcting entries	*	*	*	*	*	*
costs					*	
cost of goods available for sale					*	
cost of goods sold		*	*	*	*	*
CP					*	
credit (Cr.)		*	*	*	*	*
credit amount column				*		
credit balance	*	*	*	*	*	*
credit card						*
credit column			*		*	
credit entry						*
credit manager				*		
credit memorandum	*	*	*	*	*	*
credit period					*	*
credit rating				*		
credit sale						*
credit side			*	*	*	*
credited					*	
crediting an account						*
creditor	*	*	*	*	*	*
creditor's folder					*	
creditor's ledger		*	*			
credits	*	*				
cropped corners				*		
cross-referencing		*	*	*	*	*
currency		*	*	*	*	
currency requisition					*	*
current assets	*	*	*	*	*	*
current liabilities	*	*	*	*	*	*
customers					*	*
customer's folder					*	
customer's ledger		*	*			
cycle billing					*	*
daily cash report		*	*	*		
data					*	*
data communications						*
data processing				*	*	*
data processing cycle						*
data processing system						*

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
data transceiving				*		
date of a note					*	*
debit (Dr.)	*	*	*	*	*	*
debit amount column				*		
debit balance	*	*	*	*	*	*
debit column		*		*		
debit entry						*
debit memorandum						*
debit side			*	*	*	*
debited					*	
debiting the account					*	*
debugging					*	
debtor					*	*
decimal number system						*
decisions				*		
decision symbol					*	
declared a dividend					*	
declaring a dividend						
deferred charges	*					
deferred expenses		*	*	*		
deferred income					*	
deferred revenue						*
deficit			*	*	*	*
delinquent account					*	
denomination	*	*	*			
deposit in transit					*	*
deposit slip					*	*
deposit ticket	*	*	*	*		*
depositor				*	*	*
depreciation	*	*	*	*	*	*
depreciation expense account					*	
descriptive machine						*
descriptive statement						*
detail card						*
detail printing					*	
detailed audit strip	*	*	*	*		
detailed audit tape						*
digital computer					*	
direct posting					*	*
direct write-off of uncollectible accounts					*	*

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
disbursements		*	*	*	*	*
discount		*	*	*		
discount period				*	*	*
discount on purchases	*	*	*	*		
discount on sales	*	*	*	*		
discounted note						*
dishonored	*	*				
dishonored check				*	*	*
dishonored note			*	*	*	*
disposal value					*	*
distribution of net income statement						*
divided column journal	*	*	*			
dividend on capital stock					*	*
dividends	*	*	*	*	*	*
division of responsibility						*
division of the ledger		*				
double entry accounting						*
double entry bookkeeping		*	*	*	*	
double page cashbook	*	*				
double posting						*
drawee		*	*	*		*
drawer			*	*	*	*
drawing account		*	*	*	*	*
earned suprlus			*			
earnings record			*	*	*	
EDP/electronic data process processing				*		*
edge-notched card					*	*
edge-punched card					*	*
electronic computer				*	*	
electronic computer system					*	
employee						*
employee earnings record					*	*
employee pay statement						*
employer						*
end printing						*
ending inventory					*	*
endorsement			*	*	*	*
endorsement in full				*	*	*
endorser						*
endorsing			*			

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
entry		*	*	*	*	
equipment	*	*	*	*	*	*
equipment record card	*	*	*			
equities				*	*	*
estimated salvage value						*
estimated scrap value					*	
exemption				*	*	*
expenditure						*
expense	*	*	*	*	*	*
expense accounts	*	*	*	*		*
explanation					*	
extension					*	
federal income tax withholding					*	*
federal unemployment tax	*	*	*	*		*
FICA deductions			*	*		
FICA tax			*	*	*	*
financial statement					*	*
fiscal period		*	*	*	*	*
fiscal year					*	*
fixed assets	*	*	*	*	*	*
fixed assets record					*	*
fixed liabilities	*	*	*	*	*	
Flexowriter				*	*	*
flowchart				*	*	*
f.o.b. destination					*	*
f.o.b. shipping point					*	*
footing	*	*	*	*	*	*
forms						*
forms register					*	*
FORTRAN					*	*
freight in		*	*	*		
freight out		*	*	*		
full endorsement					*	*
funds				*		
FUTA tax					*	*
gain on fixed assets			*	*	*	*
general journal	*	*	*	*	*	*
general ledger		*	*	*	*	*
general ledger columns						*
GIGO						*

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
goodwill	*					
grand total	*	*	*			
gross earnings					*	*
gross profit						*
gross profit on sales	*	*	*	*	*	*
grouping				*		
group printing				*		
hard copy					*	
header card					*	*
holder					*	
IBM cards				*		
IDP				*	*	*
immediate record			*	*		
imprinting device					*	*
in balance	*	*				*
income	*	*	*	*	*	*
income accounts	*	*	*	*		
income and expense summary				*	*	
income and expense summary account				*		
income statement				*	*	*
income statement account					*	*
incorporators						*
indorsement		*	*			
information						*
input				*	*	*
input data						*
input device					*	*
input media					*	*
insurance premium		*	*	*		
insurance register		*	*	*		
integrated data processing					*	
interest		*	*	*		
interest-bearing note	*	*	*	*	*	*
interest expense		*	*	*	*	
interest income		*	*	*	*	
interest rate	*	*	*	*	*	*
interest receivable account					*	
internal storage						*
interpreter					*	*
interstate commerce					*	*

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
inventory					*	*
inventory cards					*	
investment capital				*		
invoice	*	*	*	*	*	*
issue date					*	
item card					*	*
J-16	*					
journal	*	*	*	*	*	*
journal entry	*	*				*
journalizing	*	*	*	*	*	*
journalless accounting						*
journalless bookkeeping					*	
key punch machine				*		
labor costs				*		
ledger	*	*	*	*	*	*
ledger account					*	*
ledgerless accounting						*
ledgerless bookkeeping				*	*	
liabilities	*	*	*	*	*	*
life insurance cash value	*	*				
liquidity						*
list prices		*			*	*
listing machine						*
livestock purchased cost	*	*	*	*		
livestock purchased sales	*	*	*	*		
loans payable						*
long-term debts				*		
long-term liabilities			*	*	*	*
looping					*	
loose forms						*
loose-leaf ledger						*
loss						*
loss on fixed assets	*	*	*	*	*	*
machine bookkeeping				*		
machine language				*	*	*
magnetic ink				*		
magnetic ink character				*	*	*
magnetic ink character reader					*	*
magnetic ink character recognition				*	*	*
magnetic tape				*	*	*

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
magnetic tape drive						*
maker					*	
maker of a note					*	*
making a deposit					*	*
management				*		
manipulation					*	*
manual data processing					*	*
margin				*		
mark-sensed card						*
mark-sensing					*	
markup				*		
master card				*		*
matching					*	
maturity date		*	*	*	*	
maturity date of a note			*	*	*	*
maturity value					*	
mechanical accounting machine						*
mechanical data processing				*	*	*
Medicare					*	*
medium				*		*
membership record card	*					
membership record book		*	*			
memorandum		*	*	*	*	*
memorandum entry			*	*	*	*
merchandise	*	*	*	*	*	*
merchandise inventory	*	*	*	*	*	*
merchandise received for produce	*	*	*	*		
merchandise turnover				*		
merchandising business					*	*
merging					*	*
MICR					*	*
minus asset	*	*	*			
miscellaneous current entries	*					
miscellaneous day-to-day entries		*				
miscellaneous entries			*	*	*	

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
mortgage				*		
mortgage payable					*	
multiple column journal				*		
needle				*		
needle sort cards				*		
negotiable instrument		*	*	*		
net cash handled						*
net cost of merchandise purchased			*			
net decrease in capital		*				
net income				*	*	*
net income from operations				*	*	*
net increase in capital			*			
net loss	*	*	*	*	*	*
net other income					*	
net pay						*
net profit	*	*	*			
net profit from operations			*			
net purchases			*	*	*	*
net sales		*	*	*	*	*
net worth		*	*	*		
96 column card						*
no par value stock	*	*	*	*	*	*
nondescriptive machine						*
nondescriptive statement					*	*
non-interest bearing note	*	*	*	*	*	*
nonoperating expenses					*	
nonoperating income					*	
notching				*		
notes payable		*	*	*	*	*
notes payable register	*	*			*	
notes receivable		*	*	*	*	*
notes receivable register	*	*			*	*
numeric keyboard						*
numeric rows						*
object program					*	*
off-line					*	*
on-line					*	*
one-write system					*	
open account		*				*
opening a ledger				*		

Term	1947	1952/52	1957/58	1962/63	1967/68	1972/73
opening entry	*	*	*	*	*	*
opening the account		*	*	*	*	*
operating costs				*		
operating expenses	*	*	*	*	*	
operation symbol					*	
optical scanning					*	*
optical type font						*
origination					*	*
origination of data						*
other expense			*		*	
other income			*		*	
out of balance	*				*	*
output				*	*	*
output data						*
output device					*	*
output media					*	*
outstanding check	*	*	*	*	*	*
outstanding deposit					*	*
overhead				*		
overtime		*	*	*		
overtime pay					*	*
owner's equity					*	*
packing slip					*	*
padded multiple forms						*
paper tape reader						*
par value	*	*	*	*	*	*
participation dividends	*	*	*	*	*	*
partner	*	*	*	*	*	*
partner's equity						*
partnership	*	*	*	*	*	*
passbook	*	*				
patient's record card	*	*	*	*		
pay period					*	*
payment on account						*
payee		*	*	*	*	*
payee of a note			*	*	*	*
payroll			*	*	*	*
payroll clerks			*			
payroll deductions					*	*
payroll period		*	*	*		*

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
payroll register					*	*
payroll taxes	*	*				*
pegboard					*	*
pegboard accounting				*		
pencil footings		*	*	*	*	*
pensions	*					
periodic billing					*	*
periodic inventory					*	
periodic inventory accounting						*
permanent accounts						*
permanent assets				*		
perpetual inventory				*	*	*
perpetual inventory accounting						*
petty cash						*
petty cash book	*	*			*	*
petty cash fund	*	*	*	*	*	*
petty cash voucher		*	*	*	*	*
physical inventory				*	*	*
PL/1						*
post-closing trial balance	*	*	*	*	*	*
posting	*	*	*	*	*	*
posting by total						*
posting reference		*	*	*		
posting reference column						*
posting reference number					*	*
preferred stock		*	*	*	*	*
prenumbered forms						*
prepaid expenses				*	*	*
prepaid insurance	*	*	*	*	*	*
present capital	*	*	*			
pricing policy				*		
principal	*	*			*	
principal of a note	*	*	*	*	*	*
printer						*
printout						*
procedure						*
procedure flowchart						*
proceeds	*	*	*	*	*	*
processing						*
processing unit				*		

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
product card				*		
profit						*
profit and loss statement	*	*	*			
profit on fixed assets	*	*				
profit and loss summary account	*	*	*			
program				*	*	*
program flowchart						*
programmer					*	*
promissory note	*	*	*	*	*	
property taxes	*					
proprietor					*	*
proprietorship	*	*	*	*	*	
protest fee					*	
proving cash	*	*	*	*	*	*
proving petty cash						*
provision for income taxes						*
punched card data processing					*	
punched cards				*	*	*
punched code						*
punched paper tape				*		*
punched tag						*
punched tape					*	*
punching positions				*		*
purchase allowance	*	*	*	*	*	*
purchase discount					*	*
purchase invoice		*	*	*	*	*
purchase on account	*	*	*	*	*	*
purchase order	*	*	*	*	*	*
purchase requisition		*	*	*	*	*
purchase return	*	*	*	*	*	*
purchases (account)					*	
purchases invoice file						
purchases journal	*	*	*	*	*	*
purchases returns and allowances		*	*	*		
quantity purchases				*		

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
rate of estimated depreciation	*					
recapitulation form	*					
receipt book	*	*	*			
received on account						*
reconciling the bank statement	*	*	*	*	*	*
recorded value						*
recording					*	*
refund				*		
remittance slip						*
replenish		*	*	*	*	
replenishing petty cash						*
report form of balance sheet	*	*	*	*	*	*
reproducer					*	*
reproducing					*	*
request for quotation					*	*
reserve for bad debts		*	*			
reserve for depreciation	*	*	*			
restrictive endorsement				*	*	*
retained earnings				*	*	*
retrieving data					*	
return on investment				*		
returned item					*	
revenue					*	*
revenue and expense summary account						*
reversing entries	*	*	*	*	*	*
	*					
reversing income	*					
rotary file					*	*
RPGII						*
ruling accounts					*	
ruling an account						*
safeguarding funds				*		
sale on account		*	*	*	*	*
sales allowances	*	*	*	*	*	*
sales discount		*	*	*	*	*
sales invoice					*	*

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
sales invoice binder					*	
sales journal	*	*	*	*	*	*
sales order					*	
sales returns	*	*	*	*	*	*
sales returns and allowances		*	*	*	*	
sales slip	*	*	*	*	*	
sales subsystem					*	*
sales tax	*			*	*	*
sales tax payable					*	
savings account				*	*	*
schedule of accounts payable		*	*	*	*	*
schedule of accounts receivable		*	*	*	*	*
schedule of accounts receivable by age						*
schedule of cost of goods sold					*	
schedule of farm income and expenses	*	*	*	*		
selecting				*		
sequencing				*		
service charge					*	*
shared time						*
shareholder			*	*		
shares	*	*	*		*	*
shares of stock				*		
shipping order					*	*
signature card	*	*	*	*	*	*
simulation management techniques				*		
simultaneous recording				*		
single entry accounting						*
single entry bookkeeping				*	*	
single entry system		*	*			
single proprietorship					*	*

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
snap-out forms					*	*
social security						*
social security card	*				*	
social security deduction		*	*	*		
social security deposits		*				
social security taxes	*	*	*	*	*	*
sole proprietorship						*
sorter					*	*
sorting				*	*	*
source document					*	*
source program					*	*
special column			*			
special journal	*	*			*	*
special money columns						*
specie			*	*		
standard ledger form		*	*	*	*	*
standardized records				*		
state unemployment tax			*	*	*	
statement of account	*	*	*	*	*	*
statement of income and expenses	*	*	*			
statement of owner's equity					*	*
statement symbol					*	
stock certificate	*	*	*	*	*	*
stockholders	*		*	*	*	*
stockholders' equity						*
stop payment order					*	*
storage					*	*
storage symbol				*		
storage unit				*	*	*
stored program					*	*
storing					*	*
straight-line method					*	*
strip accounting					*	*
subscribers	*	*	*	*	*	*
subsidiary ledger	*	*	*	*	*	*
subsystem						*
summarizing					*	*
summary card				*		
sundry columns		*	*	*		
supplies used	*	*				

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
supporting schedules		*	*	*	*	
surplus account		*	*	*		
symbolic flowchart						*
system flowchart						*
"T" account				*	*	*
tabulating					*	
tabulating machine					*	*
tabulator					*	*
taking inventory	*					
tape density					*	*
tape-punching unit				*		
tape-recording unit				*		
tape-to-card converter				*	*	*
temporary accounts						*
temporary capital account						*
terms of an invoice		*				
terms of sale				*	*	*
terms of a note					*	*
time				*		
time card					*	*
time clock						*
total decrease in capital		*				
total earnings						*
trade association				*		
trade discount		*	*	*	*	*
transaction					*	*
transaction card				*		
transfer entries					*	
transportation on purchases			*			
transposed digits						*
transposition		*	*	*		
transposition of figures					*	
treasurer	*	*	*			
treasurer's report	*	*	*			
trial balance	*	*	*	*	*	*
trial balance in balance		*	*			
trial balance out of balance		*	*			
2/10, N/30				*	*	*
two-column journal						*
unearned income					*	

Term	1947	1952/53	1957/58	1962/63	1967/68	1972/73
unearned rental income account					*	
uniform record					*	
unit data card					*	
unit record				*	*	*
unit record card						*
unit record system						*
unit set						*
unit set forms					*	*
unpaid invoices files					*	
updating						*
valuation account	*	*	*	*	*	*
variable data					*	*
verifier				*	*	*
verifying						*
verifying extensions		*	*			
visible record file					*	
visual record file						*
voided					*	*
voiding a check					*	*
voucher	*	*	*	*	*	*
voucher check						*
voucher pay check					*	
wages						*
withdrawal of merchandise						*
withdrawals	*	*	*	*	*	*
withholding tax		*	*	*		
work sheet		*	*	*	*	*
working assets				*		
write-it-once principle					*	*
write-once accounting				*		
writing off an account					*	*
zone rows						*

VITA

Mary Louise Jerrell Noblitt was born in Rose Hill, Virginia on September 8, 1936. She attended the public schools in Lee County, Virginia and was graduated from Flatwoods High School, Jonesville, Virginia in 1953. The following September she entered Radford College, Radford, Virginia and in August, 1957, she received a Bachelor of Science degree with a major in business education.

In January, 1957, she accepted a teaching position with Roanoke County Schools, Salem, Virginia. Since that time she has taught seven years in the public schools of Virginia and Georgia, and one year at the junior college level. Also, she has had seven years of secretarial experience.

She entered the Graduate School of The University of Tennessee, Knoxville in the Fall, 1972, as a part time student while employed full-time as secretary to the Assistant Dean for Graduate Programs, in the College of Business Administration, The University of Tennessee, Knoxville. In August, 1975, she received the Master of Science degree with a major in business education and a minor in office administration.

She is a member of Delta Pi Epsilon, Phi Delta Kappa, and the National Business Education Association. In the Fall, 1975, she will be teaching in the Department of Business, Longwood College, Farmville, Virginia.

She is married to Jerry Spencer Noblitt of Marion, North Carolina and has two daughters, Nancy and Sandra.