COMPARING JOB TASKS OF ACCOUNTING STUDENTS AT BOZEMAN SENIOR HIGH AND JOB TASKS OF ENTRY-LEVEL ACCOUNTING/BOOKKEEPING WORKERS

by

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CHAPTER I

INTRODUCTION

Since the early 1950's, there has been a tremendous amount of change in the way financial records are kept in businesses and industries today. The large growth of information now handled by businesses and industries has required a change in the way financial records are kept. Manual techniques that were used to record financial information have now been replaced by electronic processing machines. Because of this growth in information handled by businesses, there has been a corresponding increase in the number of workers needed in accounting and bookkeeping jobs.

According to the U.S. Bureau of Labor Statistics (1973: 19 & 39) the percentage of accounting/bookkeeping workers grew from 12.8 percent of all the economically active civilian population in 1950, to 17.4 percent by 1970, and is projected to rise to 19.4 percent by 1985. With this growth, new skills and concepts required by these changes are numerous and complicated.

With all the changes that have occurred in business offices to handle this increase in financial information, there have been very few changes made in the conventional high school accounting/bookkeeping courses to keep pace with the requirements of the business world. Herbert Tonne (1970:108) spoke of the lack of changes made in

conventional high school accounting/bookkeeping courses when he said:

> We engage in tinkering with small additions here, a minimization of some subject matter there, but basically it is the same course we taught 75 years ago with a veneer of modernization.

If a major goal in business education is to prepare students for employment in business, then the above comments indicate that high school accounting and bookkeeping classes are not meeting the instructional requirements necessary for gainful employment in beginning accounting and bookkeeping occupations.

Statement of the Problem

This research study was undertaken to determine whether prevailing accounting courses in Bozeman Senior High School have been preparing students to meet the requirements of actual job tasks performed by beginning accounting and bookkeeping workers.

To be able to answer the problem, this study was designed to answer the following questions:

1. What job tasks are included in Bozeman Senior High School accounting courses?
2. What job tasks are being performed by the entry-level accounting and bookkeeping employee?
3. What components of Bozeman Senior High School accounting courses represent activities engaged in by entry-level employees?
4. To what extent do Bozeman Senior High School accounting courses prioritize these activities engaged in by entry-level employees?

Need for Study

This study is important because one of the most frequently voiced objections to business education is that there is a great deal of difference between what is taught in the classroom and what is actually being done in the business world. With the changing nature of accounting and bookkeeping occupations has come much needed discussion about appropriate objectives for the accounting and bookkeeping courses in high school. Burkley (1972:16) stated that:

> We who teach accounting and bookkeeping have an obligation both to our students and their future employers to teach proficiently those tasks and duties performed by accounting and bookkeeping workers in order that the students will enter the labor market well equipped with a marketable skill.

Donnel (1976:2813) states that:

> Additional research should be done in the area of job related skills so that the student has all the basic knowledge the employer expects and the business teacher knows what to include in the classes.

The purpose of this study was to show what the actual job tasks of entry-level accounting and bookkeeping workers are in Bozeman, Montana, and what job tasks are included in the Bozeman Senior High School accounting texts. By comparing entry-level job tasks and accounting/bookkeeping job task offerings, input will be received providing verification of the current high school accounting and bookkeeping courses or will show where changes in the courses are needed.

Limitations of Study

An assumption was made that the conventional high school accounting and bookkeeping courses are determined by the textbooks used in class.

This study considered entry-level accounting/bookkeeping jobs as it applied only to businesses in Bozeman, Montana.

The study was limited to entry-level positions in accounting and bookkeeping; no clerical or other related area positions were examined.

This study was further limited to the responses of the individuals who returned a completed questionnaire, and the results were applicable only to the population surveyed.

Definition of Terms

The following definition of terms are presented to assist the reader.

1. Beginning Accounting and Bookkeeping Worker: A person employed in a position that requires maintenance of financial records that does not require training above the high school level.

2. Conventional High School Accounting and Bookkeeping Courses: A program that combines the vocational objectives of training bookkeepers with the personal objectives of interpreting, preparing and/or using business information and records, and includes the following courses:

   > Accounting and Bookkeeping - emphasizes the principles of double-entry bookkeeping and mastery of the steps of the accounting cycle, prepares students to analyze transactions, record in journals, post to ledger and prepare and interpret statements. (Reap, 1976:40)

3. Entry-level Position: A position that the employer may offer to nominally experienced or nominally educated persons.

4. Job Task: A certain unit of work performed by an individual that has a precise beginning and ending.

5. Prioritize: Precedence in order, rank.

Organization of Study

This research project is organized into five chapters. Chapter I is the statement of the problem, the need for the study, the limitations of the study, and the definition of terms.

Chapter II is a review of literature which is broken into three distinct sections, as follows:

Section I - Emphasizes related articles directed towards providing background information about requirements and instructional needs for entry-level accounting and bookkeeping workers.

Section II - Explores research studies conducted on the national level regarding entry-level requirements and opportunities for accounting and bookkeeping students.

Section III - Explores a research study to determine the job tasks included in the accounting text used by Bozeman Senior High School.

Chapter III is a review of the procedures used in completing this project. This chapter includes the null hypothesis, the sources of data, design of the survey instrument, administration of the survey instrument, and the analysis of data.

Chapter IV presents the results of the questionnaire's findings and analyzes them against the job tasks of the accounting text at Bozeman Senior High School that was presented in Chapter II.

Chapter V summarizes the study. It also includes conclusions and recommendations for this research project.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The purpose of this chapter was to review literature published in the area of high school accounting/bookkeeping courses meeting the requirements of actual job tasks performed by beginning accounting and bookkeeping workers. Studies and literature relevant to the writer's study were examined and some of the more significant findings and conclusions are presented in this chapter. The chapter is divided into three sections.

Section I is devoted to examining related literature directed towards providing background information about requirements and instructional needs for entry-level accounting and bookkeeping workers.

Section II explores relevant research studies conducted on the national level to determine entry-level requirements and opportunities for accounting/bookkeeping students.

Section III explores a research study to determine the job tasks included in the accounting text used by Bozeman Senior High School.

The conclusion of the chapter will be a summary of the three sections presented in the chapter.

Section I

Section I is devoted to examining related literature directed towards providing background information about requirements and instructional needs for entry-level accounting and bookkeeping workers.

A major goal in business education is to prepare students for employment in business. Many studies of high school accounting and bookkeeping courses have been conducted that indicate that the units of instruction taught in these courses may have little relationship to job tasks necessary to gain employment in beginning accounting and bookkeeping occupations.

One of the most frequently voiced objections to business education is that there is a great deal of difference between what is taught in the classroom and what is actually being done in the business world. Many high school graduates complain that they spent many hours performing tasks in the classroom that are never or are very seldom performed on the job. Supervisors complain that prospective workers come from the classroom and have not been taught the routine duties required for performance of their jobs.

These complaints seem to be in reference to almost all phases of business education, but perhaps there is no one area in which criticisms are more frequently expressed than in accounting and bookkeeping courses.

Accounting and bookkeeping occupations have experienced very rapid and dynamic changes in the past decade. Tasks and duties

performed only a few years ago by accounting and bookkeeping workers are no longer performed by these people, but new responsibilities have taken the place of those that have been discontinued. According to Buckley (1972:16),

> We who teach accounting and bookkeeping have an obligation both to our students and their future employers to teach proficiently those tasks and duties performed by accounting and bookkeeping workers in order that the students will enter the labor market well equipped with a marketable skill.

With the changing nature of accounting and bookkeeping occupations, there has been considerable discussion about the objectives for accounting and bookkeeping courses in high schools. The original objective of accounting and bookkeeping education was to prepare students for vocational jobs. In early business, the bookkeeper was the only person with some business experience and background. Because of this, he was in charge of maintaining the records and books for the business. The bookkeeper was required to know everything from opening to closing entries.

With the many business occupational changes that occurred in the 1950's, many of these changes effected the way financial records were kept, thus the expressed objectives of accounting and bookkeeping education were also changed. As professional accounting required more than just a high school education, the traditional bookkeepers were required to perform fewer duties in the accounting cycle. With these changes, accounting/bookkeeping education at the high school level started to reflect objectives of personal and social use, as well as the vocational preparation for bookkeepers.

With the introduction of computers, the modern day bookkeeper may not perform any of the traditional duties of the double-entry accounting cycle. But, today's modern day worker may be called a bookkeeper or accountant even though they only record data on coding sheets for computer analysis.

What then is a bookkeeper? In the 1977 Dictionary of Occupational Titles, the accounting occupational clusters were divided into two major segments, professional and clerical.

> Within the professional categories, are the auditor, chief accountant, and five categories of accountants (Accountant I to Accountant V) with Accountant I being the lowest level. Professional accountants generally hold a baccalaureate degree and have accounting experience.
>
> The clerical segment of the accounting cluster includes four classifications, the accounting clerk I, accounting clerk II, the bookkeeper, and those engaged in related occupations. Related occupations include cashiers, tellers, data processing operators, billing machine operators, bookkeeping machine operators and computing and accounting recording operators. (Reap 1980:16)

Training in high school can include job entry level preparation in this clerical segment of the accounting cluster. It is obvious that if a bookkeeper were to know all steps in the accounting cycle it would be of advantage, but not necessary to perform the above entry-level positions. Because of this, many authorities feel that the accounting/bookkeeping education in high school does not help a high school graduate attain an entry-level accounting position.

Business educators are claiming that high school accounting/ bookkeeping courses should be taught with an overwhelming emphasis on specialized procedures performed by entry-level employees. These

entry-level positions would entail the teaching of routine procedures such as journalizing and posting, and the occasional preparation of a trial balance. According to Smiley (1981:38),

> High school graduates do not prepare financial statements or become involved with the latter steps of the accounting cycle, the contention is made that high school programs should not go beyond the trial balance step in developing job competencies.

In a related study, Lanham (1973:16) found that what is taught in accounting classes in the high school was not required knowledge for job duties of beginning bookkeepers. The evidence produced from the Lanham study indicates that double-entry accounting taught in high school is not needed in entry-level accounting/bookkeeping positions.

With the opportunities for bookkeepers expected to grow in the coming years, and with presently more than 95,000 annual job openings for bookkeeping and accounting workers, there is a continuing need for accounting and bookkeeping workers. But with automation and the suspicion of out-of-date courses in accounting and bookkeeping, what training should the high school provide for prospective entry-level accounting and bookkeeping workers?

The business educator must now look to the community to see what students need to know when they start work in entry-level accounting/bookkeeping positions. Occupational analysis of the job tasks of beginning accounting and bookkeeping workers is needed.

Section II

Section II explores relevant research studies conducted on the national level to determine entry-level requirements and opportunities for accounting/bookkeeping students.

Parsche Study, (1965)

In a study of 99 accountants in Bullevue, Iowa, Parsche found the following information concerning accounting/bookkeeping courses in relation to entry-level positions for high school graduates:

1. Seldom would a person just out of high school be added to an accounting department. He might start, for instance, in a file room, mail room, or some department where he would become familiar with the company.

2. Even though the general office help in the accounting department has nothing to do with the general ledger work or financial statements, it gives them a better idea of the particular work they are doing.

3. In a computerized business, the bookkeeping skills are not necessary since the data processing department has taken over so many functions of it.

4. The accounting department is staffed by college graduates, and those with lower educational training are accepted for clerical and secretarial jobs.

Dudley Study, (1965)

In an exhaustive study on digital computers and the need for them in businesses today, Dudley found that:

1. Schools of business must be more willing to realign and adjust their programs in light of the needs of management brought on by the computer revolution.

2. A first course in computer theory, concepts, and practical applications should be mandatory for all beginning business students.

Burton Study, (1967)

The purpose of this study was to collect information about the qualifications and needs of young people seeking office employment in Connecticut. Questionnaires were mailed to every fifth Connecticut Company listed in the Dun and Bradstreet reference book, as well as other nonlisted Connecticut businesses whose names were supplied by the Connecticut State Employment Service.

Of the 1,224 firms contacted, 824 responded. Burton collected information on about 140 duties performed by office workers. Of the 140 duties, 33 could be specifically applied to accounting and bookkeeping. Burton found that many firms hired high school graduates for nearly all beginning office positions. About half of these beginning office workers took business courses in high school, and only a third felt that they prepared them for the beginning office job.

Spanswick Study, (1967)

The purpose of this study was to identify a number of manual bookkeeping jobs for which experienced and non-experienced employees with a one-year course in high school bookkeeping were recently employed. The study also examined the kind of activities performed by such employees in relation to their one-year course in bookkeeping, and examined the reactions of bookkeeping employees and employers to a one-year course in high school bookkeeping as preparation for a bookkeeping job.

Using questionnaires to determine the bookkeeping preparation of a one-year course in high school bookkeeping, and through an investigation of the Help Wanted sections of newspapers serving Chicago and New York City to find bookkeeping jobs available to people whose formal instruction in bookkeeping and accounting had been limited to one year, Spanswick came to the following conclusions:

1. A majority of firms advertising bookkeeping jobs were not willing to hire persons with one year of high school bookkeeping unless those persons had experience in bookkeeping work.

2. There are very few opportunities for a person with only one year of high school bookkeeping and no job experience to secure a bookkeeping job in the Chicago or New York City areas immediately upon graduation from high school.

3. A person whose formal instruction in bookkeeping and accounting had not exceeded one year in high school, who had been successful in finding a manual bookkeeping job was expected to be able to operate a typewriter, ten-key adding machine, full-key adding machine and possibly a rotary calculator.

4. When data processing equipment was used by some firms, the result was the elimination of some manual bookkeeping activity.

5. Employers were not convinced that a one-year high school accounting/bookkeeping course was effective preparation for a manual bookkeeping job and commented that experiences in a one-year course in high school bookkeeping were not realistic.

6. Experienced workers who have taken a one-year course in high school bookkeeping stated that their experience, rather than the bookkeeping course, prepared them to handle the bookkeeping activities most frequently performed in their jobs.

Stelter Study, (1968)

This study sought to determine the duties now performed by bookkeepers and accountants in rural businesses. Questionnaires were received from 111 employees and 154 bookkeepers in rural cities in Minnesota. The most significant finding of this study was that formal education in bookkeeping or accounting is helpful, but not necessary to perform most of the duties of a bookkeeper. Only one third of the employers in rural Minnesota firms stated that one year of high school bookkeeping was necessary for employment in their firms.

Luxner Study, (1970)

With the elimination of more routine bookkeeping tasks by technological innovations, Luxner's study was to determine the relationships between certain factors associated with the employability of vocational bookkeeping students and their success in obtaining initial employment, utilizing their vocational training.

In the research design, a follow-up study was done of 107 vocational bookkeeping students who graduated from eight high schools in the city of Pittsburgh, Pennsylvania. The follow-up occurred four months after graduation and a 100 percent response was achieved.

Her conclusions were:

1. Only 5.6 percent of vocational bookkeeping graduates actually secured entry-level employment in positions that were classified as bookkeeping or related jobs.

2. The graduates concurred that in addition to possessing bookkeeping skills, typing, adding machine operation, and filing were necessary in order to secure bookkeeping employment.

3. As a vocational subject, advanced bookkeeping, taught in the traditional method which includes the making of complicated entries, such as closing and adjusting entries, is indefensible. The subject should be eliminated or greatly modified.

Gosman Study, (1970)

The Gosman Study was part of a national allied health project designed to determine appropriate content for health occupations curricula. A sample of 48 hospitals and care facilities was used. Questionnaires were sent to these institutions to determine and analyze job tasks performed by medical personnel.

Gosman collected data on about 249 job tasks that were performed within the medical records department. These tasks were grouped into 17 functions and by 6 occupational titles which most closely resembled a bookkeeper or accounting worker. Analysis of the data having implications for accounting and bookkeeping training found that the tasks performed by medical records clerks require no specific training in accounting or bookkeeping.

Huffman Study, (1971)

Also, in a study done by Huffman of 65 supervisors of business education, some weaknesses in vocational education of bookkeepers and related workers were found. The study indicates that the aims of bookkeeping and accounting show no relation to automatic data processing, and must be clarified and updated to include this area.

Since a course in bookkeeping and accounting is not likely to prepare any student to be a bookkeeper, the course is useful for orientation and familiarization purposes.

Lanham Study, (1973)

Lanham completed a study for the New Office and Business Education Learning System (NOBELS) which is a long-range curriculum renewal project. NOBELS' overall function is to assess and modify learning programs whose purposes were preparation for office jobs. A systematic inventory of office tasks performed in current office occupations was the basis for assessment and modification of learning programs. By personal interview of 1253 office workers and their supervisors, job tasks performed were identified, classified and analyzed. The NOBELS study found that the job tasks of beginning bookkeepers require little application of the principles of accounting or double-entry bookkeeping as taught in high schools. The study also revealed that because of inadequate secondary school accounting/bookkeeping courses for preparing students to perform bookkeeping tasks, most training has been on-the-job. The study concluded that high school accounting/bookkeeping courses must provide instruction of behaviors that will enable a beginning worker to gain knowledge and skills necessary to meet requirements of a specific job or specific department where the beginning worker may later find himself.

West Study, (1973)

The West study provides a basis for updating high school courses in recordkeeping and bookkeeping. West sought answers to the questions about similarities between high school accounting courses

and job activities, and about the advantage of formal school training for advancement in bookkeeping employment.

Two groups, bookkeeping employees and accounting supervisors, and two methods, questionnaires and interviews, were used in this study. Questionnaire responses were secured from 597 employees and interview data was collected from 16 establishments.

West findings indicated that:

1. Computerization has reduced the need to understand bookkeeping concepts.

2. There was relative infrequency of prior school training as a requirement for securing an entry-level accounting/bookkeeping position.

3. The job duties and job responsibility levels of those with no school training in bookkeeping are indistinguishable from those with only high school training.

4. Job responsibility and advancement depend heavily on work experience, secondarily on post-high school education, and not discernibly on high school bookkeeping training.

5. Journal and ledger work is predominantly carried out by experienced, not novice, employees, and high school instruction beyond the trial balance is totally unjustifiable.

Reap Study, (1976)

In an attempt to identify the difference between work and training programs for the beginning accounting/bookkeeping workers and high school accounting/bookkeeping courses the worker graduated under, Reap did the following study. She determined the job tasks performed by entry-level accounting/bookkeeping workers by a comprehensive search of literature, using 16 studies which contained specific information about the job tasks of the beginning accounting

and bookkeeping worker. She used Berelson's and Holsti's methods of content analysis to compile a list of job tasks included in the accounting/bookkeeping text. Then, a rank correlation of statistics and comparisons were applied to the two lists to determine if high school accounting/bookkeeping courses included and prioritized the job tasks of the beginning accounting/bookkeeping worker. Her conclusions based on the findings were:

1. The job tasks of beginning accounting and bookkeeping workers require little knowledge of how the principles of debit and credit are used.

2. Job tasks in the electronic data processing category were the most frequently performed of all the job tasks of the beginning worker.

3. Few job tasks required an understanding of the accounting cycle past the trial balance.

4. Job tasks of the beginning worker dealt more with the handling and preparation of business papers and forms than with the accounting entries for these documents.

5. Tasks covered in high school accounting and bookkeeping courses have no significant relationship to the job tasks for employment in beginning accounting/bookkeeping occupations.

Donnel Study, (1976)

Studies have indicated that high school bookkeeping/accounting courses and the skills required by entry-level employees differ. This study was done to determine if the job tasks completed in bookkeeping/accounting courses were the same as entry-level high school graduates perform in bookkeeping/accounting positions.

A survey was used to gather data from bookkeeping/accounting teachers in Wyoming public schools and employers of entry-level

bookkeeping/accounting graduates in 64 communities in Wyoming. The survey consisted of three surveyed sections, skills, knowledge and attitude of beginning accounting/bookkeeping workers, and used the findings to tell if high school accounting/bookkeeping teachers and employers thought that these three sections were important requirements for beginning accounting/bookkeeping workers.

Based on the findings of the survey and evidence from pertinent literature, the following conclusions were drawn:

1. All material taught in bookkeeping/accounting courses is not used on the job by entry-level high school graduates.
2. The demand for bookkeeping/accounting entry-level employees is small.
3. There should be a closer correlation between the job skills that a student learns on the job and those that a student learns prior to job employment.

Section III

To identify the job tasks included in Bozeman Senior High School accounting courses, which uses the South-Western Publishing Co., Century 21 Accounting First-Year Course textbook, 1st edition by Boynton/Swanson/Carlson/Forkner, a study by Reap was reviewed.

Reap Study, (1976)

To analyze the job tasks included in the Century 21 Accounting First-Year Course textbook, a three-step procedure was used by Reap:

Step 1. Define the universe of content to be analyzed.

Step 2. Partition the universe into categories.

Step 3. Quantify job tasks through counting, ranking, or rating.

Step 1 has been completed through the selection of the Century 21 Accounting First-Year Course textbook for use in the accounting instruction at Bozeman Senior High School.

Step 2 consisted of preparing a list of ten categories to be used for sorting job tasks included in the Century 21 textbook. Each category represents the accounting/bookkeeping activities associated with the content of that category. The ten categories were:

Category 1 - Sales and Accounts Receivable:
Includes sales journal, accounts receivable, ledger, controlling accounts receivable, statements of accounts receivable, sales taxes.

Category 2 - Purchases and Accounts Payable:
Includes voucher register, purchase journal, accounts payable ledger, controlling accounts payable, schedule of accounts payable, purchase invoices.

Category 3 - Cash Receipts and Cash Disbursements:
Includes cash journals, cash register, receiving or disbursing cash or checks, entries for discounting notes checkbook, bank statement reconciliation, petty cash, proving cash.

Category 4 - Payroll:
Includes all calculations, records, tax returns and reports related to payroll.

Category 5 - Inventories:
Includes all inventory records and reports.

Category 6 - Electronic Data Processing:
Includes coding, comparing, correcting, processing and programming.

Category 7 - General Journal and General Ledger:
Includes all general journal entries, posting general ledger, adjusting, closing, chart of accounts, balancing.

Category 8 - Financial Statements:
Includes trial balance, worksheet, balance sheet, income statement, statement of capital, tax returns.

Category 9 - Miscellaneous Specific Tasks:
Includes recording, combination journal entries, depreciation, interest on notes, calculating gains or losses on fixed assets, calculating partnership distribution.

Category 10 - Miscellaneous General Tasks:
Includes nature of business, type of business organization, accounting cycle. (Reap, 1976:126-129)

Step 3 consisted of analyzing and quantifying the content of the Century 21 Accounting First-Year Course text. The textbook was analyzed page by page. By measuring the amount of space, in inches, assigned to each of the job tasks represented in the textbook, the volume of space for each job task was then accumulated and totalled, and the list of job tasks was ranked with the job task having the largest volume of space in the textbook ranked number 1 and the job task having the least volume of space ranked last. The analysis of the Century 21 Accounting First-Year Course text had these features:

1. Only numbered text pages were analyzed. The table of contents and index were omitted.

2. Illustrations were analyzed except where noted otherwise.

3. The text used type varying from 15 to 19 characters per linear inch and occupying 6 lines per vertical inch.

4. The length of textbook page was 8 inches.

5. Much of the textbook content lacked specificity. Analysis of the content followed the following list of choices in descending order:

   a. content covering a specific task
   b. content covering a specific category
   c. content falling into category 9--miscellaneous specific tasks not included in other categories
   d. content falling into category 10--general, non-task-specific information

The analysis of the Century 21 Accounting First-Year Course text had these special features:

1. A total of 701 pages were analyzed. The book had a total of 736 pages, plus 10 unnumbered transvision pages which contained job task information. A total of 45 pages were not analyzed, 42 of which referred to sets of projects, and 3 which were illustrations which could not be analyzed.

2. The width of the printed line on each page was 4.5 inches wide. Top and bottom margins varied considerably from a total of .5 to .875 inches. Side margins varied from 1-2 inches with many illustrations and notes extending into the side margins. Considering these variations, the number of square inches on each page was considered to be 36 square inches (4.5 square inches by 8 inches). The total 701 pages by 36 square inches = 25,236 square inches of text content minus 212.38 square inches of unused space left blank at the end of chapters, or a final total of 25,023.62 square inches of space in this textbook.

3. The textbook was marked and measured for each job task and accumulated by inches on worksheets. The accumulation of inches for each job task was totaled. The accumulation of inches for each category was also totaled.

The following table represents Reap's ranked list of the job tasks included in Century 21 Accounting First-Year Course text. The job tasks have been listed and ranked according to the amount of space allotted in the text for each job task.

Table I

Job Tasks Included in Century 21 Accounting First Year Course Text

RANK	TOTAL SQUARE INCHES FOR JOB TASK*	% OF FINAL TOTAL OF SQUARE INCHES COVERED BY ALL 34 JOB TASKS*	JOB TASK COMPLETED BY WORKER
1	864.00	12.75	prepares payroll
2	520.86	7.87	records payments receivable
3	518.03	7.64	verifies total of cancelled checks, computer tapes and teller's balance sheets
4	462.25	6.82	prepares disbursements of funds
5	433.87	6.40	receives payments over the counter
6	421.87	6.23	writes computer programs
7	383.50	5.66	operates optical scanning equipment to convert printed data into punched cards
8	375.75	5.55	records accounts receivable from such documents as salesmen's orders and invoices

Table I - con't.

RANK	TOTAL SQUARE INCHES FOR JOB TASK*	% OF FINAL TOTAL OF SQUARE INCHES COVERED BY ALL 34 JOB TASKS*	JOB TASK COMPLETED BY WORKER
9	338.62	5.00	records accounts payable
10	285.75	4.22	prepares billing of sales
11	271.12	4.00	codes forms such as purchase orders, invoices, and applications for keypunching.
12	362.13	3.87	prepares reconciliation of bank statements and accounts
13	212.60	3.14	prepares disbursements of petty cash funds
14	193.86	2.86	prepares payments from documents such as invoices, bills, and vouchers
15	150.75	2.23	computes accounts payable from source documents
16	139.50	2.06	operates electronic computer and peripheral equipment
17	132.75	1.96	operates unit-record equipment such as the sorter, reproducer, collator, and interpreter

Table I - con't.

RANK	TOTAL SQUARE INCHES FOR JOB TASK*	% OF FINAL TOTAL OF SQUARE INCHES COVERED BY ALL 34 JOB TASKS*	JOB TASK COMPLETED BY WORKER
18	95.62	1.41	compiles payroll reports from payroll sheets, time sheets, job cards, and printouts
19	93.38	1.38	punches cards from source documents such as invoices, orders, time cards, and instructions
20	85.50	1.26	records payroll information
21	76.50	1.13	issues claims or adjustments against the carrier/supplier for damages/short/ over-shipments
22	73.50	1.09	maintains supplies and stock inventory
23	69.75	1.03	processes credit memorandums
24	67.50	1.02	prepares bank deposit from cash receipts
25	47.25	1.00	types invoices from source documents as sales tickets, contracts, and receiving reports

Table I - con't.

RANK	TOTAL SQUARE INCHES FOR JOB TASK*	% OF FINAL TOTAL OF SQUARE INCHES COVERED BY ALL 34 JOB TASKS*	JOB TASK COMPLETED BY WORKER
26	47.25	1.00	prepares statements from patients' accounts and charge clips
27	39.38	.70	operates a keytape machine punching magnetic tapes
28	25.87	.58	places magnetic tape on a computer tape drive
29	24.75	.38	prepares punched cards for computer run
30	15.75	.37	operates a verifier
31	13.00	.30	verifiers manually prepared totals
32	12.38	.23	prepares weekly payroll from payroll tapes
33	9.00	.18	checks computer program
34	9.00	.18	verifies cash receipt for deposit

*The total square inches covered by all 34 specific job tasks amounts to 6,776.59 square inches.

The findings from the analysis of Century 21 Accounting First Year Course text:

1. Table I represents a ranked list of the 34 specific job tasks found in this text and the percentage of each job task of the total square inches covered by all the 34 job tasks.

2. The total number of square inches covered by the 34 job tasks listed in Table I amounted to 6,776.59 square inches or 27 percent of the total amount of 25,023.65 square inches of space analyzed in the text. See Table II for the details supporting this statement.

3. The total number of square inches covered by information specific only to the extent that it could be identified as fitting into a category amounts to 18,247.06 square inches or 73 percent of the total amount of 25,023.65 square inches of space as analyzed in the text. See Table II for details supporting this statement.

Table II

Content Analysis of the Ten Categories Used to Analyze Century 21 Accounting First-Year Course Text

Category	Rank	Total Square Inches	Total Square Inches for Specific Job Tasks	Total Square Inches for General Information
1	5	1,827.56	825.75	1,001.81
2	8	989.72	565.87	423.85
3	3	3,562.11	2,680.10	882.01
4	6	1,572.99	1,045.12	487.87
5	10	81.37	73.50	7.87
6	4	2,539.50	1,586.25	953.25
7	1	7,088.56	--------	7,088.56
8	2	5,064.82	--------	5,064.82
9	7	1,518.02	--------	1,518.02
10	9	819.00	--------	819.00
		25,023.65	6,776.59	18,247.06
		100%	27%	73%

Read line 1 as follows: Category 1 occupied the fifth largest amount of space in the text. Of the total 1,827.56 square inches occupied, 825.75 square inches applied to specific job tasks, 1,001.81 square inches can only be identified as applying to this category. (Reap, 1976: 130-131)

Summary

This chapter presented the findings of research studies and literature related to high school accounting/bookkeeping courses meeting the requirements of actual job tasks performed by beginning accounting and bookkeeping workers. The chapter was divided into three sections.

Sections I and II were devoted to examining related literature and research studies directed towards providing background information about requirements and instructional needs for entry-level accounting and bookkeeping workers.

The findings indicated that with the changing nature of accounting and bookkeeping occupations, high school accounting/bookkeeping courses are not meeting the requirements of business for entry-level positions in accounting/bookkeeping jobs. Many firms are not willing to hire persons with one year of high school accounting/bookkeeping; those beginning accounting workers who do get accounting/bookkeeping jobs were provided on-the-job training by the firms. Employers stated that the experiences in a one-year high school accounting/bookkeeping course are not realistic and that experience, rather than course studies, prepare them for the job they will be required to accomplish.

Educators must update accounting/bookkeeping course content to keep pace with the changing accounting/bookkeeping practices and develop new instructional strategies around entry-level required job competencies.

Section III explored a research study to determine the job tasks included in the accounting text used by Bozeman Senior High School. By analyzing the accounting text and determining the amount of text given to each specific job task, this information was used to help determine if Bozeman Senior High School accounting courses are meeting the job requirements for entry-level positions in accounting/ bookkeeping fields.

CHAPTER III

PRODEDURES

Introduction

The purpose of this study was to determine if the prevailing accounting courses in Bozeman Senior High School have been preparing accounting students to meet the requirements of actual job tasks performed by entry-level accounting and bookkeeping workers.

The purpose of this chapter was to (a) develop the null hypotheses, (b) describe the sources of data, (c) determine population sizes, (d) explain the construction of the survey instrument, (e) describe the administration of the survey instrument, and (f) describe the methods of analyzing the data.

Null Hypotheses

In order to determine if the accounting courses taught at Bozeman Senior High School are meeting the requirements needed by students to perform entry-level accounting/bookkeeping tasks, the following null hypotheses was tested:

> There is no difference between job tasks taught in accounting courses at Bozeman Senior High School and the job tasks performed by an entry-level accounting/ bookkeeping worker on the job in Bozeman, Montana.

Sources of Data

All of the sources of data were obtained by questionnaires sent to office supervisors or presidents of business firms that employ accounting/bookkeeping workers in the city of Bozeman, Montana. A total of 93 businesses were chosen randomly from a list of 500 businesses that was compiled by the Bozeman Chamber of Commerce.

Construction of Survey Form

Based on the review of Reap's (Reap, 1976:172-183), and West's (West, 1973:110-120) studies which identified 70 entry-level accounting/bookkeeping job tasks, a questionnaire was constructed. The questionnaire (Appendix B) was designed to gather information about what accounting/bookkeeping job tasks are performed by entry-level accounting/bookkeeping workers and at what level of their educational cycle did they learn to perform those job tasks. The questionnaire was further designed to determine the dollar sales volume of the business firm to see if there was a difference in the dollar sales volume of the business firms and the entry-level job tasks performed by their accounting/bookkeeping workers.

Initially, a trial format of the questionnaire was developed by the researcher and trial tested for possible revision. The trial test consisted of 10 business firms in Bozeman completing the trial format of the questionnaire.

Following the evaluation of the trial-tested questionnaire, a finalized questionnaire was constructed.

Administration of Survey Instrument

The initial cover letter to the office supervisor or president of the business firm, a cover letter to the entry-level accounting/ bookkeeping worker, and the questionnaire (Appendix A and B) were mailed to 93 selected businesses in Bozeman. A stamped, self addressed envelope was included for the convenience of the respondent. A total of 53, or 57 percent, of the questionnaires were returned and 46 questionnaires were determined to be useful.

Analysis of Data

The primary purpose of this study was to determine if the prevailing accounting courses in Bozeman Senior High School have been preparing accounting students to meet the requirements of actual job tasks performed by entry-level accounting/bookkeeping workers.

By a review of related literature in Chapter II, the first step was to analyze the accounting text used at Bozeman Senior High School, to determine the job tasks included in the text. By analyzing the accounting text, the amount of space, in inches, assigned to each job task was found. The volume of space for each job task was then accumulated and totaled. A percentage of the totaled amount of accumulated job task space was then found by dividing the totaled amount of accumulated job task space into the amount of space assigned to each specific job task.

A total of 34 job tasks were found and analyzed by using the method described above. These 34 job tasks were then placed in rank

order from 1 to 34, with number 1 given to the job task that had the largest number of total square inches and also had the highest percentage of final total square inches covered by all 34 job tasks included in the Bozeman Senior High School Accounting text (pages 24 to 27).

The next step was to analyze the results of the data provided by the questionnaires.

The Chi-square (X^2) test of significance was used to determine whether or not a significant difference between job tasks performed by students using the Century 21 Accounting, First Year Course text at Bozeman Senior High School and the job tasks performed by entry-level accounting/bookkeeping workers existed.

The first step in using the Chi-square (X^2) test was to take the 70 questions from the questionnaire and find the questions which corresponded directly to the job tasks analyzed from the accounting text at Bozeman Senior High School and defined on pages 24-27. By using the rank order of the job tasks as the coded value of these job tasks, corresponding questions from the questionnaire were assigned.

Job tasks 28, 29 and 33 were not coded because no questions from the questionnaire could be found to correspond to these job tasks (Appendix C).

Next the researcher analyzed the data relating to the size of business as determined by sales volume, and whether the entry-level accounting/bookkeeping worker had had a high school accounting/

bookkeeping class or not. The questionnaires were then divided into 7 groups. These 7 groups were:

(1) all respondents;

(2) completed questionnaires that indicated a high school accounting class had been taken;

(3) completed questionnaires that indicated no high school accounting class had been taken;

(4) completed questionnaires that indicated a business does less than $250,000 sales volume;

(5) completed questionnaires that indicated a business does more than $250,000 to $500,000 sales volume;

(6) completed questionnaires that indicated a business does more than $500,000 to $1,000,000 sales volume;

(7) completed questionnaires that indicated a business does over $1,000,000 sales volume.

Once the questionnaires were divided by number and percentage into the seven groups, the tasks were rank ordered from highest use to lowest use for each group.

A Chi-square (X^2) test using the following formula was then taken for each question in each of the seven groups:

$$X^2 = \frac{(R_{BU} - R_{BOOK})^2}{R_{BOOK}}$$

where X^2 = the measure of the discrepancy existing between observed and expected frequencies; R_{BU} = business question ranking and R_{BOOK} = job task ranking from accounting text. The .05 level of significance was used to give a Chi-square (X^2) critical value of 43.773. The

Degrees of Freedom (DOF), which was 30, was found by using the following formula:

$$DOF = (R-1)(C-1)$$

where (R-1) = the number of rows used and (C-1) = the number of columns used.

CHAPTER IV

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

The purpose of this chapter is to present, analyze, and interpret the findings of this study by analyzing information gathered through questionnaires sent to entry-level accounting/bookkeeping employees of business firms in the city of Bozeman, Montana. The data is presented in tables and narrative form.

The researcher's purpose was to determine if the job tasks taught in accounting courses at Bozeman Senior High School are meeting the requirements of actual job tasks performed by entry-level accounting/bookkeeping workers.

Using the Chi-square (X^2) test of significance, Table I (pages 24-27) shows the relationship between job tasks taught in accounting courses at Bozeman Senior High School and the job tasks that are actually being performed by entry-level accounting/bookkeeping workers in each of the 7 groups that the questionnaires were divided into.

Using the Chi-square (X^2) test of significance to test the null hypothesis:

> There is no difference between job tasks taught in accounting courses at Bozeman Senior High School and job tasks performed by an entry-level accounting/bookkeeping worker on the job.

The hypothesis was rejected at the .05 significance level if the Chi-square (X^2) value was larger than 43.773.

TABLE III

Groups	Chi Square (X^2) Test Relationship
1. all respondents	122.017
2. respondents who took high school accounting	110.237
3. respondents who did not take high school accounting	126.611
4. responses from employees in businesses that have less than $250,000 sales volume	107.325
5. responses from employees in businesses that have between $250,000 and $500,000 sales volume	96.669
6. responses from employees in businesses that have between $500,00 and $100,000 sales volume	95.896
7. responses from employees in businesses that have more than $1,000,000 sales	125.776

Analyzing the information in Table III, in all 7 cases the hypothesis would be rejected and a conclusion drawn that there is no significant relationship between the job tasks that are taught in accounting courses at Bozeman Senior High School and the job tasks that are performed by entry-level accounting/bookkeeping workers in Bozeman.

Although the information in Table III indicates that the job tasks taught in Bozeman Senior High School accounting courses have no significant relationship to the job tasks necessary for employment in an entry-level accounting/bookkeeping occupation, the researcher concludes that this should not be construed to mean that the accounting courses taught and the accounting text used at Bozeman Senior High School are stressing the wrong job tasks necessary for employment as an entry-level accounting/bookkeeping worker.

By analyzing the total number of responses from all the returned questionnaires, and by using the percentages of the responses that indicate that the job task is performed in an entry-level accounting/bookkeeping position, some consideration can be given to those job tasks that appear to be necessary for entry-level accounting/bookkeeping employment and the amount of space allotted those job tasks in the Bozeman Senior High School accounting text.

For the purpose of this study the researcher felt that if a job task was used by 70% or more of the entry-level accounting/bookkeeping workers on the total returned questionnaires, that job task was needed to gain an entry-level accounting/bookkeeping position.

The following tables list the job tasks and the percent that indicated use of the task on the job. These job tasks appear to be necessary for employment as an entry-level accounting/bookkeeping worker.

Table IV

Job Task	Percent
Verifies cash receipts for deposit	89.00

Table IV indicates that 89.00 percent of the total respondents use this job task. The Bozeman Senior High School Accounting text allots this job task the 4th highest amount of space in the text. The accounting text does cover this job task fairly sufficiently, but more time and space seem to be needed to cover this task.

Table V

Job Task	Percent
Records accounts receivable from such documents as salesmen's orders, cash receipts and invoices	87.00

Table V indicates that 87.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 8th highest amount of space in the text. Certainly more time and space must be provided to cover this job task.

Table VI

Job Task	Percent
Worker prepares bank deposit from cash receipts	87.00

Table VI indicates that 87.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 24th highest amount of space in the text. This job task appears to be highly needed to gain employment as an entry-level accounting/bookkeeping worker but the accounting text in use at Bozeman Senior High School allots only a very small amount of space to cover this topic.

Table VII

Job Task	Percent
Prepares statements from customers' accounts and charge slips	83.00

Table VII indicates that 83.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 26th highest amount of space in the text. This job task appears to be highly needed to gain entry-level accounting/ bookkeeping employment but the accounting text fails to provide space to cover this topic.

Table VIII

Job Task	Percent
Prepares payments from documents such as invoices, bills and vouchers	78.00

Table VIII indicates that 78.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 14th highest amount of space in the text. The accounting text appears to not provide enough space to cover this topic.

Table IX

Job Task	Percent
Receives cash payments over the counter	74.00

Table IX indicates that 74.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 5th highest amount of space in the text. The accounting text appears to cover this topic at a very acceptable level.

Table X

Job Task	Percent
Records accounts payable	73.00

Table X indicates that 73.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 9th highest amount of space in the text. The accounting text appears to cover this topic at an acceptable level.

Table XI

Job Task	Percent
Prepares and records on customer's ledger accounts	72.00

Table XI indicates that 72.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 2nd highest amount of space in the text. The accounting text appears to do an excellent job of covering this topic.

Table XII

Job Task	Percent
Prepares payroll	70.00

Table XII indicates that 70.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the highest amount of space in the text for any job task. The accounting text appears to provide excellent coverage of this topic.

Table XIII

Job Task	Percent
Prepare disbursement of petty cash	70.00

Table XIII indicates that 70.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 13th highest amount of space in the text. The accounting text appears to not provide enough space to cover this topic.

Table XIV

Job Task	Percent
Records payroll information in employees' ledger cards	70.00

Table XIV indicates that 70.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 20th highest amount of space in the text.

The accounting text appears to not provide enough space to cover this topic.

Analyzing the data presented in Tables IV to XIV, of the total 11 job tasks identified as needed to gain an entry level accounting/ bookkeeping position, 7 appear to require more space than is currently allowed in the accounting text.

For the purpose of this study the researcher felt that if a job task was indicated to be used by 31-69 percent of the entry-level accounting/bookkeeping workers, the job task was used, but not a requirement for employment as an entry-level accounting/bookkeeping worker. Hence, the job tasks that fall into the above percentiles seem to be alloted adequate space in the accounting text, used by Bozeman Senior High School, for proper coverage of the topic.

For the purpose of this study the researcher also felt that if a job task was indicated to be used by 1-30 percent of the entry-level accounting/bookkeeping workers, the job task was determined to be of little value in gaining an entry-level accounting/bookkeeping position.

The following tables present job tasks and the percent that indicated use of the task on the job. These job tasks seem to be of little value in gaining employment as an entry-level accounting/ bookkeeping worker.

Table XV

Job Task	Percent
Punches corrections in cards	7.00

Table XV indicates that 7.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 7th highest amount of space in the text. The accounting text appears to provide too much space for this topic.

Table XVI

Job Task	Percent
Operates a verifier	9.00

Table XVI indicates that 9.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 30th highest amount of space in the text. The accounting text appears to provide enough space for this topic.

Table XVII

Job Task	Percent
Operates unit-record equipment such as sorter, reproducer, collator and interpreter	9.00

Table XVII indicates that 9.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 17th highest amount of space in the text. The accounting text appears to provide too much space for this topic.

Table XVIII

Job Task	Percent
Operates reproducer from punched cards, printed lists and summary cards	9.00

Table XVIII indicates that 9.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 16th highest amount of space in the text. The accounting text appears to provide too much space for this topic.

Table XIX

Job Task	Percent
Operates a keytape machine punching magnetic tape	11.00

Table XIX indicates that 11.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 27th highest amount of space in the text. The accounting text appears to provide enough space for this topic.

Table XX

Job Task	Percent
Punches cards from source documents such as invoices, orders and time cards.	11.00

Table XX indicates that 11.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 19th highest amount of space in the text. The accounting text appears to provide too much space for this topic.

Table XXI

Job Tasks	Percent
Writes computer programs	13.00

Table XXI indicates that 13.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 6th highest amount of space in the text. The accounting text provides far too much space for this topic.

Table XXII

Job Task	Percent
Codes forms such as purchase orders, invoices, and applications for keypunching	23.00

Table XXII indicates that 23.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 11th highest amount of space in the text. The accounting text provides too much space for this topic.

Table XXIII

Job Task	Percent
Processes credit information	28.00

Table XXIII indicates that 28.00 percent of the total respondents use this job task. The Bozeman Senior High School accounting text allots this job task the 23rd highest amount of space in the text. The accounting text appears to provide too much space for this topic.

Analyzing the data presented in Tables XIV to XXIII, of the total 9 job tasks identified as having little value in gaining an entry-level accounting/bookkeeping position, 8 of the job tasks were determined to occupy more space in the accounting text than was needed to cover the topic sufficiently.

Although the researcher was primarily concerned with the total questionnaire responses and the job tasks used, further analysis of the data does provide some interesting and revealing information.

Comparing the different job tasks performed by entry-level accounting/bookkeeping employees who took accounting in high school and those who did not, the researcher found that very little

difference existed in the job tasks performed by each of the two above-mentioned groups. Table XXIV shows the top 5 job tasks performed by the two groups.

Table XXIV

	Had High School Accounting	Didn't Have High School Accounting
1.	Writes or calls delinquent customers and processes accounts of delinquent customers	Verifies total of cancelled checks, computer tapes, and tellers' balance sheets
2.	Process freight bills for payment	Process changes in status of accounts
3.	Processes changes in status of accounts	Prepares and records on customers' ledger accounts
4.	Prepares and records on customers' ledger accounts	Writes or calls delinquent customers and processes accounts of delinquent customers
5.	Verifies total of cancelled checks, computer tapes, and tellers' balance sheets	Processes freight bills for payment

Table XXIV indicates the entry-level accounting/bookkeeping employees who had high school accounting and those who didn't have high school accounting perform the same top 5 job tasks. The order of each particular job task is different, but the top 5 job tasks are the same.

Additional Findings

Computing the data by size of business, based upon the business' dollar sales volume, the entry-level accounting/bookkeeping employees

of business firms that have a dollar sales volume ranging from $250,000 to $500,000, from $500,000 to $1,000,000, and over $1,000,000; it was found that there were no significant differences in job tasks performed by entry-level accounting/bookkeeping employees of these 3 groups. The entry-level accounting/bookkeeping workers of these three groups all indicated that the top 10 job tasks performed were the same.

The following table lists the top 10 job tasks performed by the three groups of entry-level accounting/bookkeeping workers mentioned above.

Table XXV

Top Ten Job Tasks
1. Writes or calls delinquent customers and processes accounts of delinquent customers
2. Verifies customers' accounts payable
3. Processes changes in status of accounts
4. Records money received or spent from internal accounts
5. Processes freight bills for payment
6. Verifies total of cancelled checks, computer tapes and tellers' balance sheets
7. Types invoices from such documents as sales tickets, contracts and receiving reports
8. Records accounts receivable from such documents as salesman's orders, cash receipts and invoices
9. Records receipts and withdrawals in the ledger
10. Prepares and records on customers' ledger accounts

Table XXV indicates the top 10 job tasks of the entry-level accounting/bookkeeping workers of business firms that have a dollar sales volume ranging from $250,000 to $500,000, from $500,000 to $1,000,000 and over $1,000,000. The table doesn't list the job tasks in rank order, but rather lists the top 10 job tasks needed for employment as an entry-level accounting/bookkeeping worker in a business firm that is in the above dollar sales volume ranges.

The only significant difference in job tasks performed by entry-level accounting/bookkeeping workers in the 4 groups of business firms based on their dollar sales volume, was found to be in the business firms that had less than $250,000 in dollar sales volume. The entry-level accounting/bookkeeping workers of this group, indicated that they perform 5 out of the top 10 job tasks of the other 3 groups of entry-level accounting/bookkeeping workers, but the other 5 job tasks performed by this group were not in the top 10 job tasks performed by the other 3 groups.

The following table lists the 5 job tasks performed by all 4 groups of entry-level accounting/bookkeeping workers.

Table XXVI

Job Tasks Performed by All Groups
1. Writes or calls delinquent customers and processes accounts of delinquent customers
2. Processes changes in status of accounts
3. Prepares and records on customers' ledger accounts
4. Processes freight bills for payment
5. Types invoices from such documents as sales tickets, contracts and receiving reports

Table XXVI indicates the 5 job tasks performed by all employees of the 4 different sizes of businesses, based on dollar sales volume.

Table XXVII

Job Tasks Performed
1. Answers charge account billing inquiries
2. Processes shipping and billing forms on completed jobs
3. Receives cash payments over the counter
4. Prepares billing of sales
5. Processes credit application and credit information requests

Table XXVII indicates the 5 job tasks needed by only the the employees of businesses with less than $250,000 dollar sales volume.

CHAPTER V

CONCLUSIONS, RECOMMENDATIONS, SUMMARY

Introduction

This study sought to determine whether the prevailing accounting courses at Bozeman Senior High School have been preparing accounting students to meet the requirements of actual job tasks performed by entry-level accounting/bookkeeping workers in the city of Bozeman, Montana.

The accounting text used at Bozeman Senior High School was examined to identify the specific accounting job tasks taught in accounting courses at Bozeman Senior High School. This procedure is detailed in Chapter 2.

Questionnaires were then sent out to entry-level accounting/bookkeeping workers in Bozeman to identify job tasks performed by these accounting/bookkeeping workers.

Chapter 4 presents an analysis and interpretation of the data that was collected during the research process.

Chapter 5 reports the conclusions and recommendations drawn from the data.

Conclusions

(1) The accounting text used at Bozeman Senior High School appears to allot too much space to job tasks that are not a requirement for employment as an entry-level accounting/bookkeeping employee.

(2) The accounting text used at Bozeman Senior High School covers job tasks necessary for employment as an entry-level accounting/ bookkeeping employee, but of the total 11 job tasks identified as needed to gain an entry level accounting/bookkeeping position, 7 appear to require more information to thoroughly cover the topic.

(3) There seems to be little difference in job tasks performed by entry-level accounting/bookkeeping workers who had a high school accounting class and those workers who did not have a high school accounting class.

(4) Job tasks of entry-level accounting/bookkeeping workers appear to require little understanding of how to analyze a business transaction into debit and credit parts.

(5) Job tasks of entry-level accounting/bookkeeping workers included a significant amount of recording in accounts receivable and accounts payable ledgers.

(6) Job tasks as outlined in the electronic data processing category in the text and the extension equipment used in electronic data processing systems seems to be of little value for entry-level accounting/bookkeeping workers in Bozeman. This may indicate that more accounting/ bookkeeping departments in business firms are using simple microcomputer systems rather than electronic data processing equipment.

(7) Entry-level accounting/bookkeeping employees of the four different groups of businesses, based on the business' dollar sales volume, require the same top 10 job tasks for entry-level employment with the exception of a business with less than $250,000 dollar sales volume. Employees of these firms perform 5 of the top 10 job tasks and 5 totally different job tasks not included in the top 10 job tasks performed by employees of the 3 other groups of businesses.

Recommendations

(1) Accounting courses at Bozeman Senior High School should be updated to provide closer agreement with the actual job tasks of entry-level accounting/bookkeeping workers. While a blend of accounting principles and accounting tools are necessary; a large portion of accounting courses should be designed to cover more specific job tasks that are needed to gain employment as an entry-level accounting/bookkeeping worker.

(2) Outside supplemental information should be used in the accounting courses to teach specific job tasks that are necessary for entry-level accounting/bookkeeping employment.

(3) Less emphasis should be placed on job tasks determined to be of little value when trying to obtain an entry-level accounting/ bookkeeping job.

(4) The current accounting text used by Bozeman Senior High School should be reviewed to determine if this text best meets the needs of accounting courses.

(5) Further research of this project is needed. Possibly, a questionnaire with only 6 or 7 general topics covered in an accounting class could be constructed and sent to business firms to (1) see if the business rank order of these topics agrees with the accounting text rank order and (2) see if different sized businesses, based on dollar sales volume, rank order this general topics the same.

Summary

There is no doubt in the researcher's mind that there exist discrepancies between the job tasks that are being taught in accounting courses at Bozeman Senior High School and the job tasks that are needed for employment as an entry-level accounting/ bookkeeping worker in businesses in the city of Bozeman, Montana.

It is understandable that these discrepancies exist due to the lack of research that exists pertaining to what job tasks are needed

for entry-level accounting/bookkeeping employment and the job tasks that are presented by the accounting text.

It is hoped that by bringing forward some of the differences between job tasks taught in the accounting courses at Bozeman Senior High School and accounting/bookkeeping job tasks performed in businesses in the city of Bozeman, Montana, progress will be made to make sure that the accounting principles and tools taught at Bozeman Senior High School will better prepare students for entry-level accounting/ bookkeeping employment.

BIBLIOGRAPHY

BIBLIOGRAPHY

Buckley, Dale. "Tasks and Duties Performed by Bookkeepers." Business Education Forum, Vol. 27, No. 3 (December, 1972), pp. 16 - 17.

Curless, Jack. "A Comparative Analysis Between 1969 and 1973 of the Minimum Educational Requirements Necessary for Entry into Thirteen Types of Electronic Data Processing Positions." Unpublished doctoral dissertation, Northern Illinois University, 1973.

Donnel, Elise Louise. "A Study of Selected Entry Level Competencies Needed for Bookkeeping/Accounting Positions As Reported By Business Teachers and Employees in Wyoming." Unpublished doctoral dissertation, University of Wyoming, 1976.

Dudley, Thomas Jerome. "Computers in Business Education." Unpublished doctoral dissertation, University of Southern California, 1965.

Lanham, Frank. "Development of Task Performance Statements for a New Office and Business Education Learning System (NOBELS)." Revised Final Project Reporting (Columbus: Center for Research and Leadership Development in Vocational and Technical Education, Ohio State University, 1973) ED 068 728

Luxner, Lois. "Factors Affecting the Employability of Vocational Bookkeeping Students." Unpublished doctoral dissertation, University of Pittsburgh, 1970.

Huffman, H. "The Teaching of High School Accounting, Bookkeeping, and Recordkeeping." Contributions of Research to Business Education Yearbook, No. 9, 1971, pp. 71 - 73.

Parsche, Sister Catherine. "Revolution in the Accounting Department and Its Effects on Teaching Procedures." Business Education Forum, Vol. 23, No. 3, (December, 1968), pp. 10 - 12.

Reap, Margaret Casey. "Job Tasks of the Beginning Accounting and Bookkeeping Worker Compared With the Content of the High School Accounting and Bookkeeping Curriculum." Unpublished doctoral dissertation, University of Houston, 1976.

Reap, Margaret C. "The Discussion Continues - What is a Bookkeeper?" Business Education Forum, Vol. 34, No. 4, (January, 1980), pp. 15 - 18.

Schmidt, June. "Recordkeeping - Accounting Competencies Needed by Potential Office Workers." Business Education Forum, Vol. 32, No. 4, (January 1978) pp. 12 - 14.

Spanswick, Ralph S. "An Investigation to Determine the Qualifications and Skills Desired, Accepted, and Actually Used in Manual Bookkeeping Jobs Which Were Tested In Chicago and New York City Newspapers During the Months of May and August, 1966." Unpublished doctoral dissertation, Northern Illinois University, 1967.

Tonne, Herbert. "A Critique of Bookkeeping Instructional Changes." Journal of Business Education, (December, 1970), p. 108.

West, Leonard J. "Survey of Entry-Level Bookkeeping Activities in Relation to the High School Bookkeeping Curriculum." Research Report 73-1 (New York City University of New York, Institute for Research and Evaluation in Occupational Education, 1973) ED 086-873

U.S. Bureau of Labor Statistics, Handbook of Labor Statistics (Washington, D.C.), and U.S. Government Printing Office, 1973, Table 6, pp. 19 and 39.

APPENDICES

APPENDIX A

COPIES OF LETTERS

LETTER TO EMPLOYERS OF BOOKKEEPER/ACCOUNTANTS

BSHS BOZEMAN SENIOR HIGH SCHOOL Founded 1892

205 North 11th Avenue
BOZEMAN, MONTANA 59715

LOUIS GAPPMAYER
Principal

May 2, 1984

Name
Position in Business
Name of Business
Address
City/State/Zip Code

Dear_____:

Your cooperation is needed in helping Bozeman Senior High School provide better trained personnel in the fields of accounting, recordkeeping and bookkeeping.

With the many technological developments and the trends of the business world that have influenced the work of bookkeepers/accountants, high school instruction may not have kept abreast of these developments. The high school instruction needs to be updated to bring it into closer accord with what today's bookkeepers/accountants actually do.

The first step in modernizing bookkeeping/accounting instruction, is to determine the actual job activities of "entry level*" bookkeepers/accountants. Would you please ask your employees, whose duties include bookkeeping/accounting, to complete the enclosed questionnaire. If there is more than one such person, give it to the least experienced employee, together with the enclosed cover letter addressed "Dear Bookkeeper/Accountant" and the self-addressed, return envelope.

Participating firms and individuals will not be identified in any way in this report. We are interested only in job activities, not in information that could be considered confidential. You as a participant, however, are being asked to answer Question #1 on the questionnaire dealing with dollar sales volume. This is not to divulge your business name, but rather, the size of your business in dollar sales volume.

After answering Question #1, please give the questionnaire and cover letter with the self-addressed, return envelope to your bookkeeping/accounting employee and urge that person to complete the questionnaire promptly and return it to me. Thank you for your time and cooperation.

Sincerely,

Scott McDonald, Teacher
Bozeman Senior High School

*entry level - a postion that the employer may offer to nominally experienced or nominally educated persons.

LETTER TO BOOKKEEPER/ACCOUNTANT EMPLOYEES

BSHS BOZEMAN SENIOR HIGH SCHOOL Founded 1892

205 North 11th Avenue
BOZEMAN, MONTANA 59715

LOUIS GAPPMAYER
Principal

May 2, 1984

Dear Bookkeeper/Accountant:

Bozeman Senior High School is attempting to improve instructional training of bookkeepers/accountants.

You can potentially assist us by informing us what you do on your job/position. For that purpose we have enclosed a questionnaire and a self-addressed, return envelope for your convenience. We would appreciate your completing the questionnaire by filling in all the appropriate spaces provided. If you have any further written comments that you would like to submit, please feel free to do so on the space provided.

Thank you in advance for your assistance and cooperation. We look forward to receiving your completed questionnaire within the next few days. Thank you very much.

Sincerely,

Scott McDonald, Teacher
Bozeman Senior High School

APPENDIX B

QUESTIONNAIRE

QUESTIONNAIRE SENT TO ACCOUNTING/BOOKKEEPING EMPLOYEES

QUESTIONNAIRE

Directions

Please check (✔) the appropriate response as it applies to your firm.

1. What is the size of your business in dollar sales volume.

_____ less than $250,000
_____ $250,000 to $500,000
_____ $500,000 to $1,000,000
_____ over $1,000,000

PLEASE GIVE THE REMAINING PORTION OF THIS QUESTIONNAIRE TO YOUR BOOKKEEPING/ACCOUNTING EMPLOYEE.

Directions

The following is a list of job tasks sometimes performed by beginning bookkeeping/ accounting workers. For each job activity, check (✔) in the perform column either YES or NO to indicate if you perform that job task on your present job - then

If you answer YES, check (✔) in the learned column to show where you received the most education/training that prepared you to perform that activity.

Definitions

High School (H. S.) - educational training that includes grades 9th thru 12th

Post Secondary (Post Sec.) - educational experience above high school training

JOB TASKS	PERFORM			LEARNED		
	YES	NO		H. S.	POST SEC.	ON-THE-JOB
1. Types invoices from such documents as sales tickets, contracts and receiving reports.						
2. Records accounts receivable from such documents as saleman's orders, cash receipts and invoices.						
3. Prepares billing of sales.						
4. Writes or calls delinquent customers and processes accounts of delinquent customers.						
5. Verifies customers' accounts payable.						
6. Completes sales reports.						

(over)

QUESTIONNAIRE SENT TO ACCOUNTING/BOOKKEEPING EMPLOYEES cont.

JOB TASKS	PERFORM		LEARNED		
	YES	NO	H. S.	POST SEC.	ON-THE-JOB
7. Prepares statements from customers' accounts and charge slips.					
8. Process changes in status of accounts.					
9. Records receipts and withdrawals in the ledger.					
10. Process credit application and credit information requests.					
11. Verifies customers' credit.					
12. Processes credit information.					
13. Answers charge account billing inquiries.					
14. Prepares and records on customers' ledger accounts.					
15. Process requests by telephone and over the counter.					
16. Types sales items from rough draft.					
17. Processes customer orders.					
18. Processes shipping and billing forms on completed jobs.					
19. Records loan payment reversing entries.					
20. Records money received or spent from internal accounts.					
21. Compiles accounts payable from source documents.					
22. Records accounts payable.					
23. Records inbound shipments and claims and adjustments against carrier/supplier list for damages/short/over-shipments.					
24. Processes freight bills for payment.					
25. Prepares payments from documents such as invoices, bills, and vouchers.					
26. Verifies total of cancelled checks, computer tapes, and tellers balance sheets.					

QUESTIONNAIRE SENT TO ACCOUNTING/BOOKKEEPING EMPLOYEES cont.

JOB TASKS	PERFORM			LEARNED		
	YES	NO		H. S.	POST SEC.	ON-THE-JOB
27. Verifies cash receipts for deposit.						
28. Performs routine checks on such items as deposit slips and adding machine tapes.						
29. Worker corrects checks, savings and withdrawal slips, balance sheets, and other source documents.						
30. Checks computation.						
31. Worker prepares bank deposit from cash receipts.						
32. Receives cash payments over the counter.						
33. Records payments received.						
34. Records deposits to customers' accounts.						
35. Prepares reconciliation of bank account.						
36. Prepares disbursements from customer accounts.						
37. Records payment other than accounts payable in check register or writes check.						
38. Prepares disbursement of petty cash.						
39. Prepares payroll.						
40. Records payroll information in employees ledger cards.						
41. Computes payroll changes.						
42. Compiles payroll reports from payroll information.						
43. Compiles unit costs of jobs and sales/production estimates from expense sheets and/or total sales figures.						
44. Prepares bids and cost estimates of product and services.						
45. Types cost analysis reports.						
46. Updates inventory records from office supply inventory documents.						

(over)

QUESTIONNAIRE SENT TO ACCOUNTING/BOOKKEEPING EMPLOYEES cont.

JOB TASKS	PERFORM		LEARNED		
	YES	NO	H. S.	POST SEC.	ON-THE-JOB
47. Records finished-goods inventory from production and shipping data.					
48. Completes physical inventory.					
49. Maintains supplies and stock inventory.					
50. Processes schedules and adjustments of scheduled production orders.					
51. Types production reports.					
52. Punches payroll data.					
53. Punches cards from source documents such as invoices, orders, and time cards.					
54. Operates a verifier.					
55. Operates a keytape machine punching magnetic tape.					
56. Punches corrections in cards.					
57. Checks source documents such as orders, invoices, punched cards, and printouts with computer printouts/listing.					
58. Performs electronic data processing tasks from such items as computer printouts, files, accounting forms, manuals, maps and instructions.					
59. Operates reproducer from punched cards, printed lists and summary cards.					
60. Codes forms such as purchase orders, invoices, and applications for keypunching.					
61. Operates unit-record equipment such as sorter, reproducer, collator and interpretor.					
62. Writes computer programs.					
63. Records items such as stocks, bonds, deposit slips, and passbooks.					
64. Records data for financial reports from schedules.					

QUESTIONNAIRE SENT TO ACCOUNTING/BOOKKEEPING EMPLOYEES cont.

JOB TASKS	PERFORM			LEARNED		
	YES	NO		H. S.	POST SEC.	ON-THE-JOB
65. Prepares financial reports.						
66. Check accuracy of source documents such as sales, purchasing and tax forms.						
67. Types insurance documents.						
68. Processes insurance claims.						
69. Processes insurance inquiries.						
70. Processes stock certificates.						
71. Please list other bookkeeping/accounting tasks not listed above that are performed by you on your job and give a short description of each task.						

Please check (✔) the appropriate response as it applies to you.

2. While in your high school educational training, did you take a bookkeeping/accounting class.

_____YES

_____NO

Again, thank you for your assistance and cooperation and would you please return the questionnnaire in the self-addressed, return envelope.

APPENDIX C

ACCOUNTING TEXTBOOK JOB TASKS AND CORRESPONDING QUESTIONNAIRE QUESTIONS

ACCOUNTING TEXTBOOK JOB TASKS AND

CORRESPONDING QUESTIONNAIRE QUESTIONS

CENTURY 21 ACCOUNTING FIRST-YEAR COURSE TEXTBOOK JOB TASKS	CORRESPONDING QUESTIONNAIRE'S QUESTION
1	39
2	14
3	26
4	27
5	32
6	62
7	56
8	2
9	22
10	3
11	60
12	35
13	38
14	25
15	21
16	59
17	61
18	42
19	53
20	40
21	23
22	49
23	12
24	31
25	1
26	7
27	55
28	No Question
29	No Question
30	54
31	57
32	41
33	66
34	No Question