

1926

Content and methods of teaching bookkeeping in the public high schools

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Boston University

School of Education.

Thesis

CURRENT METHODS OF GIVING SOCIAL STUDIES IN THE PUBLIC HIGH SCHOOLS.

Submitted by

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(B.E.A., Boston University, 1925)

In partial fulfillment of requirement for the
degree of Master of Education

1926.

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GENERAL PRINCIPLES OF LEARNING BOOKKEEPING

IN THE PUBLIC HIGH SCHOOLS.

I. Introduction of Bookkeeping.

Bookkeeping is simply a specialized form of the art of keeping accounts. It is neither a sudden discovery, nor an inspiration, but the outcome of continued efforts to meet the necessities of trade as they gradually developed. One by one the successive steps in the evolution of account-books were achieved until it was realized that the transactions of a business in their entirety form a homogeneous whole which is capable of being marshalled in the framework of a system. When this was discovered, there originated what is known as "double-entry" which may be said to form the basis of all systems of bookkeeping.

The human mind cannot be depended upon accurately to remember exact details for any long period of time, so ever since credit first existed and debts were first incurred there has been a need of permanent financial memoranda. There must be a correct story about every value due and every value owned, and that is the reason why bookkeepers the world over are daily writing histories of the business benefits given and received.

It is apparent that before value can be received it must be supplied, and when value is furnished the necessity instantly arises of fixing the responsibility for the transaction. In other words, a notation, or written record, must be made following the exchange of value in order to

indicate who or what has been charged as the receiver of the value, and who or what has given the value.

It is not enough to merely make notations of these transactions. There are such large numbers of them every day that segregation becomes necessary. The bookkeeper must, therefore, always bear in mind the three-fold object of his work, first, to furnish information on past experience which will aid in formulating future plans; second, to supply data for statements, analyses and summaries; and third, to indicate the progress, needs, condition, assets and liabilities of the business. By systematically classifying the daily transactions under headings that will definitely control the information given under them, such as Sales, Purchases, Cash, etc., there will always be available from the bookkeeping department of a concern, all the necessary statistical information that the owners of the business will require.

Of course, any bookkeeping system once begun can be divided and redivided, but since owners of business are primarily interested in the income and outgo of their money, the best bookkeepers follow simple methods that are accurate in form and complete in detail. They do not spend much time recording non-essential information, for they well know that all that is required of any bookkeeper is that his accounting system be one that can render a brief financial story of every business day, in a simple and understandable way.

The science and practice of bookkeeping is itself very old, dating back to the Assyrians and Babylonians. In the early part of the tenth century when collectors of fines and fees made notations of those primitive business transactions, crude records of their finds had to be reported to the king.

The first instruction in bookkeeping of which there is record was in Italy in the early part of the sixteenth century. The art of bookkeeping at that time had been pretty fully developed in that country and the first treatise on the subject had been published by Luca Paciolo in 1494 at Venice. This treatise was the basis of instruction in bookkeeping and many private schools sprang up. The knowledge of bookkeeping soon spread to other countries by the latter part of the sixteenth century.

Bookkeeping is the pioneer among commercial subjects. The earliest business schools taught bookkeeping primarily although penmanship and commercial arithmetic were given a measure of attention in their relation to the main subject. The high schools taught bookkeeping long before present-day courses with their complete list of commercial subjects were thought of. Thus the teaching of bookkeeping marked the beginning of commercial education. With the development of commercial work in the high schools and the consequent increase in the number of commercial subjects, bookkeeping has retained an important place in the curriculum of commercial studies.

There was a little trace of commercial education in the American colonies, although at that time it did not play an important part in the school system. With the rising importance of trade in the seventeenth century, "writing-schools", so-called, came into prominence. Lads, even of good families, who showed more aptitude for money-making than for learning Latin were sent to the writing school to learn "good hands and accounts". In these schools, were taught an elaborate penmanship, arithmetic, and the science of bookkeeping, complicated and made intricate in that day by the multitude of varying monetary systems. Writing schools were private ventures and in contrast to the severity practiced in the grammar school, the writing school enforced no discipline whatever. Until the close of the seventeenth century such handy and useful schools were rarely, if ever, endowed.

Commercial life was formerly a simple matter and commercial education was thought not to be a function of the schools. The beginning of commercial education in the United States was in answer to definitely voiced demands. At first the boys left school early and were trained by their employer. More men were attracted than offices could train. Private schools and classes in bookkeeping sprang up in cities between 1830 and 1840. They were forerunners of the modern business schools, numbering 2,000, found in all the important cities, and contained about one-half of all the commercial

students. The main subject taught in these private schools were penmanship, bookkeeping, commercial arithmetic, commercial law, and later stenography and typewriting.

In 1893 there were 115,743 enrolled in private business and commercial schools. After 1895, the number diminished for two reasons, general business depression; public high schools, normal schools and universities were offering commercial instruction. Private commercial schools still occupy an important place. They must be regarded as trade schools. They train the mind but fail to develop it.

As early as 1850 the importance of a commercial education was felt in Boston, when their teachers became familiar with shorthand and bookkeeping. Shorthand was made a part of the course in the Central High school of Philadelphia and of St. Louis High school in 1865. This marks the real beginning of commercial education in the public high schools and today about 65% of public high-school graduates seek employment in business offices.

In 1895 the United States Bureau of Education showed 11,220 students pursuing commercial subjects in the high schools. Until 1900 progress was slow. In 1908 there were 574 commercial schools with 146,288 students. In 1921 there were 270,517 pupils in the secondary schools studying bookkeeping; 191,901 studying shorthand, and 231,524 studying typewriting.

Until the close of the nineteenth century pupils enrolled in secondary schools constituted a roughly homogeneous group

in the sense that they were boys and girls from relatively well-to-do American families, who for the most part looked forward to a cultural education in the high school which would prepare them for college. The past quarter of a century has marked a period in the development of secondary education characterized by the expansion of secondary schools so as to provide education for classes of pupils never before represented in large numbers in secondary schools. The result is an increased attention to varied capacities, interest, and probable future activities of secondary school pupils, and to the differentiated needs of society.

Training for business is of a more recent origin than any other line of scientific training. The first schools offered short unit courses, purely vocational in character, and were operated for personal gain. This type of institution has rendered a very great service by supplying business with clerical help and at the same time enabling a large number of young people to earn a livelihood. There are more students in America taking this type of training today than there are in all other unit vocational schools combined. Lately, business came knocking at the high school door and forced admission. Backed by the demands of the pupil, the wishes of the parent, the needs of business and the threat of migration to the business college, the commercial department of the high school has come into its own. Commercial

departments of academic high schools, commercial high schools, and high schools of commerce are the outgrowth of the country's needs. The establishment of commercial high schools and high schools of commerce in Boston, New York, Washington, Philadelphia, Pittsburgh, Detroit, Cleveland, and many other cities, is an evidence of the growing popularity of commercial education.

The economic development of the world has demanded a recognition of the fact that if the schools are to fulfill their obligations they must train their students for places in business and industry, as well as give them a background of culture.

This does not necessarily mean that the sole purpose of business education is the making of dollars, and it does inculcate a knowledge of those things which make life worthwhile. It is true that the student can arrange his instruction so he may enter the business world when he leaves school but he can also arrange his instruction so that he may obtain the same general cultural advantages which the old type of education gave plus a most useful and salable practical skill.

III. Fundamental Aims.

The value of bookkeeping training must be judged from two standpoints, - educational and vocational. It is doubtful whether any subject can be allowed a place in the school curriculum solely on a vocational basis. It must also possess educational value in large measure.

If properly presented, bookkeeping has a distinct educational value, and will develop the student's reasoning powers in regard to business affairs, because bookkeeping is applied economics. It is intensely practical, but that in itself detracts from its educational value, should enlarge it because of the element of interest involved. This interest is too often killed by the mechanical methods used in teaching the subject. Not the recording, but the effect of a business transaction on the financial affairs of a business should be emphasized. The record-making, while important, is only incidental. The ability to form correct judgments as to the financial effect of the operations of a business unit, the management viewpoint, is the important thing for the student's future growth. The student no longer looks to the collecting of information as an end in itself, but only as a means of directing the operation of the business more effectively. His viewpoint is larger; it is that of the manager or executive instead of the recorder or bookkeeper.

If the chief and ultimate end of the work planned is the purely vocational one of training bookkeepers, it must be admitted that the educational value of the subject is reduced to a minimum. On the other hand the possibilities of bookkeeping become unlimited, when, through a vastly different method of presentation, emphasis is placed, not on the attainment of a knowledge of the subject as such, but on the development of strong character, good business habits and logical thinking power. Here the mastery of account-keeping itself is made a purely incidental aim:- the means to an end, the by-product in a process of the teaching of business, developing business habits, and making an approach toward a study of the administrative problems of business.

The educational objective strives to give pupils a knowledge of the principles of management which govern the conduct of conservative men in their business affairs. The pupil learns the value of business reports and records as a means of providing information which is necessary for the application of these principles. He must gain sound concepts of assets, capital, liabilities, profits and losses. The knowledge required of business documents, type of business organizations and problems will give the pupil a broader conception of the world of business. In other words, in the educational objective, the substance of the subject rather than the procedure is stressed.

Bookkeeping is vocational only because of its subject matter. The vocational objective is realized when we have prepared the pupil to accept a position, either as a clerical worker, assistant bookkeeper, or even as a bookkeeper in the accounting department of an office where there are possibilities of advancement.

For those who expect to make the knowledge of bookkeeping the final aim of the course, emphasis should be placed on technique, while for those whose interests center, not on the records themselves, but more especially the message conveyed through the medium of accountancy, major emphasis will have to be placed on how best to utilize such knowledge as is gathered from a reading of the records.

The subject can be given cultural value, if we take Dr. John Dewey's definition of culture as "the vital union of information and discipline designating the socialization of the individual in his whole outlook upon life and his mode of dealing with it". Many of the economic forces operating in the different phases of activity, are defined in a language expressed in accounting terms. Bookkeeping, therefore in its proper presentation not only should contribute a broader understanding of the activities of commercial life, but should enable the possessor of a knowledge of its principles to appreciate more fully the significance of the phenomena of business in their relation to the rest of his affairs.

III. Purpose of Teaching Bookkeeping.

The bookkeeping department reaches into all of the other departments of a business and makes a record of their various activities, and so serves informational data needed for the proper management of the business enterprise. The technique and methods used in keeping the records of a business are the outgrowth of long experience as to the easiest and most efficient means of securing the information needed for the management of business. They are a means toward an end and not an end in themselves.

Under this view, therefore, the bookkeeping course is the groundwork of commercial training. When so used the technique of the course, while a very necessary part of the training, is overshadowed by the function of the bookkeeping record. When so presented the bookkeeping course, as largely as any other in the high school curriculum, will, "Develop the mind, particularly the analytical and imaginative abilities", and so have large educational value, while serving also the minor aims of "teaching the art of bookkeeping," "Developing the fundamentals of accounting," and "Giving instruction concerning business practice."

Bookkeeping furnishes the practice field for all the reasoning qualities and abundant chance for drill in the habit of accuracy. Aside from the routine work of making entries, posting, etc., the problems involved in the preparation of an income and profit and loss statement, in opening and closing entries, in partnership settlements and the like,

it furnishes an excellent opportunity for developing the ability to associate ideas and to group facts, the habit of seeing part in the relation to the whole, the sense of system, judgment and accuracy. The study of such topics as depreciation and reserves affords excellent training in reason and judgment. The ability to make deductions is exercised in the analytical study of the accounting facts that pupils should be required to make all through the course.

The teacher must regard a thorough-going treatment of the subject as the important consideration and in accomplishing his desired purpose, he will then obtain as a by-product of his teaching, the trained minds of the pupils. Just as the by-product in an industry may possess greater value than the primary product, just so the mental qualities the pupil acquires may ultimately be of greater value to him than the knowledge he has gained of the subject.

While bookkeeping is the backbone of the commercial curriculum, it holds its place by virtue of the fact that it affords the best possible opportunity for giving the pupil an all-around knowledge of business and incidentally enables the teacher to develop in the student such business habits as punctuality, neatness, accuracy, industry and courtesy, to say nothing of fostering that all important character trait--initiative.

When too, through bookkeeping, the student can be taught the absolute necessity of attention to minor, but vital details; he can be made to assume responsibility, to execute orders

and to work consistently and patiently for a final result. The habit of sustained effort to one task is no mean asset to any worker, and to the young business employee, it is of vital importance.

The disciplinary value is not fully appreciated because of the amount of written work that is so much in evidence. Educators do not appreciate that this is merely the formal expression of results obtained by the very best application of the trained powers of the mind. Some of the mental qualities most desired in business are:

Ability to associate ideas and to group facts.

Habit of seeing part in relation to the whole.

Ability to note resemblances

Ability to make deductions.

Sense of system; classification and subordination

Judgment

conscious habits of attention, observation, memory.

Ability to assimilate ideas and facts.

Accuracy.

In the disciplinary objective, we have opportunity to develop powers of sustained attention and concentration; habits of orderliness in the solution of problems; to stimulate imagination; cultivate self-reliance; encourage intelligent initiative, and inculcate a love for fair principles and honest dealings.

IV. Teaching of Bookkeeping.

We should not overlook the fact however, that disciplinary training results from the quality of the teaching rather than from the subject matter itself. It is not necessary that the teacher have in mind a conscious aim in this direction.

There are two methods of instruction in bookkeeping, class instruction and individual instruction.

By "class method" is meant the daily assignment of lessons, a discussion involved in the assignment, and finally the working out of the transactions. Under this method, in order to get the best results, classes should be grouped according to intelligence. Certain definite plans should be made for each semester's work so that this work will fit the average more than the slower groups, but in each group, the teacher will be able to test his teaching by the educational, the vocational and the disciplinary aims. Daily class discussions and exercises with thorough drill to insure retention is better than "individual attention", because these discussions give the pupils opportunities to hear other pupils ideas and views, and so, broaden their scope of thinking.

This class method of instruction and recitation is commonly used and involves an enormous waste of time for both the fast and the slow members of a class, the former often having nothing to do, while the latter are carried along so rapidly that they get little or nothing out of the subject.

A. C. Barker in his book, "Methods of Teaching in High Schools," says, "Statistical measurements show that the brightest pupil

in a class of ordinary size can do, in the same amount of time, from two to five times as much as the slowest pupil."

Class recitation should involve a discussion of the bookkeeping principles followed by a series of questions and short problems which develop and apply the principles discussed. These questions should be primarily "thought" questions which develop the student's ability to analyze and interpret business statistics. Laboratory exercises and problems which illustrate and require the application of these principles should be assigned. These exercises should not be the long detailed "sets" with their many calculations and mass of mechanical operations.

The "individual method" allows each student to proceed as quickly as he can, the result being that perhaps no two students are working on the same principle at the same time, and very little class discussion of principles is possible. Thus, in most cases, the student is thrown upon his own resources and must rely on a study of text and illustrations, to find out how the transactions should be worked out, instead of being taught the principle and then being required to apply it. This method gives the unusual student the privilege of going faster than the rest of the class and sometimes results in his completing two terms work in one, while the average student and those below the average suffer by a lack of real teaching. Some teachers who believe this to be the proper method of instruction, believe that the slow student

gets a chance to write up by hard work what he lacks in mental ability.

Perhaps the most productive high-school teaching of bookkeeping will be to combine these two methods, class instruction and individual instruction, as far as possible. Have the pupils hold conferences in which they discuss their common problems, each contributing from his own experience and learning from that of others. The recording of these problems will give the student an opportunity to apply the principles discussed.

Based upon the principle of double-entry, a number of methods have been used in the presentation of the subject to pupils and in the development of bookkeeping texts; journal method, balance sheet method and the account method.

In the journal method much time is devoted to expounding the principles of debit and credit, and the dual nature of business transactions through the double entry principle. This is the old fashioned method and we will agree that a thorough understanding of the fundamental principles of debit and credit are the basis of all bookkeeping systems, and without a thorough understanding of these principles, the study of bookkeeping cannot progress far with satisfactory results.

The teachers who use this method believe it develops the student's ability to visualize the transaction and to analyze

and else try it. This analyzing and classifying transactions in the proper way, makes the introduction of the Cash Book, Sales Book and the Purchases Book, easy because the student has seen the principles of double entry displayed before him in the journal and has seen the effect on accounts by posting at the same time. He has visualized and analyzed, and thus can understand the new principles put before him and appreciate their main advantages. They can readily understand the need of subdivision, the advantage of specialization, the time saved in posting and how the double-entry principle of debit and credit is not destroyed in these specialized books, the real purpose for each and their relation to each other in the general makeup of the system.

Some claim that the journal has been replaced by the more highly developed books; yet, there is no book that can take the place of the journal, and it is the one book which a double entry set of books cannot do without. Turning to that most complicated of original entry books, the cash book with its many columns; it bears the direct principle of the simple two-column journal.

This journal method is characterized by the fact that both the debit and credit values concerned in a transaction are considered together and are indicated by writing the names of both ledger accounts in the entry which records the transaction. In other words, both values are studied in their relation to each other, and the record is made accordingly.

The balance sheet method of approach is based upon the balance sheet equation. Through the use of the equation of the balance sheet, $A - L = P$, (Assets less liabilities equals Proprietorship or Net Worth), bookkeeping can be tied up at once with mathematical principles with which the pupil is already familiar. The three elements of the equation—assets, liabilities and proprietorship—should usually be taught first in terms of the personal possessions and debts of the student. Once the idea of the terms of the equation is perceived, it is comparatively a simple matter to expand each of the three terms into the several titles most frequently used in business.

The concept of proprietorship is fundamental in all business, and the growth of proprietorship is the goal aimed at by all business management. Accordingly, the next topic in point of development is that of the comparative balance sheet, by means of which, with certain limitations, the growth in proprietorship during a given period of time can be determined. Observing the changes in proprietorship, the student desires to know the reason for such changes. This inquiring attitude of mind brings about the introduction at this point of the profit and loss statement, involving a study of the sources of income and the causes of expenses. Once the concept of income and expense is grasped, a detailed expansion of these general terms into the various titles used is comparatively simple.

The ledger. The material developed up to this point gives the student a pretty good picture of the goal of bookkeeping. It shows him some of the uses to which the record of business transactions is put. His interest is maintained because he is dealing with the summarized data used by business executives. After becoming familiar with these data it is natural for him to desire to know their sources. This leads, therefore, into the ledger, which should be taught merely as a method of recording the balance sheet equation. The changes which occur in the financial position of a business are brought about by the transactions entered into by the business, and record of each change made must be kept. These transactions bring about either increases or decreases in the basic elements of the balance sheet equation. The use of the account as a means of recording these changes in the basic elements should be made the goal of this part of the development of the subject. By showing the need for the account, that is, the purpose which it is to serve, the student will grasp much more easily its detailed technical form and its operation than if it is given to him as one of the arbitrary forms or tools used in bookkeeping. The function of the account as a means of recording the increases and decreases in assets, liabilities, and proprietorship brought about by the transactions in the business, is the thing to be emphasized and kept constantly before the student.

Every transaction used to illustrate the principles involved should be analyzed from the standpoint of the increases and decreases of the basic elements. This method constantly brings out the relationship of each transaction to the basic balance sheet equation. The student in this way is compelled to think always in terms of the balance sheet. Only after the student has acquired this habit of thought should the terms "debit" and "credit" be introduced. Thus, there is obviated the confusion resulting from the use of rules of debit and credit before the student understands their meaning and significance. Debits and credits come to mean only increases and decreases of the basic balance sheet elements or of the detailed titles into which these elements are subdivided.

Having mastered the method of making a complete record of business transactions on the ledger, the student should be required to correlate the ledger record with the financial statements. How these statements can be drawn up from the information furnished by the ledger is therefore the next step. This necessitates the development of the method of closing the ledger.

The Journal. The necessity for having in one place a complete record of each transaction should now be developed. This brings out the insufficiency of the ledger record as a sole record, and leads up to the need of another type of record. How the type of record made in the journal serves this need can then be developed. The student, knowing the

function which the journal serves and the necessity for that type of record, will have little trouble in securing an intelligent conception of journalizing. The process of building up the ledger record from the journal record is an easy step. Posting, with the necessity for cross-indexing the two records, is thus developed naturally.

An illustrative problem should be introduced to give a complete picture of the process of journalizing, posting, closing the ledger by journal entries, and drawing up of the balance sheet and profit and loss statement.

Special Journals. With a complete picture of the bookkeeping process as a background, the student is now ready to note some of the simpler refinements of this procedure. The use of special journals as a means of saving labor in making the record is the first refinement to be brought out. Accordingly, the standard special journals used in practically all mercantile businesses;— namely, the purchases, sales, cash receipts, cash disbursements, and general journals— should now be taken up. Only these standard forms should be considered at this time. The method of presentation of each of these topics is the same as before; that is, the need for the journal and the function to be performed by it should be explained first, before the technical operation of the journal is developed. Each one of the journals should be presented as a separate topic, after which their correlation, best illustrated by a short problem involving all of them, should be taken up.

It is expected that in the development, the fundamental principles of accounting, in accordance with the plan just outlined, each of these principles will be illustrated by separate problems and that they will be tied together and their inter-relations shown by means of one or problems involving the application of all of the principles.

In the account method, the account is used as the basis for the development of the principle of bookkeeping. The account is taught first because business transactions affect accounts; therefore, a knowledge of accounts is necessary. The student must know the meaning of accounts before he can intelligently understand the relation of transactions to them. The early teaching of bookkeeping in this method consists in training the student to analyze transactions and to determine the accounts affected. It is also essential that the relation of the books of entry to the ledger accounts affected by the transaction be well understood. If the meaning and results of accounts is understood, then it can readily be seen why transactions of the same kind are recorded in one book and the total is transferred to the ledger account. The development of the true nature and importance of an account is essential to record any business transaction and account keeping is merely another name for bookkeeping. From these accounts may be developed the terms debit and credit.

Since the account is the unit in bookkeeping, and every transaction of record affects accounts, pedagogically speaking,

a knowledge of the underlying principle of accounts is indispensable to the intelligent classification of transactions to their books-of-original-record or to the ledger accounts affected in the entry to be written up.

So graphically does the illustrated account represent the scheme of diametric debits and credits, that by this system, the theory of the equality of debits and credits necessary to the individual transaction, as well as to the composite ledger in the double entry system is no longer a vague, indefinite, mechanical process to the pupil, but becomes the actual test of accurate record keeping.

In presenting elementary bookkeeping by the account method, the general rules for debiting and crediting accounts, followed by such special rules as are applicable to the particular accounts chosen for preliminary drill should form the basis of discussion in early class work.

Blackboard diagrams in the form of ledger accounts help to illustrate in a vivid manner the intention of these rules and very frequently aid the pupil, not only in the classification of accounts, but in the determination of debit and credit in general.

All instruction should be based on the assumption that the primary purpose of account keeping (bookkeeping) is to provide information for the management, and after the special rules for the cash account, notes receivable and notes payable

accounts, and the proprietary account, as well as the purchases, sales and expense accounts have been mastered, and the terms, "debit and credit" have been clarified by the simple explanation that in bookkeeping vernacular, "debit" is only a synonym for left side while "credit" is a synonym for right side, the attention of the pupil should be guided to a practical application of the theory thus far presented.

Those in favor of the journal method of approach claim it to be the logical order as it is in line with the historical development of the subject. This stand has no logical, philosophic, historical or pedagogic foundation. The first bookkeeping was the ledger solely. This method may be said to be the bookkeeper's approach which emphasizes the recording of transactions. Some instructors of this method say the process of journalizing is the indicating of the accounts to be debited and credited in the recording of given transactions. If a pupil is indicating an account he must therefore consider the account. This study of accounts evolves the so-called journal method into the account method.

The balance sheet method of approach emphasizes the point of view of the business man. This method starts in with the final results which the business has achieved as shown by the balance sheet which is the summary report of a given period showing the proprietor how much he is worth.

This is the newer method of approach but is too difficult for the high-school pupil to grasp. When taught in the high school, the pupils first see what the balance sheet looks like and then in order to learn of its content, must study the accounts contained therein. This method, under these circumstances, is merely the study of accounts or the account method.

The balance sheet method has been used very successfully in the collegiate school of business with the more mature student.

It has lately been called to our attention that as a sort of curious commentary on the law of evolution which states that the life history of the race is epitomized in the development of the child to man's estate, the child-mind of an untutored man who attempts bookkeeping without instruction naturally hits upon the use of ledger-like accounts.

Therefore the account method is the best method of presenting bookkeeping to beginners. It plans a logical development of the correct principles of bookkeeping as laid down by recognized authorities.

V. Suggested Outline of Courses.

First Year Course.

General bookkeeping should not be attempted the first year because the pupil is too immature to grasp its intricacies. This year's course should ground the pupil in the fundamentals of business practice, develop business habits, and interest him in bookkeeping to which this elementary work directly leads.

The aims for this course should be:

1. To teach in an elementary way business practice and business principles. Definite instruction and practice in the fundamental business habits, such as courtesy, honesty, neatness, accuracy, promptness, loyalty, industry, attentiveness and persistency.
2. To review and drill on fundamentals of arithmetic.
3. To drill on penmanship, practicing on business forms to develop a good business handwriting.
4. To teach business procedure, forms and office routine.
5. To fit those who can not, or will not, continue their school course after this year, for immediate employment.

Outline of Content.

A. Penmanship.

Ten minutes at the start of the period each day

should be spent on drill and review of principles of good business writing. Speed, formation of letters and figures, endurance and legibility.

3. Business Arithmetic.

Two twenty-minute periods weekly on fundamentals of arithmetic, addition, subtraction, multiplication, division, fractions, percentage, interest and discount.

4. Business Forms and Business Training.

Record work, that will develop the requisite skill in handling specially ruled space, ruling lines, entering figures in properly ruled columns, etc. For this type of work, exercises may be used; Personal expense account of the pupil; records of school supplies; thrift records, and household records.

Business forms studied should include drafts, notes, checks, bills, invoices, statements, simple orders, check books, deposit slips, bank books and receipts.

Simple filing systems should be taught; the alphabetical, geographical, and numerical systems.

Students should understand about banking, the kinds of banks, how to open an account, make a deposit, write a check, and reconcile a statement.

The values, uses and charges of the telephone and telegrams in business should be taught to the pupils.

Pupils should get a clear idea of what is meant by order and system. They should be taught how to complete instructions, and the value of systematic habits.

They should be taught how to apply for positions, either by written applications or by personal interviews.

The pupil should also receive instructions regarding various duties of clerks: the mail clerk, file clerk, bill clerk, pay-roll clerk, shipping clerk, or time clerk.

At the close of the term a little time may be spent on the introduction of debit and credit principles through use of the cash account.

Second Year Course.

Since it is neither possible nor desirable to develop expert bookkeepers in this second year. It is practicable to reduce elementary bookkeeping to the level of the student and thereby start him on the road to expertness in the science of accounts, and to fit him for immediate usefulness in the clerical field in case economic pressure forces him to go to work before the advanced phases of the subject are reached. The pupil who has finished this year's work should be able to keep a simple set of books, or to assist with a more elaborate one. He should also be well qualified to give satisfaction in a clerical position.

A. The fundamental considerations should first be considered.

- Why books are kept
- What bookkeeping records show
- Opportunities for bookkeepers
- Value of bookkeeping.

B. Journalizing.

- Recording of business transactions
 - Form of entry
 - Necessity for clear and complete explanation
- Elements of a business transaction
- Debit and Credit.
- Indication of Accounts
- Accounts
 - Functions

3. Posting
 - Reason for posting
 - Classification of accounts
 - Ledger
 - Check posting
4. Trial Balance
 - Value
 - Uses
 - Analysis
5. Financial statements
 - Profit & Loss statement
 - Value
 - Procedure
 - Balance sheet
 - Value
 - Procedure
 - Equation
6. Closing entries
 - Reasons for closing the ledger
 - Explanation of closing entries
 - Closing and balancing accounts
7. Post-closing Trial Balance
 - Use
- II. Special Journals
 - Purpose, form, entries and posting of:
 - a. Cash Book
 - b. Sales Journal
 - c. Purchases Journal

This course should consist of short exercises that furnish drill material and class instruction rather than the long detailed set which might illustrate many principles. The student should understand the idea that bookkeeping is a study of principles as well as of practices.

Third Year Course.

This course should continue the practice and drill of the preceding year using more complex forms, books and transactions. Partnership and corporate forms of business

organization should be studied including distribution of profits. Different types of business should be learned, i. e., Retail, wholesale and commission business ventures. This course is planned to show the application of the principles of bookkeeping, to the records of these special lines of business; the development of the simple forms of books into special forms; and the classification and subdivision of accounts. The pupils would work out the so-called business practice "sets" using the business papers and thereby getting an understanding of the connection of business papers with bookkeeping. At the close of this course, the student should be able to assume the responsibility of work on a set of books.

A. Commission Set

- Controlling Accounts
- Subsidiary Ledgers
- Account Sales Register
- Business papers applicable to this set
- Entries in special columnar books
- Posting
- Financial Statements
 - Complex form
- Reconciliation of Subsidiary Ledgers
- Distribution of profits to partners
- Closing entries

B. Wholesale Dry Goods Set

- Controlling Accounts
- Self-Balancing Ledger
- Individual Price Lists
- Daily Posting
- Adjusting entries
- Financial Statements
 - Complex form
- Adjusted Trial Balance
- Closing the books.

- 3. Corporations
 - Form created
 - Advantages and Disadvantages
 - Books peculiar to a corporation
 - Stocks, Bonds, Stock Certificates, Dividends,
 - Change from partnership to corporation
 - Entries
 - Books
 - single set

Fourth Year Course

The fourth year course is for students who plan to enter business through the bookkeeping channel, and those who expect to enter the accounting field. This course should be devoted to developing ability to devise new methods to meet new conditions, and to stimulate an interest in the larger problems of business.

1. Single Entry
 - Books and Forms
 - Loose-leaf and Card Ledger systems
 - Entries
 - Financial Statements
2. Changing from single entry to double entry
 - Value
3. Manufacturing Set
 - Organization of Corporation
 - Voucher System
 - Books
 - Cost Records
 - Entries
 - Appreciation, Reserves, Sinking Funds
 - Adjusting entries
 - Dividends
 - Financial statements
 - Exhibits and schedules
4. Analyses of Financial Statements
 - Comparison
 - Calculation of Percentages
 - Ratio of Assets to Liabilities
 - Stock turnover

VI. Correlation of Bookkeeping With Other Business Subjects.

Some of the public high schools have found it well to introduce not only strictly technical courses; but also several which relate to business conditions but are not technical. In a survey taken in 1917 of 176 secondary schools, it was found that many of the schools had a four year course including technical and non-technical subjects in about the following groups: (a) those dealing with physical environment; (b) those dealing with the social environment of business; (c) other subjects. Under (b) are found industrial history, history of commerce, economics, commercial geography, commercial law, business English, salesmanship, and commercial organization. Few of these subjects are required. In these schools the work is being specialized in three groups; stenographer-secretarial; clerical-bookkeeper; and sales-clerk and store service.

As a school study, penmanship has its full share of educational value. It has utilitarian value. While this subject is taught in connection with the bookkeeping course very often, it is of value to any student. The writing period is dedicated to the improvement of all written work. The real test of the writing period is the way students write at other times. Too often, a teacher sees a student who is a good writer in a penmanship class, produce an English paper or a history paper which is carelessly written. No teacher

should accept papers which are poorly and carelessly written. She will receive as good work as she exacts, and as poor work as she will accept. A word of caution to pupils about the correlation of penmanship to English, history, and all other subjects would bring better results than we are getting at present.

It scarcely seems necessary to state that a pupil entering a bookkeeping class should know the fundamental processes of arithmetic yet we find it necessary to devote part of our bookkeeping periods to a review of these principles. To be sure these principles have been taught in the grades and some educators think it a waste of time to repeat them in high school. Many pupils entering high school know how to add, subtract, multiply or divide, but their memories are lazy on fractions, interest, discounts, percentages, etc. Therefore the fundamental processes of arithmetic must be reviewed and drilled for speed and accuracy. Too much emphasis should not be placed on speed, thereby sacrificing accuracy. Speed is a product of two factors, a master of the fundamental processes and an unhesitating knowledge of special applications. Accuracy is a product of these same two factors and two more; namely, a wholesome regard for the importance of accuracy and a habit of subjecting answers to proof. After a review of these fundamental processes, they should be applied to the commercial field.

It is not necessary that a bookkeeper should know about-

hand although it is an exact. There may be many occasions
such as conferences, memoranda or letters that can be
written in shorthand for economy of time and labor. In
business, however, it is expected that a woman be able to
know shorthand. Why this should be so, has never been
explained and in all probability she will never have an
opportunity to use it. A position which combines
bookkeeping and stenography is rare in these days of
organized business.

The typewriter is a recognized instrument of utility
by people in all vocations. The value that is attached to
skill in operation is the dominating motive that induces
a study of its use. Ability to operate a typewriter will
increase the value of any office worker. Habits of neatness,
orderliness, attention to details, rapidity of action, can be
cultivated through typewriting practice. No other commercial
subject appeals so strongly to the younger pupil and through
the interest that excited the pupil can be held in school
longer and thereby secure more thorough preparation for business.

Typewriting is of great importance to a bookkeeper
especially in writing out reports, financial statements, bills,
statements, letters, credit references and the like. In the
matter of financial statements, these may be said to be the
results of the bookkeeper's work. The Balance Sheet, shows the
proprietor for which he is worth and the Profit and Loss
Statement shows how much he has gained or lost during the period.

These final results should be presented to the proprietor or executive in the best possible way as they reflect the bookkeeper's work. These reports may be the only basis of knowledge the executive has on the bookkeeping department and the work done therein. The bookkeeper should typewrite these reports paying attention to neatness, form, accuracy, and arrangement, because having compiled these figures he understands better than a stenographer just where they should appear.

The teaching of salesmanship has come to be recognized as being valuable to the high school student. A significant fact is the interest and enthusiasm shown by the business world in the sales instruction offered in the secondary schools. This study develops the mind of the student so that he can first take command of himself. It is not merely the selling of merchandise that is studied in salesmanship, but such selling, or the selling of services whereby the student may offer to sell his own services as a bookkeeper. This is more personal salesmanship. Salesmanship in its broadest sense, is the ability to influence others to do that from which mutual benefit is derived. The bookkeeper must be interested in the sales department and personnel because of their close contact.

The Committee on Business Education appointed by the National Educational Association holds that English is the most fundamental, universal, and important subject of the commercial curriculum. It is the one subject without which

all the others will be of lessened value.

The Bookkeeper in English can aid the English teacher by demanding the fundamentals be observed: i.e., spelling, capitalization, syllabication, abbreviations and contractions, simple punctuation, a reasonable working vocabulary and handwriting. Also the student should be able to understand simple directions and to express himself intelligibly in spoken or written English.

The course in business English should not be substituted for the regular course in English. The freedom from the traditional college entrance requirements make it possible to select material and to study its adaptation to the specific needs of pupils pursuing this curriculum. Commercial pupils need the background of literature, and a study of the great inspirational writers of English and American literature is desirable. They should read articles on current events, many of which will be found in the high-grade magazines and leading weeklies.

Bookkeeping offers an excellent opportunity for training the logical faculty and for widening the horizon of the student in matters of every-day interest. In the study of bookkeeping, the pupil can scarcely avoid seeing that the commodity which is being sold and for which he renders an account, must have been produced either on the farm, in the forest, in the mine, or in the sea; thence transported to a point from where it is distributed for consumption or for manufacture. The process of raw materials from production

to construction must be well understood by the student because in his work as a bookkeeper, he must understand all these costs which determine selling price and profit.

The study of local industries where possibly the pupil will be employed, should be the beginning for both the bookkeeping teacher and the geography teacher. The pupil in his daily experience has observed the work done in his community and the problems which arise in connection with the work should be the basis for study of geographical and financial conditions.

Wherever possible, instruction in the classroom should be followed by office practice. The student who is studying bookkeeping should try to get an idea of a business as a whole. He may assist with the school office work and routine by making records in the books, filing, checking papers, taking attendance, writing out reports, answering the telephone, carrying messages, and if there are any extra curricular activities, he should work with the treasurers of these organizations, assisting them with their records and finances. In this course, the pupil can write out detailed reports on the typewriter which are an essential part of a bookkeeper's work; he should learn the office appliances that are found in the modern business office.

Commercial Law should be carefully studied by every bookkeeping student because the subject contains records of a large number of transactions that need extended explanation. To supplement the instruction in bookkeeping by direct reference

to problems in the law class witelless both subjects. The
sanctity of the law should be taught; an appeal to its power;
its historical development as one of our institutions should
be shown; a respect for its inviolability and a jealousy
for its honor should be excited; and when that is done, its
presence underneath our common relationships should be
traced. The bookkeeping student can see these relationships
and the need for law in his bookkeeping work. The book-
keeping student must have a knowledge of the legal principles
underlying the contractual relations involved in sales,
loans, interest and discount, credit, deeds, wills, negotiable
paper, employer's liability, legal-tender, stocks, and bonds.

VII. Cooperation of School with Business.

Our public high school systems are expanding vocational education. What is vocational education? Vocational education is any form of education whether given in a school or elsewhere, the purpose of which is to fit an individual to pursue effectively a recognized profitable employment whether pursued for wages or otherwise.

Webster's dictionary defines "vocation" as follows: "Destined or appropriate, calling, occupation, trade, business, profession."

Notice that under these two definitions all means by which people earn their living in an honorable manner form the field of vocational education.

Vocational education does not of necessity imply that the individual shall not also become essentially cultured and fundamentally moralized or be in any sense less of a good citizen. The birthplace of all culture is in the vocation. Culture, in its broadest aspects, is the highest realization of an individual's potentialities.

The choosing of a vocation and training for it involves five steps: (1) An analysis of the individual and of vocations; (2) A choice of a vocation, which need not be final except for longer or shorter periods of time; (3) Education for that vocation; (4) Placement at actual productive work in the vocation prepared for, and (5) supervision, adjustment and progress while working at the job.

John Brewer explains vocational-guidance as, "a systematic effort, based on knowledge of the occupations and on personal acquaintance with and study of the individual, to inform, advise or cooperate with a person in choosing, preparing for, entering upon, or taking progress in his occupation".

The high school student should be guided as far as possible throughout his high-school course. If he desires to change his course, it should be made possible to adapt the changes to suit his new needs. These changes should not be made easy so that the student becomes a creature of whims, drifting or dependence.

In the Boston Public Schools, a vocational counsellor interviews each senior in the commercial department and endeavors to place the student in a position that she is capable of filling. Her interests, abilities, ambitions, and her records are considered by the counsellor in the conference. This placement is to assist the student to enter upon the chosen occupation and the follow-up is to help the student make real progress in the chosen occupation. Also the vocational bureau endeavors to satisfy both employer and employee. In the follow-up work two main considerations which need to be kept in mind are: (1) to help the worker to overcome any serious difficulties in the application of his commercial education to the requirements

of his new position: (2) to assist the worker to see his possible lines of promotion and advise him relative to additional special educational courses which may be needed and where such course can be obtained.

The way in which to get some practical experience while education is going on is for the person pursuing a commercial curriculum to seek employment during the vacations, afternoons and on Saturdays. In some schools pupils obtain practical experience for a fixed term as clerical assistants in the school office or in a school office somewhere in the district. The pupil takes dictation, writes actual letters, answers the telephones, copies manuscripts, tabulates statistics, and prepares financial reports and the like.

Part-time education as being developed at the present time is based on the supposition that part of the regular working time of the youth is given over to organized class instruction. This class instruction may be "any subject given to promote the civic and vocational intelligence of such workers". Part-time instruction is "for workers, over fourteen years of age who have entered upon employment".

The young worker who leaves school at the age of fourteen or sixteen years is unskilled and the possibilities of advancement are exhausted at the end of a year, possibly two years. The chief reason for this leaving of school at such an early age is due to retardation in school work,

not to financial need at home. The young worker who leaves school because of financial needs is in the majority of cases, the student of the night school or extension classes. This is then the problem of the evening schools and extension classes, to make their program carry on the school work or meet the needs of this student.

The vocational viewpoint presupposes that the subject of bookkeeping has a close relation to the work of the business office and that the school training will assist the boy or girl in taking up readily the duties of a clerical position. The school must then adopt its courses to meet the needs of the business office. The development of "big business" has gradually eliminated the small establishment. The simple methods of keeping accounts, requiring not much more than the use of the daybook, journal and ledger, have been supplanted by elaborate systems of accounts and statistical bookkeeping with all kinds of modern labor-saving devices. The business office of today is highly specialized. The majority of the office force each has his special duties to perform and does not know the rest of the workings of the business. The mass of detail that must be attended to demands a subdivision of labor.

This condition is quite in contrast with that in the small business office in which one person frequently is charged not only with performing the variety of details incident to the transactions that occur in the course of a day's business. While the bookkeeper in charge of the small office needs to

have a fairly extensive knowledge of bookkeeping principles and practice and of business procedure, the clerk in the larger office has very little occasion to apply even the elementary principles of bookkeeping.

Therefore bookkeeping instruction must be changed to meet the requirements of the vocational needs of the boys and girls. More and more they are confronted with specialized work. They must then develop skill in doing the work of the single and specialized tasks. Exercises which afford drill in "working under pressure", is valuable to students because it is something that is demanded of all office workers.

Some years ago bookkeepers were in great demand. By the term "bookkeeper" was meant one who could take charge of a set of books, simple or complicated, as the case might be. Today by "bookkeeper" we usually mean a ledger or entry clerk. Business has grown to gigantic proportions and accounting systems are so sectionalized as to make it necessary for each one of the many "bookkeepers" to perform but a part of the whole task. His work has become increasingly a matter of routine, and offers a diminishingly attractive field for the young man who aspires to large business success.

From the high school student, business demands character, good business habits, initiative and thinking power. Some business men say that the most effective, the most powerful asset the young person entering business service can possess is a mastery of the English language. From the office boy to

the executive there is a daily demand for a greater mastery of the language in the successful conduct of some business transaction.

The business man neither expects nor desires that the high school graduate shall have had an undue degree of educational training for a particular business. The treasurer of the Stetson Shoe Company had this in mind when he declared: "We don't want boys taught to make shoes in school. We can teach them better here at the factory. We want them educated by the schools. We need adaptable men, intelligent men, interested men, who see that their welfare and our welfare are one welfare". What the business man desires of the high school graduate is that he shall have the will and the intelligence to keep on learning when he has gone to work, as well as the ability to apply to the particular vocation in which he is engaged, the general principles of what he has learned. He is expected to have some mental curiosity, so that he will study his job and find out everything he can about it and how he ought to do it, so that he will see and do things other than those he is told to do. With his training, he should have some vision and some ambition to be something more than a mere routine worker. Every business man can profit by new blood and new ideas.

The business man expects self-confidence of the high-school graduate but not over-confidence, the will and the capacity to work, obedience to authority, and solid character.

A young man or woman who works as hard when his or her employer is out of town as when he is in the office, who is on time all the time, who will not keep watching the clock, who will not begin to quit half an hour before the day's work is done, who is honest in everything is bound to be successful. Without sound character, there can be no worth success.

S U M M A R Y .

Bookkeeping is simply a specialized form of the art of keeping accounts. The pioneers of commerce formed this method of preserving a record of business.

The teaching of bookkeeping marked the beginning of commercial education and it has developed rapidly with the importance of trade. Bookkeeping was introduced into the high schools because pupils were migrating to the private commercial schools and the parents demanded that the public schools offer courses other than the cultural college course. The course as introduced was strictly a vocational one but now has been broadened so it has both educational and vocational value.

The educational objective strives to give the pupil a larger outlook in the field of business while the vocational objective is to train the pupil to accept a position of his own choosing. In the training of the pupil for business emphasis is placed on technique.

Bookkeeping properly taught, helps the student to apply general principles to keeping an account of business in such a way as to produce a systematic and economical record and one best adapted to the requirements of the particular business.

Bookkeeping with its matter-of-fact statements and columns of figures, is nevertheless a fruitful source for the use of imagination. What are these facts on the books but symbols which stand for the business and its progress? The imaginative person will at once construct workings,

progress, and present status, their form.

Bookkeeping furnishes the practice field for all the reasoning qualities and abundant chance for drill in the habit of accuracy. It develops the ability to reassociate ideas and to group facts, a sense of system and judgment. Mental qualities the pupil acquires may be of greater value to him than the knowledge he has gained of the subject.

The two methods of instruction, class and individual instruction are discussed. It is pointed out that while the class method wastes considerable time, the individual method throws the pupil on his own resources and he must study text and illustrations to get any information. This method is the best for the unusual student but the average student will fail for lack of teaching. After reviewing the advantages and disadvantages of these two methods perhaps the most productive teaching would be to combine the two methods as far as possible.

The method of approach in the teaching of bookkeeping is a widely discussed problem of today. There are many teachers who prefer the old-fashioned journal method of approach, others who prefer the account method, and others who prefer the balance sheet method, which is the newest method. After a study of the three methods it appears that the account method is the best for use in the high schools. The balance sheet method seems too advanced for pupils of high school age and the journal method is not as readily understood as the account method.

A bookkeeping course is presented which is constructed on

the basis of four years' work with four periods a week. This course outlined represents a standard type and may be deviated to suit the needs of the school.

During first year, penmanship, arithmetic, business forms and business papers are studied. The second year, the necessity for keeping books, the functions of accounts, journalizing, posting, taking a Trial Balance, and the making up of financial statements is considered. Short simple sets of books are kept and toward the end of the term, the special journals, in simple form, are introduced. The third and fourth year, the more advanced work in bookkeeping is taken up and is planned for those who are going to enter business through the bookkeeping channel, special attention being given to technique.

The subject of bookkeeping is closely related to Short-hand and Typewriting, Salesmanship, English, Geography, Office Practice, and Commercial Law.

Vocational-Guidance is still in its early stages of development. Much has been done in the schools to help the pupils and to advise them but there must be greater cooperation between business and the schools before vocational-guidance can be of much importance.

The public high schools have limited their instruction to full-time pupils. Rather than adapt the work to the necessities of the pupil who cannot attend on full-time, it apparently preferred to have him leave school altogether. It does seem as if these pupils who must go to work and who

must continue their education by attending continuation classes should be allowed to go back to the high school as a part-time student. It may possibly be the means of bringing him back as a full-time student.

The demands of business today are many. From the high-school graduate business demands willingness to work, interest, ability, character, intelligence and adaptability. Business does not demand skill in a particular line but a willingness to learn the business that skill may be required. The young employee should have the desire to get ahead and initiative which will lift him above the dull dead routine.

Bibliography.

- Jones, Conner T. - - Teaching Business Subjects in the Secondary Schools--1924--Ronald Press Co.
- Northolmead, W. A. - Fundamental Ideas in the Teaching of Bookkeeping, -1916--State Dept. of Education, New York.
- Shawson, E. V. - - Commercial Education in the Public Secondary Schools, - 1915--World Book Co.
- Wheeler, G. B. - - Commercial Research--1919--The Macmillan Co.
- Wood, E. H. - - Twenty-five Years of American Education- 1924-- The Macmillan Co.
- Hayne, Arthur H. - Administration of Vocational Education-1924- McGraw Hill Book Co.
- Wyon, Everett J. - Education for Business- 1922- University of Chicago.
- Robison, Emily - Vocational Education- 1921- 2nd & Revised Edition--G. B. Wilson Co.
- Merwin, Gloyd A. - Commercial Education in the Secondary Schools- G. B. Wilson Co., 1922
- Kahn and Elsin - - Principles and Methods in Commercial Education- 1924-- The Macmillan Co.
- Englis, Alexander - Principles of Secondary Education -1913-- Houghton Mifflin Co.
- Colvin, Stephen S. - An Introduction to High School Teaching--1923 The Macmillan Co.
- Barber, Samuel G. - Methods of Teaching in High Schools - 1915- Ginn Co.
- Nichols, Frederick W. Junior Business Training- 1923- American Book Co.
- Linney, Harry A. - Accounting Principles and Bookkeeping Methods, 1924- Henry Holt & Co.- Vol. I.
- Wells, Joseph J. - Bookkeeping and Accounting-1918-G. Appleton & Co.
- McCurry, Carl E. - Manual for Teachers of Bookkeeping- - 1923-- Ginn Co.

Bibliography.

- Mittenhouse, C. E. - New Modern Illustrative Bookkeeping-1913-
Introductory and Advanced Courses, (2 Vols.)
American Book Co.
- Nester, Roy B. - - Accounting Theory and Practice- 1913- Vols. I & II
The Ronald Press Co.
- Boston School Document 119- Report of Survey on Intermediate Schools
and Classes- 1920
- Boston's Municipal League of Boston-- Handbook of Opportunities in
Vocational Training in Boston- 1915
- Rever, John B. - - Vocational-Guidance
- Salience West Magazine- 1924-Vols. V & VI. South-Western Publishing Co
- U. S. Bureau of Education- Business Education in Secondary Schools,
" Bulletin, 1919, 55
" Vocational Education, Bulletin 1919, 33
" Business Training and Commercial Education,
" Bulletin, 1921, 43
" Commercial Education- School Opportunities
and Business Needs, 1923, Leaflet 7
" Commercial Occupations- 1924, Leaflet 9
" Coordination of Business Preparation and
" Placement, - 1924- Leaflet 10
" Part-Time Education of Various Types,
" Bulletin, 1921 35

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Student's name: Eleanor M. Ryan

Degree, when and where conferred: B. S. A., Boston University, 1925.

Subject of the Thesis: Content and Methods of Teaching Bookkeeping in the Public High Schools.

List of courses that the candidate has taken, or in which he is enrolled, in the field of the subject proposed for the thesis.

Accounting, Elementary	Income Taxes
" Intermediate	Income Tax Accounting
" Advanced	Accounting Problems
Cost Accounting	Mathematics of Accounting
Methods of Teaching Bookkeeping	

Additional courses that the candidate should take:

Additional prescribed reading:

I approve the above subject for a thesis for the M. E. degree in my department, and will supervise the work of the candidate in that subject.

.....
A. J. Lucy
.....
Instructor

Dated March 13, 1926.

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FIRST SECOND READER'S REPORT

Author of Thesis Eleanor Marie Ryan

Title of Paper Content & Methods of Teaching Book-keeping in

Critical Estimate of First Draft Final Form

This paper shows evidence of considerable study and research. The student has a good grasp of the subject. The treatment is general rather than specific and ^{should} could be expected of a young teacher lacking in classroom experience in teaching. The portions to which exceptions were taken in the original draft have been rewritten. I recommend that it be accepted.

First Second Reader's Signature

H. L. Perry

Date May 28 1926

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