

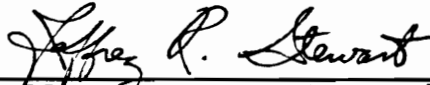
AN ANALYSIS OF THE HIGH SCHOOL BANKING CURRICULUM  
IN A SELECTED PUBLIC SCHOOL SYSTEM IN THE  
METROPOLITAN WASHINGTON, DC, AREA

by

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(Abstract)

The purpose of this study was to determine the extent to which tasks taught in the high school banking courses match tasks performed by tellers in the workplace. The research questions were as follows: (a) What are the teller tasks taught in the high school banking courses? (b) What is the importance of the tasks, as perceived by school bank managers, to the training of students for employment in teller positions? (c) What are the tasks performed by tellers in financial institutions? (d) What is the importance of the tasks, as perceived by tellers, to the performance of the duties of the job? (e) To what extent do the teller tasks taught in the high school banking courses match the tasks performed by tellers in financial institutions? (f) To what extent do tellers and school bank managers perceive the importance of the tasks similarly?

Survey questionnaires were used to gather descriptive data on teller tasks taught in the high school banking courses and performed on the job. Response rates for school bank managers and tellers were 91% and 79%, respectively. Mean scores, percentages, and correlations were used to analyze the data.

The findings revealed: (a) Over all 86 tasks, 56% were taught by school bank managers and 77% were performed by tellers. (b) Some of the tasks tellers rated important were not taught in the banking courses. (c) The tasks were rated important by both groups. (d) Students in some of the high schools had very limited exposure to tasks performed in the teller position.

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## DEDICATION

In loving memory of my parents, Andrew J. and Delia Hargrett, and sister, Eddie Rivers, I dedicate this dissertation. Your advocacy of education continues to live on.

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## CHAPTER 1

### INTRODUCTION AND BACKGROUND INFORMATION

This study was undertaken to determine the extent to which tasks taught in high school banking courses in the high schools of a selected public school system in the Washington, DC, area matched tasks performed by tellers in the workplace. Eleven high schools in this school system have banking facilities which serve as depositories for income from extracurricular activities and as laboratories for student skill development for banking occupations.

Developing banking skills through a laboratory facility is a unique approach. In many business education programs, bank training is found in instructional modules within other business courses. Units on banking are included in courses in office simulation, secretarial administration and office specialist, basic business, business arithmetic, office procedures, recordkeeping, and accounting.

The laboratory bank training program consists of two semester courses--Banking I and Banking II. Students in the 11th and 12th grades elect either or both courses, for which they earned one-half credit for each class. Any student enrolled in the schools was able to take these courses because there are no prerequisites.

The nature and volume of activities vary from school to school, thus creating problems in designing a specific curriculum for these courses. However, common operational functions are inherent in the management of the banking facilities. Students are expected to be able to:

1. Identify currency by portrait.
2. Count, wrap, and strap currency.
3. Prepare deposit and withdrawal tickets.
4. Maintain checkbook.
5. Reconcile a bank statement.
6. Endorse checks.
7. Verify and prove the accuracy of work.
8. Read a bank statement.
9. Serve customers.
10. Operate office machines and computer (if available).
11. Post to financial journals and ledgers.
12. Prepare a trial balance.
13. Prepare a budget.
14. Typewrite.
15. Perform clerical tasks.
16. Complete sample credit and job applications.

Other unique features of the banking program are the class size and scheduling. The average class size ranges from two to five students, depending on the space in the

facility. In some of the schools, space is limited while in others the banking facility is of normal classroom size.

The school bank managers are assigned the usual five-period teaching class load. Oftentimes classes are scheduled before the beginning of school and during the lunch period. With this schedule, students are able to complete their financial transactions at times when they are not in class.

The services of the banks are utilized by the entire population of the schools. Students, teachers, club sponsors, administrators, clerical staff, cafeteria workers, and custodial employees are regular customers of the banks.

Eleventh grade students are eligible to participate in the cooperative office education program during their senior year if the program exists in the school. Through the cooperative office education program, students have the opportunity to gain additional experience by working in a financial institution during part of the school day.

Dewar (1981, p. 148) explained that:

Cooperative education gets the students one step closer to the real world by having them engage in a school and work program in which the student-learners receive supervised work experience as part of the school curriculum. Through a cooperative arrangement between the school and business employers, the student spends a part of the day in school and part at a

training station (business firm) and is paid for his/her services.

Because of the enormous changes in business and industry, an occupational analysis of future trends in the job market for tellers was appropriate. The results of this investigation showed a promising future for tellers to the year 2000 (U.S. Department of Labor, 1990, p. 249). Further, the future direction for business education, according to Hall (1990, pp. 1-11), must encompass broad instructional planning to ensure compatible curricula designs.

According to Alexander and Echternacht (1990, p. 45):

A sincere effort must be made to determine the jobs for which students are being prepared, the tasks required for each job classification, and the level of competence required for job entry as well as advancement on the job. Instructional materials and activities should be developed that will prepare students to perform at an acceptable level.

Educators striving to prepare graduates for job success should know the weaknesses and strengths of their programs in order to improve them. Task competencies and performance levels must be identified to make that determination (Mason, 1984, p. 8). Schlenker (1983, pp. 7, 20) emphasized that:

Task analyses are conducted, therefore, so that instructionally important tasks may be identified. . . . Task analysis, an extremely important part of the educational and training process, is a link between what competent individuals need to do and what they are

taught to do in courses, and training and educational programs.

Data collected as a result of task analyses of jobs have many uses. According to information contained in curriculum guides, task analysis data are used to assist teachers and other educators in developing a course of study, structuring learning sequences, determining standards of performance, performing self-evaluation, and tracking individualized instruction.

#### Procedures of the School Bank

From a historical perspective (Blair, 1915, p. 183), the first high school bank in this public school system was established in 1913. During the first year of operation, there were 303 depositors with total deposits of \$5,140.34 and withdrawals of \$3,560.68. Approximately 276 of the 303 depositors were students. The bank's funds were deposited in a commercial bank and protected by surety bonds. The majority of the student workers in the bank were not drawn from the business education program. Students in the academic courses found the program attractive and became the major source of workers. Ironically, the banking courses continued to attract more students from the academic program up to 1990.

By 1917 (Daniel, 1918, p. 95), there were banks in five high schools with branches in the junior high and grade

schools. Business education teachers were placed in charge of these banks. Some of the values to students working in the banks, as reported to the Board of Education in 1918

Daniel, 1918, pp. 211-212), were:

1. To give initiative and self-reliance by actually meeting and solving problems that arise in a business for which they are responsible.
2. To drill them in bookkeeping.
3. To give practical expression to the accounting and finance and to the business organization and management they study as correlative studies.
4. To give skill and accuracy in counting and handling cash.
5. To develop tact and presence in meeting customers or clients.
6. To engender a spirit of loyalty, cooperation and courtesy to employers.
7. To make them considerate of and agreeable to their associates and adaptable to their environment.
8. To appreciate and assume responsibility and to act properly under it.
9. To develop the habit of proving or checking up results.
10. To learn the business of banking.
11. To bring them into direct touch with local banking institutions and bankers.

Although the school banks operate independently, guidelines have been established by the central administration. These guidelines are contained in a manual, Accounting Guide for School Activity Funds (1987), which was

distributed to each school bank manager. This manual describes the official policies relating to school activity funds, the sources of funds for school activities, management and control requirements, and the prescribed accounting system and records needed.

The superintendent, assistant superintendent for secondary schools, principal, and treasurer (the school bank manager) had direct responsibility to administer the school activity funds. The high schools were not restricted in the amount of funds raised through school-sponsored, extracurricular activities. For this reason, the fiscal balances differed for each school. The local school representative to the Washington Teachers' Union had joint responsibility with the principal for the procedures for allocation of all school funds (appropriated and nonappropriated).

Although none of the funds collected through these banks were appropriated by the school system, a detailed reporting system was followed. Each school was required to prepare and distribute semiannual reports of receipts and disbursements to the Finance Department, Athletic Department, assistant superintendent for secondary schools, and the principal. In addition, a monthly report of the financial condition of the bank was prepared for the use of

the principal, school business manager, and the representative of the teachers' union.

### Statement of the Problem

The problem addressed in this study was to assess the extent to which tasks taught in Banking I and Banking II courses of the selected public school system in the Washington, DC, area matched teller tasks performed in financial institutions. Despite the impact of technology, financial institutions will continue to employ high school graduates as tellers, while other positions will require postsecondary education (Bailey, 1990, p. 10). Tasks taught in the banking courses were closely related to teller tasks. For this reason, the teller position was the source of information for this research. The research answered the following questions:

1. What are the teller tasks taught in the high school banking courses?
2. What is the importance of the tasks, as perceived by school bank managers, to the training of students for employment in teller positions?
3. What are the tasks performed by tellers in financial institutions?
4. What is the importance of the tasks, as perceived by tellers, to the performance of the duties of the job?



5. To what extent do the teller tasks taught in the high school banking courses match the tasks performed by tellers in financial institutions?

6. To what extent do tellers and school bank managers perceive the importance of the tasks similarly?

#### Need for The Study

A study of the tasks taught in the high school banking courses was needed to determine if they were consistent with tasks performed by tellers in the workplace. According to Wells (1987, p. 26):

It is important that students receive instruction which will qualify them for initial employment and prepare them to adapt to necessary changes. The instructional material in business education must be current.

Several different tools and techniques were used to conduct the necessary local assessment of school programs. Job skills, task analyses, and models of research completed on curriculum were available for use (Dierks & Donnel, 1981, p. 99).

The local high school banks serves as laboratories to train students to become skillful in the handling of money and financial records. Students become familiar with simple recordkeeping as a part of the course. The training offered in these courses may or may not match skills or tasks performed by tellers in financial institutions. To date,

the researcher was not aware of any assessment that has been made to determine the relationship between the tasks taught in the banking courses and the tasks performed by tellers in financial institutions.

Newspapers in the metropolitan, DC, area advertise vacancies regularly for tellers' and cashiers' positions. Students who complete the banking courses should be able to meet entrance requirements for these jobs. The report of the National Conference on the Future of Business Education (Friedheim & Hargrove, 1985, pp. 1,3) stated:

Business education programs prepare workers to enter the largest occupational group in the labor force. This group includes, for example, bank tellers, bookkeepers, accounting clerks, cashiers, secretaries, typists, and computer operators. . . . The majority of new jobs created in America are in small companies--companies where fewer than 100 persons are employed. These companies . . . rely on America's educational system to deliver the skilled minds and hands to their doorstep.

#### Significance of The Study

To ensure that students receive the best training possible in preparation for work in the year 2000, periodic evaluation or assessment of business education programs is essential. A need exists to assess the banking program to determine the extent to which banking skills students develop are actually those used in the workplace. Alexander and Echternacht (1990, p. 54) made this statement about changes in job roles and educational processes:

Job roles are changing so also must the educational process change to prepare individuals to function in those roles. Business educators must research current labor market requirements, review the present curriculum, follow up graduates to determine the relevancy of the curriculum, and modify the curriculum to reflect current job requirements.

According to the U.S. Department of Labor (1990, p. 249), the trend in business and office employment indicates that for tellers, jobs are expected to increase more slowly than the average for all occupations through the year 2000. However, qualified applicants should have good prospects for both full-time and part-time employment as a majority of the job openings for tellers are expected to be created by replacement needs. Increased use of automatic teller machines and other electronic equipment is the reason growth is not expected to keep pace with overall employment growth in banks and other savings and credit institutions.

As indicated in a report by the Government of the District of Columbia (1991, pp. 1-2, 13):

The District of Columbia should add 120,000 new jobs between 1986 and 2000, giving the city an employment base at the turn of the century of about 817,000 jobs. This means that there will be about 1.3 jobs for every person living in the city, up from 1.1 jobs in 1985. By 2000, there will be more than 2,800,000 workers in the metropolitan area. Professional and technical workers will be the dominant occupational group-- numbering about 750,000 or about 27% of all area workers. The second biggest occupational group will be clerical workers--26%, followed by service workers--15.1%. Of the high demand occupations, it is estimated

that bank tellers in the Washington, DC, area will increase from 11,666 in 1985 to 16,076 in 2000; cashiers will increase from 30,600 to 47,950.

In addition, the report by the Government of the District of Columbia (1991, p. 3) contained comments about the future outlook for the teenage worker:

The teenage population in the District of Columbia will fall by 12,000 between 1985 and 1995, but will increase for the following five years. Consequently the small supply of younger workers needs to be well educated and trained to prevent critical bottlenecks from developing in the availability of higher skilled workers, such as engineers, scientists, technicians and craftsmen.

These predictions of future opportunities showed an increasing need for workers in banking institutions. The economic stability of the locality depends upon the effectiveness of its resources to meet the labor needs of business and industry. To provide these resources, the school system offers comprehensive educational programs so that all students have the opportunity to attain skills and knowledge that will enable them to become useful citizens.

#### Delimitations

1. This study was restricted to tellers in financial institutions located in Washington, DC.
2. This study was limited to the 11 comprehensive high schools in the Washington, DC, area that have bank laboratory facilities.

3. This study was limited to those branches of financial institutions that agreed to permit tellers to respond to items on the survey instrument.

4. The names of the school system and the school employees were not used in any written or oral presentation of the research due to restrictions imposed by school officials.

5. Participation in this research was strictly voluntary on the part of the respondents.

#### Definitions

Banking I and Banking II. Laboratory banking courses in the business education department in a selected public school system in the Washington, DC, area. Students enroll in these courses for skill acquisition in financial management techniques and strategies.

Developing a Curriculum (DACUM). An approach to occupational analysis that brings a committee of experts together under the leadership of a trained facilitator. They use modified brainstorming techniques to specify in detail the tasks that successful workers in their occupation must perform (Carnevale, Gainer, & Meltzer, 1990, pp. 4-23).

Financial institutions. Branches of banks, thrifts and credit unions located in Washington, DC.

High school bank. A facility within the high school that is physically organized similar to a commercial bank where students and school personnel complete school related financial transactions.

School bank manager. A teacher responsible for the management and control of the school bank facility. In addition, the teacher facilitates learning activities for students who enroll in the banking courses.

Task. A unit of work activity which constitutes logical and necessary steps in the performance of duty. A task has a definite beginning and ending point in its accomplishment and generally consists of two or more definite steps (The Research/Curriculum Unit for Vocational and Technical Education, 1989, p. viii).

Task analysis. The process of analyzing all the skills and knowledges that should be taught (Reigeluth, 1983, p. 24).

### Organization of The Study

Chapter 1 presents the introduction to the study, the procedures of the high school banks, the statement of the problem with research questions, the need for the study, the significance of the study, delimitations, and definitions of terms.

Chapter 2 presents the literature review of procedures and techniques for improving curricula in business education utilizing a task analysis approach. Summaries of studies, from a historical and futuristic perspective, are presented which enumerate criteria for curriculum improvement.

Methodology used in conducting the study is described in Chapter 3. The chapter covers the design of the study, research questions guiding the study, population and sample, instrumentation, methods of data collection, and data analyses.

Chapter 4 presents the general report of the research findings.

Chapter 5 contains the summary of the study, conclusions, and recommendations.

## CHAPTER 2

### REVIEW OF THE LITERATURE

A review of the literature was conducted to conceptualize the basic problem of correlating tasks taught in the high school banking courses with those performed by tellers in financial institutions. The literature was grouped into categories that (a) summarized the implications of the occupational trends for tellers and business education training programs, (b) conceptualized task analysis as a tool for program improvement, and (c) incorporated workplace basics into program development and improvement.

#### Implications of the Occupational Trends for Tellers and Business Education Training Programs

Technological changes impact the workplace and are felt by employees across occupational lines. Prospective employees need training that will translate into a new way of life and a new work environment. Consequently, training programs should not remain static. They should be updated to meet the revolutionary informational challenges of business and industry in a global economy.



Banking is one of the main focal points of the world's economy. Bank transactions are conducted almost anywhere and at any time. The changes in bank services are due primarily to the impact of technology. Automated teller machines, home banking via microcomputers, and office automation have affected banking occupations.

Leontief and Duchin (1984, p. 204) examined the impact of automation in the banking industry on employment between 1963 and 2000. The researchers designed a model of the probable effects of automation on the demand for tellers. The model revealed: Automated transactions machines (ATMs) . . . will

have significant impact on the labor requirements for human bank tellers. . . . The effectiveness of ATM's in reducing waiting lines and extending banking hours allowed banks to install 1900 ATM's by 1980. . . . Larger banks can more easily justify the purchase of ATM's, while for many small and medium-sized banks, the relatively high fixed costs of the equipment are not offset by the savings in labor costs at current volumes of business--a factor that retards the diffusion of the machines. . . . Large banks with assets in excess of \$500 million employ almost 50% of all bank employees.

Direct displacement of production workers by specific items of automated equipment will, at least in the initial stages, be offset by increased investment demands for capital goods. Therefore, production workers can be expected to maintain their share of the labor force.

According to the Dictionary of Occupational Titles (1977), entry-level positions in financial institutions were tellers, stenographers and clerks, interview clerks, and typists. This classification structure was taken into consideration when business education curricula were developed.

In business education programs, training in banking skills and techniques can be found in instructional modules within subjects such as office simulation, secretarial administration and office specialist, computerized accounting occupations, general business, business arithmetic, office procedures, and recordkeeping. Banking skill development through a laboratory facility was unique in a public school system in the Washington, DC, area.

The Occupational Outlook Handbook (U.S. Department of Labor, 1990, pp. 248-249) indicated there were 522,000 teller jobs in 1988--378,000 in banks; 101,000 in savings and loans; 41,000 in personal credit institutions; 1,000 in mortgage bankers, brokers, and other credit agencies; and 1,000 in holding and other investment offices and security and commodity brokers, dealers, exchanges, and services. Experienced tellers may advance to head tellers or customer service representatives. Banks encourage upward mobility by providing access to education and other sources of

additional training. Outstanding tellers who have some college or specialized training offered by the banking industry may be promoted to managerial positions. Other workers with similar duties include new accounts tellers, cashiers, toll collectors, post office clerks, auction clerks, and ticket sellers (U.S. Department of Labor, 1990, pp. 248-249).

Along with the increase in program offerings and diversity, world events influence life and the workplace into the distant future. Because of rapid and enormous changes in business and industry, the future direction for business education must encompass broad instructional planning to ensure compatible curricula designs (Hall, 1990, pp. 1-11).

A study was conducted that showed how jobs in the banking, textile, apparel and business industry will change in the future. The conclusion was that jobs of the future will require more skills. Bailey (1990, pp. 10-15) argued that increased international competition, changes in both consumer demand and industrial structure, the capability of industrial structure, and the capability of technology to help firms meet these challenges were largely preventing firms from using technology to reduce skills. He found that tellers were most likely high school graduates, while those banking employees who serve retail customers usually had

postsecondary education. Technological devices made it possible to eliminate the lowest level of jobs in banks, but the same technology also increased the level of service, thus giving middle-level employees more responsibility (Bailey, 1990, pp. 10-15).

There is an indication that American businesses now and for the remainder of the 20th century will face a very different labor market than the one to which they have been accustomed. For one thing, the traditional sources of labor are drying up. The new workforce will include a higher percentage of women, minorities, disabled and the economically disadvantaged. Businesses must confront these inevitables if they are to satisfy their labor needs (Johnston & Packer, 1987).

While exploring the role business education will play in turning this challenge into opportunity, there are major trends taking place in the workplace. Vocational education will play a key role in keeping business supplied with capable and quality workers. Opportunity 2000 (U.S. Department of Labor, 1988, pp. 3-14) outlined these trends:

1. The number of workers will fall. The United States' overall population is expected to reach 275 million, a 15% increase of 1985. This rate of increase indicates that, by the 1990s, the United States' population will be growing more slowly than at any time in the nation's history, with the exception of the decade of the Great Depression. Mirroring the nation's slowly growing

population, the labor force is also expected to increase more slowly than at any time since the 1930s.

2. The average age of workers will rise. Between now and 2000, the number of workers between the ages of 35 and 54 will increase by more than 25 million. Retirement-age workers have been growing in demand by industry and, no doubt, will be a source of labor that will be turned to in the future.
3. More women will be on the job. Social changes during the late 1960s and early 1970s, coupled with genuine financial necessity, allowed women to gain a foothold in the business world. The majority of new entrants into the labor force will be women and minorities. By year 2000, about 47 percent of the workforce will be women.
4. One-third of new workers will be minorities. By 2000, members of American minority groups, especially blacks and Hispanics, will be less of a "minority" in the workplace than ever before.
5. There will be more immigrants than any time since World War I. Despite language and cultural differences, new residents, primarily from Latin America and Asia, are quickly finding their niche in American society, some as entrepreneurs, some as workers in family businesses, but nearly all of those of working age as members of the labor force.
6. Most new jobs will be in services and information. As factories become more mechanized and automated, a greater percentage of each product's value can be attributed to various services occurring before and after the product is manufactured.
7. New jobs will require higher skills. Most jobs in the 21st Century will require postsecondary education.

To determine the competencies to be included in curriculum guides and instructional modules, many states have undertaken task analyses to assist them in making that

determination. The literature revealed that task analyses of business education courses have been conducted within the past 10 years by the departments of education in North Carolina (North Carolina State Department of Public Instruction, 1985), Virginia (Virginia State Department of Education, 1985), Oregon (Oregon Department of Education 1990), and Wyoming (Fairchild & Gilligan, 1982). From these analyses, curriculum guides have been developed to assist local school districts in making program changes and improvements.

Curriculum guides developed by Arizona (Snyder, 1986), Delaware (Delaware State Department of Public Instruction, 1987), and Oklahoma (Oklahoma State Department of Vocational and Technical Education, 1988) were relevant to the problems of this study. These guides related to banking and financial services occupations. Skills identified were performed by such entry-level workers as the teller, customer service representative, account service clerk, records clerk, charge card authorization operator, proof operator, and new account representative. The description of each task included a performance objective with conditions, evaluation, and standard of performance.

These guides were developed to assist teachers in secondary and postsecondary vocational programs to develop a course of study, structure learning sequences,

determine standards of performance, improve curriculum, evaluate curriculum and instruction, track individualized instruction, perform self-evaluations, develop up-to-date job descriptions, use the information as discussion tools with adversary committees, and perform administrative program evaluation.

The American Institute of Banking (AIB, 1991), a service of the American Bankers Association, provides a wealth of bank-specific educational and training programs in which more than 200,000 bankers annually enroll. There were flexible options from which enrollees may choose, including courses, seminars, and correspondence study. AIB conducts the world's most extensive industry-sponsored adult education program.

AIB (1991) developed a special teller training series designed to train teller trainees and enhance the skills of tellers in need of additional training. The training series contain seven handbooks with Leaders' Guides and videotapes as follows:

1. The Industry and Your Bank
2. Teller Operations
3. Serving Your Bank's Customers
4. Knowing Your Bank's Products
5. Selling Your Bank's Products

6. Security and Loss Prevention

7. The Successful Teller Handbook

Tasks and Task Analysis

This research involved the matching of tasks taught in high school banking courses with those performed by tellers on the job. To do this, the initial step in the process of task analysis was conducted to identify the tasks. A discussion of the task analysis process is appropriate in support of the techniques utilized in this study.

Miller (1953) and Gagne (1965) were the first to pioneer the concept of task analysis. Current procedures for task analysis differ somewhat from Gagne's work in that he recommended that the learning task must be broken down into capabilities that are not themselves the task, but are contributors to the performance of the task. Gagne's theory is based on the construction of learning hierarchies for the purpose of systematically organizing information to be learned through an analysis of the final task or behavioral outcome of the instruction (Hanclosky, 1986, pp. 1-11).

Carlisle (1983, p. 31) and Kennedy, Esque, and Novak (1983, p. 11) agreed that a task analysis procedure was made of several components: task inventory, ordering,



refinement, needs, goals, objectives, learning hierarchy, learning taxonomy, training considerations, and product development specifications. Carlisle found little consensus in the definition of the term task analysis. Carlisle (1983, p. 31) made this comment about the definition:

Lack of consensus on definition is a characteristic of underdeveloped technologies which certainly applies to task analysis. . . . It would seem difficult to consistently achieve the stated advantages of task analysis when little consensus exists concerning what it is and how it should be used.

Davies (1973, pp. 73-85) found that task analysts described a task in terms of its component subtasks in order to make predictions about the design which will best reduce error in human performance.

Carlisle (1983, pp. 31-32, 34) defined task analysis in terms of a process involving three different steps: breaking the task content down into constituent elements, looking at relationships between the task as it is currently done and how it should or could be done, and restructuring the tasks in accordance with the underlying principle or optimal outcome of the instruction.

The task analysis model designed by Resnick, Wang, and Kaplan (1973, pp. 610-679) resulted in a task hierarchy with the terminal task on top, sequentially related

subtasks next, and a hierarchy of learning tasks below each subtask.

Merrill's (1973, pp. 109-125) model of task analysis encompassed detailed procedural steps starting at the level of operationally defined concepts and relational operators. Operations were sequenced in a flow-chart with decision points or branches. This approach employed the techniques of observation of overt behavior and thinking aloud of covert behavior. Merrill's position was that both hierarchic analysis and informational processing analysis may be used to supplement each other.

Gard (1972) and Gilbert (1972, 1978) presented task analysis models that apply to industrial training tasks. In Gard's model, there are four steps: clarify tasks as activities, inputs, or outputs; organize a hierarchy; assign a taxonomy value; and achieve expert consensus of the analysis. Gilbert's (1972) procedure focused on cost effectiveness considerations in achieving human competence. He was concerned with reducing training costs by isolating deficiencies with a knowledge and learning taxonomy matrix when suggesting training in the deficient areas.

According to Kennedy, Esque, and Novak (1983, p. 15), there are differences between task analysis approaches depending

on whether the application was education or industrial. People in industry approach task analysis differently from people in education, probably due to the nature of the tasks and an emphasis on cost-benefit analysis. The educational techniques focused on jobs which were then analyzed into tasks and subtasks. . . . Educational applications worked at a cognitive level, while industrial training models worked on a directly observable level of behavior.

Schlenker (1983, pp. 7-8, 10) discussed reasons for conducting task analyses. The reasons he gave were:

Task analyses are conducted so that instructionally important tasks may be identified, instructional time may be conserved, instructional costs may be kept at a minimum . . . and behaviors listed from which student centered instructional objectives may be derived.

Task analyses may be conducted . . . anywhere that yield a job, course, training program and educational program related task information. . . . The largest group of individuals who conduct task analyses, however, are classroom teachers, college professors, and vocational trainers. This group of people . . . conduct a task analysis each time they set out to change courses, develop new courses, or education and training programs based upon some observed needs.

In addition to reasons for conducting a task analysis, Schlenker (1983, pp. 11, 18, 20) identified the three major phases of task analysis: task listing, task detailing, and task analysis worksheet construction.

1. Task Listing. The investigator (the one conducting the analysis) poses one major question: what tasks should competent people be able to perform? These tasks may be cognitive, psychomotor, affective, or any combination thereof. It is a simple listing process regardless of whether it concerns jobs, educational programs, training programs or individual courses.

2. Task Detailing. It involves the breakdown of tasks listed on the Task Listing Sheet into subsub-tasks.
3. Task Analysis Worksheet. It provides space to describe how to do each sub-task, why the sub-task is done, and the skills the performer must possess if he or she is to successfully complete the sub-task.

Schlenker concluded that:

Task analysis, an extremely important part of the educational and training process, is a link between what competent individuals need to do and what they are taught to do in courses and training and educational programs.

There is justification for performing a skill analysis.

Follettie (1980, pp. 3-34) said:

A task analysis is really a skill analysis whose product is a set of generic tasks considered to exhaust or sufficiently sample a skill domain. Further, instructional explication or completeness is an important factor in achieving instructional effectiveness. A task specification mechanism is required that can be used to discern compelling forms of instructional explication that support the effectiveness and efficiency facets of productive instruction.

A study was conducted to compare the advance organizer and concept elaboration models of instruction with a task analysis approach. Included in the study were 92 undergraduate teacher-education students and summer school students. Both groups were exposed to one of three instructional treatments. Gagne's cumulative learning theory was used to shape the study. Each level of learning was designed as being a prerequisite to the one above and

must be learned before the student moves up the hierarchy to successfully complete the desired task. The results of the study indicated that the task analysis approach seemed to be a more effective method of instruction (Hanclosky, 1986, pp. 1-23).

The feasibility of classifying occupational tasks as a basis for a better understanding of occupational transferability of job skills was examined by Ashley and Ammerman (1978, pp. 1-55). They concluded that tasks can be individually classified and that at least some classification schemes produced reasonable agreement for a wide assortment of types of tasks. Human attributes provided the greatest usefulness in enabling meaningful clusters of related occupations to be generated. Among the human attributes were such vocational and cognitive capabilities as arithmetic computation, clerical, verbal communication, social relationship, perception, comprehension, expressional and ideational fluency, intelligence, originality and reasoning.

Jonassen and Hannum (1986, pp. 1-12) conducted an intensive review of the literature and came up with some 30 different task analysis methodologies. Some of their brief summaries of these methods follow:

Bloom's (1956) taxonomy. Bloom and his colleagues . . . spent several years developing a taxonomic classification of cognitive and affective

behaviors for purposes of test design. A taxonomy of psychomotor domain was added later. . . . These taxonomies later became the primary means for analyzing learning tasks. They describe in detail increasingly complex forms of cognitive behaviors (from knowledge to evaluation), affective behaviors (from receiving to articulation of a value concept), and psychomotor behaviors (from imitation to naturalization). These remain the most detailed descriptions of learning behaviors, still popular with many educators.

Delphi technique (Dalkey, 1963). In selecting the tasks/content to be taught, it is often necessary to place the inventory in priority order. This often requires the informed judgments of subject matter experts. One of the most popular techniques for generating that data is the Delphi technique, in which sets of comments/ beliefs/questions are submitted to an anonymous group of subject matter experts for their judgements. Their responses are analyzed and summarized, and then become the questions for the next round of judgements. This iterative judgement-feedback cycle is continued until the panel reaches consensus. The result represents the convergent thinking of a group of experts. It can be a tedious process, but it is one of the most systematic for collecting judgements.

Job task analysis. In the context of developing vocational instruction, the task analysis procedures focus on job descriptions--what a worker does under the conditions that the job is normally performed, rather than what you would like him/her to do. The procedure requires the design to list all of the tasks in a job and the steps included in each task; i.e., what a person does when performing the step, the type of performance involved . . . and the expected difficulty in learning it. From the task analysis, the designer derives course objectives after first determining what the learners already know. Course objectives, then, describe those things that learners should be able to do at the end of the course. Except for the determination of the type of performance required by step, this is a vocational behavioral analysis technique that focuses on the inventory function.

Vocational Task Analysis. Hershbach (1976) proposed a three-step task analysis model that includes a task inventory, a task description, and a task analysis. In the task inventory, the designer identifies the steps, or task elements and sub-elements, using observation and interview techniques. Analysis of tasks qualifies the task description and analyzes the behavior using learning hierarchy analysis . . . or Bloom's taxonomy. . . . No explicit technique is described for sequencing tasks, except those implied by the task analysis step. Hershbach essentially applies classic task analysis procedures to industrial education.

Arizona (Snyder, 1986), Delaware (Delaware State State Department of Public Instruction, 1987), and Oklahoma (Oklahoma State Department of Vocational and Technical Education, 1988) have developed curriculum guides for banking and related financial services occupations. These guides identified skills performed by such entry-level workers as the teller, customer service representative, account service clerk, records clerk, charge card authorization operator, proof operator, and new account representative. The description of each task included a performance objective with conditions, evaluation and standard of performance. These guides were developed to assist teachers in secondary and postsecondary vocational programs in developing a course of study, structuring learning sequences, determining standards of performance, improving curriculum, evaluating curriculum and instruction, tracking individualized instruction, performing self-evaluations, developing up-to-date job

descriptions, using information as discussion tools with adversary committees, and performing administrative program evaluation.

Hesse and Nijhof (1988, pp. 1-25) studied cost-effectiveness of the task inventory and the Developing a Curriculum (DACUM) processes to identify future changes in the technology used in the publishing industry and the resultant changes in jobs. According to their findings, both methods achieved their goals and gave a good overall picture of the occupation. However, the DACUM process required less staff time. The task inventory demanded research personnel who were unnecessary for the DACUM workshops. DACUM requires more money for accommodation and travel expenses. DACUM made the new technology in the publishing occupations more visible while the task inventory method required more time and costs than the DACUM method. Since efficiency is a key element of cost-effectiveness, the DACUM method can be considered more cost-effective than task inventory analysis.

Reap (1977, pp. 1-151) studied job tasks of the beginning accounting and bookkeeping worker compared with the content of the high school accounting and bookkeeping curriculum. The problem was to identify the discrepancy between work and training programs in accounting and bookkeeping. To determine the job tasks performed by



beginning accounting and bookkeeping workers, the researcher found 64 studies pertaining to the content areas of the high school accounting and bookkeeping curriculum. The problem was to identify the discrepancy between work and training programs in accounting and bookkeeping. To determine the job tasks performed by beginning accounting and bookkeeping workers, the researcher found 64 studies pertaining to the content areas of the high school accounting and bookkeeping courses. Sixteen of these studies contained specific information about job tasks. A list of 150 job tasks was drawn from New Office and Business Education Learnings System (NOBELS).

To determine the job tasks included in the conventional high school accounting and bookkeeping curriculum, the textbooks commonly used in the classroom were identified and analyzed. The job tasks lists were compiled from two South-Western textbooks. Reap (1977) found no relationships at any level of significance when statistical applications were applied to the two lists grouped by generalized accounting categories. There was not a significant relationship at any level when statistical applications were applied to the two lists grouped by specific job tasks common to both lists. Of the 150 job tasks on the list representing real work, only 36 of these could be found in the textbooks

representing the high school curriculum. Fifty-two percent of the textbook volume contained none of the job tasks taken from the list representing real work.

Reap (1977, pp. 1-151) concluded that job tasks of the beginning accounting and bookkeeping worker require little or no understanding of the principles of debit and credit. Job tasks of the duties of the beginning worker were more concerned with segments of the accounting cycle than with tasks requiring understanding of the whole cycle. Few of the job tasks required understanding of those steps in the cycle past the trial balance. The tasks covered in the high school curriculum have no significant relationship to the job tasks necessary for employment in beginning accounting and bookkeeping occupations. The textbooks selected as representative of the high school curriculum are nonfunctional for the purpose of preparing students for occupational employment as beginning accounting and bookkeeping workers.

A catalog of performance objectives and performance guides was prepared as a result of a task analysis of data entry occupations. Duties and tasks related to work performed by data entry operators were identified and included in the inventory which served as the basis for the survey instrument. The catalog, developed under the auspices of Vocational-Technical Education Consortium

of States, is a ready source of job-related data beneficial to vocational administrators, curriculum developers, instructors, and other users (Kirby & Oliver, 1983, pp. 135-142).

Kirby and Oliver (1988, pp. 14-23) conducted another study which focused on task analysis of information processing specialist occupations. The problem addressed in this research was to determine the duties and tasks performed and the tools, equipment, and work aids used by administrative support personnel whose work was redefined through the use of word processing and related technology in their jobs. The results of the research were used to develop a catalog of performance objectives and performance guides. The researchers combined into a revised catalog the documents the state of Maryland produced in 1979 and 1980 in Word Processing Correspondence Specialist and Word Processing Administrative Support Secretary. The revised document was renamed Information Processing Specialist. The preparation of the revised catalog addressed specific occupational training materials needs of Virginia secondary students. The research findings suggested that word processing supervisors were actively involved in performing all tasks in the catalog and that word processing equipment was being

used increasingly in decentralized locations by secretaries.

The Information Processing Specialist catalog is a source of job related data for planning and implementing competency- or performance-based instruction. Other uses of the catalog were to aid in: planning and implementing articulation between program levels, evaluating instructional programs, source of job-specific data for developing competency-based curricula or as a source of core content for program revision or development, planning and sequencing instruction, evaluating learner achievement, and enhancing vocational training (Kirby & Oliver, 1988, pp. 14-23).

### Incorporating Workplace Basics into Program

#### Development and Improvement

Program improvement will be incomplete unless measures are taken to include skills employers have identified as essential to employment success. These basic skills are not a separate entity in the teaching-learning process but an integral component. The workplace is changing and the skills of the employees must change also. Many workers do not have the basic skills essential for the changing workplace.

Carnevale, Gainer and Meltzer (1990) conducted a three-year study of methods and procedures to assist employers in establishing training programs to reduce the basic skill deficiencies of workers. The manual designed by these researchers provided basic training methodology that can be used by those who are responsible for providing private and public training programs--secondary, postsecondary and adult educators.

Darcy (1981, pp. 16-22) also endorsed teaching basic skills in reading, writing, speaking, listening, reasoning and computing to help students make the transition from education to work.

Workplace basic skills employers are seeking were defined by Carnevale, Gainer and Meltzer (1990) as:

1. Learning how to learn is the most basic of skills because it is the key to lifelong learning. Equipped with this skill, more can achieve competence in all other basic workplace skills, from reading through leadership. Without this skill, the learning process is difficult and frequently inefficient, frustrating would-be learners and leading them to give up on learning tasks.
2. Reading, writing, and computation are, as has been noted, fundamental to achieving success in the workplace. The workplace of the past was one where those with limited academic skills could still succeed because many jobs required only the ability to learn a regularized or repetitive task with little or no machine interaction. In that fast-disappearing workplace, illiteracy and innumeracy could be hidden or ignored.

3. It is through listening and oral communications that we most frequently interact with others. Most workers spend much of their day in some form of direct communication. In person and by phone, they communicate with each other about procedures and problems and they relay information to and receive it from customers and suppliers. Job success is strongly linked to good communication skills. In fact, recent studies indicate that only job knowledge ranks above communication skills as a factor in workplace success.
4. Problem solving skills include the ability to recognize and define problems, to invent and implement solutions, and to track and evaluate results. . . . Creative thinking in the workplace generally relates to creative problem solving or innovative processing.
5. Organizations traditionally have viewed self-esteem, motivation, goal setting, and employability\career development as skills an individual should acquire outside the workplace. But the demands of today's evolving workplace are influencing employers to recognize that when workers do not have these skills, organizations must provide training opportunities to build them.
6. Whenever people work together, successful interaction depends on effective interpersonal skills, focused negotiation, and purposeful teamwork. The quality of these three factors defines and controls working relationships.
7. Finally, employers want employees to have a basic level of skill in organizational effectiveness and leadership. To be effective in an organization, employees need a sense of its workings and of how their actions affect organizational and strategic objectives. A worker skilled in discerning the forces and factors that may interfere with the organization's ability to carry out its tasks can become an accomplished problem solver, innovator, and team builder (Carnevale, Gainer, & Meltzer, 1990, pp. 3-5).

When identifying what competencies should be taught and the level of performance to be achieved, an effort must be made to determine the jobs for which students are being prepared, the tasks required for each job classification, and the level of competence required for job entry as well as advancement on the job. Instructional materials and activities should be developed that will prepare students to perform at an acceptable level. Entry-level technical skills are important for initial employment in the workplace; but, to be successful and remain successful, students must acquire the workplace basics previously described. The literature showed that researchers and professionals agree and conclude that such basic skills must be taught not in theory only but in a workplace context (Alexander & Echternacht, 1990; Brown & Hopkins, 1990; Everett & O'Neil, 1990; Fairchild & Gilligan, 1982; Luft & Schoen, 1986; Porreca & Stallard, 1975; Pritz, 1988).

In a paper presented by Burns (1983), the experience Chase Manhattan Bank had in hiring a diverse group of college graduates and preparing them for entry-level managers was discussed. Trainees were screened for six mental abilities that correlated with success: memory, learning speed, logical reasoning, divergent thinking, convergent thinking, and affinity for numbers. About

one-third of the trainees had majors in humanities and over two-thirds had majors in liberal arts and sciences. It was concluded that hiring students with diverse academic backgrounds and then providing specialized training were effective in an organization having a wide variety of jobs and career paths. Focusing on specific mental abilities is critical for recruiting, training, and job success. Job applicants need logical reasoning ability at the time of recruitment. Other skills can be developed through training.

A discussion of workplace basic skills was included in the literature review because of the implications for program and course improvement. The results of this study may suggest a need to make changes in the curriculum. Employers have identified certain skills which many workers have a deficiency. Consequently, training programs and educational courses should contain instructional activities and materials that will afford students opportunities to acquire these skills. The banking courses should provide basic experiences necessary for students to become efficient employees.

#### Summary

This chapter has dealt with literature related to the proposed study. The areas addressed were (a) the



occupational outlook for tellers and training, (b) the definition and process of task analysis, and (c) the infusion of workplace basics in the curricula.

The review of literature provided the rationale for the need to conduct this study. The literature revealed that:

1. The basic steps in the task analysis process have been used by educators to design, construct, and improve educational programs and curricula.
2. Changes in the workplace must be taken into consideration by educators in the development and improvement of a practical competency-based curriculum.
3. Workplace basic skills should be taught not in theory only but in the context of the work environment. These skills are necessary if the worker is to be successful on the job.
4. The outlook for employment opportunities in teller positions is promising for entry-level employees.
5. Task analysis or Developing a Curriculum (DACUM) should be performed prior to curriculum design, development, and improvement.

**CHAPTER 3**  
**METHODOLOGY**

This chapter describes the methodology and procedures used in the study. The chapter includes discussions of the (a) research design, (b) population and sampling, (c) development of the survey instrument, (d) distribution of the survey instrument, (e) collection of the data, and (f) data analysis.

**Research Design**

This study was characterized as survey research, and a descriptive survey procedure was the basis for the research. According to Kerlinger (1986, p. 279):

Research design is the plan and structure of investigation so conceived as to obtain answers to research questions. The plan is the overall scheme or program of the research. The structure is the paradigm or model of the relations among the variables of a study.

An important part of this plan involved identifying the teller tasks that were used in constructing the survey instrument.

**A Catalog of Performance Objectives and Performance Guides for Paying and Receiving Bank Teller** (Research/Curriculum Unit for Vocational and Technical Education, 1989) was the major source of the teller tasks contained in

the survey instrument. This instrument was developed and used to obtain data to determine if the tasks taught in the high school banking courses matched tellers' tasks. This assessment provided insight into the relevancy of the bank training curriculum in the high schools. The instrument also provided information on the importance of the tasks as perceived by tellers and school bank managers.

The survey instrument was used to gather data to answer the research questions:

1. What are the teller tasks taught in the high school banking courses?

2. What is the importance of the tasks, as perceived by school bank managers, to the training of students for employment in teller positions?

3. What are the tasks performed by tellers in financial institutions?

4. What is the importance of the tasks, as perceived by tellers, to the performance of the duties of the job?

5. To what extent do the teller tasks taught in the high school banking courses match the tasks performed by tellers in financial institutions?

6. To what extent do tellers and school bank managers perceive the importance of the tasks similarly?

### Population and Sampling

Two groups of subjects were used in this study. Group I was composed of 11 school bank managers from the 11 high schools that offer the laboratory banking courses. Group II was composed of all tellers employed in branches of the financial institutions that agreed to participate in the research.

The 1991-1992 Chesapeake and Potomac telephone directory for Washington, DC, was the main source of the list of financial institutions. Polk's Bank Directory, (1991), The Rand McNally International Bankers Directory, (1986), The U.S. Savings and Loan Directory (1986), and Thomson Credit Union Directory (1991) were reviewed. However, information contained in these directories did not reflect the recent mergers and other changes that had taken place in the financial industry in Washington, DC.

The researcher randomly selected 75 branches of banks, credit unions, and thrifts. Since there were over 300 branches of financial institutions in Washington, DC, the number chosen represented one fourth of all the branches in the city. The 75 branches, randomly drawn, were the source of teller participation in the study.

The following procedure was used to identify the managers of the selected branches. The names of the managers of the selected branches were obtained from

directories and by telephone calls. A letter was sent to each manager extending an invitation for tellers to participate in the study. To expedite the collection process, managers were requested to designate a special employee to serve as coordinator. Responses to these letters determined the size of the teller population for this study. In order for the school bank managers to participate, it was necessary to obtain permission from the Evaluation Branch of the Office of the Superintendent of the public school system. After getting permission from the appropriate official, the 11 school bank managers of the high schools with the laboratory banking courses were invited to respond to the survey instrument.

#### Survey Instrument Development

In designing the survey instrument, the researcher had to identify task items. A Catalog of Performance Objectives and Performance Guides for Paying and Receiving Bank Tellers (Research/Curriculum Unit for Vocational and Technical Education, 1989) provided the teller tasks contained in the survey instrument.

To be assured that the tasks list was comprehensive and clearly understood, the survey instrument was reviewed by head tellers of a bank and a credit union in Blacksburg, VA. Although the head tellers of the bank and the credit

union agreed that the list was a good representation of the tasks tellers perform in their jobs, six items were added by the head teller of the bank. The survey instrument was revised and the six items were added to the final version of the form.

The researcher was interested in determining the teller tasks taught in the courses and performed on the job. In addition, the researcher was interested in knowing the perception of school bank managers and tellers of the importance of the tasks to training of students and performing duties of the job, respectively. Therefore, the survey instrument contained two scales.

The first scale on the instrument solicited dichotomous responses of YES and NO. The second was a Likert-type scale in which respondents were requested to make decisions about the relative importance of the tasks. The scales below were used by members of Group I (school bank managers) and Group II (tellers): (a) YES, NO; and (b) very important, important, somewhat important, and not important. These scales were used to answer the research questions.

Members of Groups I and II were directed to indicate if the task was taught and performed, respectively, as follows:

YES indicated the task was taught in the banking courses or was performed by tellers.

NO indicated the task was not taught in the banking courses or was not performed by tellers.

Members of Groups I and II also were directed to indicate the level of importance of each task as follows:

VI indicates very important

I indicates important

SI indicates somewhat important

NI indicates not important

#### Survey Instrument Distribution

Copies of the survey instrument were coded and delivered to the designated contact person in each participating branch. Detailed instructions, with an example for completing the form, were included in the packet each respondent received. The contact person distributed and collected the forms from the tellers. These forms were mailed to the researcher.

The researcher gave a verbal reminder to those contact persons who had not collected the forms from the tellers. These contact persons were given one week to collect the forms. Prior to the deadline date for pick up, the researcher telephoned the contact person as a reminder.

The survey instrument was coded and mailed to the 11 school bank managers along with a copy of the letter of

approval from the Evaluation Branch of the Office of the Superintendent. A 2-week deadline was indicated in the letter for the return of the form. Subsequently, a follow-up letter was mailed to all nonresponding school bank managers along with another copy of the survey instrument and a stamped, addressed envelope.

#### Data Collection

All returned survey instruments were filed under the code for each school and for each branch and credit union. A summary was made to determine the number and percentage of responses.

A summary table was made of the overall number and percentage of usable and nonusable returns collected for the study from school bank managers and tellers.

#### Data Analysis

A tabulation and descriptive summary was made of the biographical information for each respondent. The data were recorded in table form for each category: gender, education, and experience.

In order to make computer calculations, point values were assigned to each of the categories of responses on the survey instrument as follows:

1. One point was assigned to the rating YES.
2. Two points were assigned to the rating NO.



In addition, point values were assigned to each item on the 4-point Likert-type scale as follows:

1. One point was assigned to the rating very important.
2. Two points were assigned to the rating important.
3. Three points were assigned to the rating somewhat important.
4. Four points were assigned to the rating not important.

The percentage of school bank managers and tellers responding YES was computed for each task, and the tasks were tabulated and reported according to these percentages.

Mean scores of the importance of the tasks were computed for each task of the responses by the school bank managers and the tellers. The criteria listed below were selected to interpret mean scores for items on the survey instrument used by members of Groups I and II:

<u>Response Items</u>	<u>Mean Score Range</u>
Very Important	1.00 - 1.49
Important	1.50 - 2.49
Somewhat Important	2.50 - 3.49
Not Important	3.50 - 4.00

The following research questions were answered as the data were analyzed:

Question 1: What are the teller tasks taught in the high school banking courses?

This question required a tabulation and descriptive summarization of the data collected from the survey instrument. The survey instrument was distributed to the 11 school bank managers to determine their responses to each item. School bank managers indicated YES or NO by checking the appropriate column for each task. The responses were tabulated and reported according to the percentages responding YES.

Question 2: What is the importance of the tasks, as perceived by school bank managers, to the training of students for employment in teller positions?

School bank managers selected their choice responses to each item on the Likert scale. Mean scores were computed for each task and the mean score range was used to interpret the data. If a task has a mean score between 1.00 and 1.49, the interpretation was that the task was perceived as very important by the school bank manager.

A summary table of the interpretation of mean scores of responses by the school bank managers was prepared.

Question 3: What are the tasks performed by tellers in financial institutions?

This question required a tabulation and descriptive summarization of the data collected from the survey instrument. The survey instrument was distributed to tellers to determine their responses to each item. Tellers indicated YES or NO by checking the appropriate column for each task. The responses were tabulated and reported according to the percentages responding YES.

Question 4: What is the importance of the tasks, as perceived by tellers, to the performance of the duties of the job?

Tellers selected their choice responses to each item on the Likert scale. Mean scores were computed for each task and the mean score ranges were used to interpret the data. If a task had a mean score between 1.00 and 1.49, the interpretation was that the task was very important. A summary table of the interpretation of mean scores of the responses by tellers was prepared.

Question 5: To what extent do the teller tasks taught in the high school banking courses match the tasks performed by tellers in financial institutions?

A statistical analysis of the responses was required to determine those tasks upon which both groups responded similarly. It was appropriate to compare percentage scores by using a phi correlation coefficient statistical

technique. According to Hinkle, Wiersma and Jurs (1988, p. 27), "Phi correlation is a special case of the Pearson's  $r$  in which both variables are nominal dichotomous variables."

Phi correlation coefficients were calculated over all the tasks, as well by individual items. The greater the value of the correlation coefficient, the stronger the relationship between the two variables. The interpretation of the degree of the relationship was based on the rule of thumb for interpreting the size of the correlation coefficient from Hinkle, Wiersma and Jurs (1988, p. 118).

.90 to 1.00	- Very high relationship
.70 to .90	- High relationship
.50 to .70	- Moderate relationship
.30 to .50	- Low relationship
.00 to .30	- Little, if any, relationship

Members of Group I and Group II were considered to have responded similarly if the value of phi was less than .30., meaning there was little relationship between the responses of the tellers and the responses of the school bank managers. If the value of phi was greater than .30, the groups were deemed to have responded differently. That is, phi greater than .30 means there was a relationship between the responses of the tellers and the responses of the school bank managers. When the responses differed, the value of

phi was caused by the group with the higher percent level. Group responses matched if phi was greater than .30.

A summary table of the interpretation of phi correlation coefficients of the responses by school bank managers and tellers was prepared.

Question 6: To what extent do the tellers and school bank managers perceive the importance of the tasks similarly?

Mean scores were compared by using Pearson's correlation coefficient statistical technique. Pearson's correlation coefficients were calculated over all the tasks, as well as for each task. The interpretation of the degree of the relationship was based on the rule of thumb for interpreting the size of a correlation coefficient from Hinkle, Wiersma, and Jurs (1988, p. 118).

Members of Group I and Group II had responded similarly if the value of Pearson's  $r$  was less than .30. There was little, if any, relationship between the responses of school bank managers and the responses of tellers. A match existed if Pearson's  $r$  was less than .30. If the value was greater than .30, the groups were deemed to have responded differently. When the responses differed, the value of  $r$  was resulted from the larger mean score of the the groups.

A summary table of the interpretation of Pearson's  $\chi^2$  of the responses by school bank managers and tellers was prepared.

#### Summary

This chapter on methodology included the following topics: (a) research design, (b) population and sampling, (c) survey instrument development, (d) survey instrument distribution, (e) data collection, and (f) data analysis.

The study was composed of two groups. Group I was the school bank managers, usually business teachers, of the selected public school system in the Washington, DC, area. Group II was a sample of the tellers of financial institutions in Washington, DC.

## CHAPTER 4

### RESEARCH FINDINGS

The problem of this study was to determine if the tasks taught in the high school banking courses matched tasks performed by tellers in financial institutions. In addition to providing statistical data relating to demographics, the discussion that follows addresses the six major questions raised in Chapter 1.

Two groups of respondents were required to conduct this research. Group I was made up of high school bank managers Group II consisted of tellers from financial institutions in Washington, DC.

At the beginning of this research, there were over 300 branches of banks, thrifts and credit unions in Washington, DC. Seventy-five branches, approximately 25%, were randomly selected from these financial institutions. Letters were sent to these branches requesting permission for tellers to participate in the study. Six banks indicated none of their branches would participate because of impending mergers and other changes that were taking place. Over 72 branches were affected by these decisions. All branches from these banks drawn in the original sampling process were replaced. Thirty-one of

the 75 branches chosen participated in the study, for a 41% response rate. Tellers in those branches that agreed to participate were asked to respond to the survey instrument. Survey instruments were distributed to 143 tellers (Table 1). They returned 113, for a response rate of 79%. There were 100 usable returns from tellers, for a response rate of 70% (Table 2).

School bank managers also were asked to participate in the survey. Of the 11 school bank managers who operated the high school banks, 10 responded for a 91% response rate (Table 1). One of those responding indicated that students were not being trained for positions in financial institutions. The survey form was not completed. One school bank manager did not respond to the request to complete the survey, even though follow-up letters and telephone calls were made.

A breakdown of the response rates by tellers and school bank managers was prepared (Table 1). A calculation was made of the number of usable and nonusable survey responses (Table 2).

Characteristics of the respondents were analyzed and reported in tabular form. One hundred tellers participated in the study--24 were males and 75 females (Table 3). All school bank managers and 10 tellers had earned 4-year college degrees. Sixty-nine tellers were high school



**Table 1**

**Number of Instruments Distributed and Response Rates**

<b>Group</b>	<b>No. Distributed</b>	<b>No. Received</b>	<b>Percent Response</b>
<b>School Bank Managers</b>	<b>11</b>	<b>10</b>	<b>91</b>
<b>Tellers</b>	<b>143</b>	<b>113</b>	<b>79</b>

**Table 2**

**Percentage of Usable Returns**

<b>Returns</b>	<b>School Bank Managers</b>		<b>Tellers</b>		<b>Total</b>	
	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>
<b>Returned, Usable</b>	9	82	100	70	109	71
<b>Returned, Not usable</b>	1	09	13	09	14	09
<b>Not returned</b>	1	09	30	21	31	20
<b>Total</b>	11	100	143	100	154	100

**Table 3**

**Gender of Respondents--Usable Returns**

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<b>Gender</b>	<b>School Bank Managers</b>	<b>Tellers</b>
<b>Male</b>	<b>2</b>	<b>24</b>
<b>Female</b>	<b>7</b>	<b>75</b>
<b>Missing data</b>	<b>0</b>	<b>1</b>
<b>Total</b>	<b>9</b>	<b>100</b>

---

graduates and had received postsecondary training through a technical school or a 2-year college (Table 4). Work experience for tellers ranged up to 19 years, with 68 having been on the job for 3 years or less. School bank managers had from 1 to 22 years of experience teaching the banking courses. Overall, they had been in the teaching field between 20 and 32 years (Table 5).

Number Cruncher Statistical System (Hintze, 1987)

software was used to make statistical computations required to answer the research questions. The results of these analyses are presented in percentages, mean scores, and correlation coefficients ( $\phi$  and Pearson's  $r$ ). These data will present evidence of the tasks taught and performed as well as the relationships between group membership and responses. Interpretation of the findings follow:

Question 1: What are the tellers' tasks taught in the high school banking courses?

The 86 teller tasks determined as needed are listed in Table 6. The list was compiled from A Catalog of Performance Objectives and Performance Guides for Paying

Table 4

Education of Respondents--Usable Returns

Highest Level	School Bank Managers	Tellers
High school	-	8
High school diploma	-	30
Technical school	-	14
Two-year college	-	25
Two-year college degree	-	3
Four-year college	-	9
Four-year college degree +	9	10
Missing data	-	1
Total	9	100

**Table 5**

**Years of Experience of Respondents--Usable Returns**

Tellers		School Bank Managers			
		Teaching Banking		Teaching	
Years	Number	Years	Number	Years	Number
1	32	1	1	20	1
2	26	5	1	23	1
3	10	10	3	24	3
4	5	11	1	26	1
5	4	19	1	27	1
6	6	20	1	28	1
7	3	22	1	32	1
8	4				
9	1				
10	1				
12	1				
13	3				
14	1				
17	1				
19	1				
Missing	1				

Table 6

Percent Ratings and Mean Scores--School Bank Managers

Task	Percent	Mean	Rating Level
1. Arrange coins in coin tray for day's transactions	75.0	2.00	I
2. Prepare strapped currency drawer for day's transactions	77.8	1.88	I
3. Prepare rolled coin drawer for day's transactions	77.8	1.88	I
4. Prepare working currency drawer for day's transactions	88.9	1.63	I
5. Prepare working currency and coins for day's transactions	100.0	1.56	I
6. Stock forms, supplies and equipment for daily transactions	100.0	1.44	VI
7. Open teller terminal	77.8	1.75	I
8. Close teller terminal	77.8	1.75	I
9. Balance cash drawer and close teller's window	100.0	1.33	VI
10. Follow procedures for conduct during a robbery	66.7	1.38	VI
11. Follow procedures for conduct after a robbery	66.7	1.63	I
12. Greet customers	100.0	1.44	VI

VI = Very Important  
I = Important

SI = Somewhat Important  
NI = Not Important

(table 6 continues)

	Task	Percent	Mean	Rating Level
13.	Dismiss customers (thank you)	100.0	1.50	I
14.	Insure the safekeeping of money at teller's window	88.9	1.22	VI
15.	Determine if check is negotiable	88.9	1.38	VI
16.	Examine counter checks for acceptability	66.7	1.57	I
17.	Examine deposit slips for acceptability	88.9	1.38	VI
18.	Remove excess currency from teller's window	77.8	1.43	VI
19.	Examine currency for counterfeit bills	77.8	1.44	VI
20.	Inspect for mutilated or badly worn coins	55.6	2.50	I
21.	Inspect for mutilated or badly worn currency	55.6	2.50	I
22.	Inspect customer's identification	66.7	1.75	I
23.	Process counterfeit currency	0.0	3.40	SI
24.	Process excess currency	44.4	2.29	I
25.	Process mutilated and badly worn currency	33.3	2.43	I

VI = Very Important  
I = Important

SI = Somewhat Important  
NI = Not Important

(table 6 continues)



Task	Percent	Mean	Rating Level
26. Roll coins	100.0	1.89	I
27. Sort and stack coins	100.0	1.88	I
28. Sort and stack currency	88.9	1.63	I
29. Strap currency	88.9	1.88	I
30. Count loose coins	88.9	1.88	I
31. Count rolled coins	88.9	1.88	I
32. Count boxed coins	44.4	2.43	I
33. Count loose currency	88.9	1.88	I
34. Count stacks of currency	88.9	2.00	I
35. Count and strap currency	77.8	2.00	I
36. Verify customer's checking/savings account	66.7	2.00	I
37. Accept winter holiday payments	0.0	3.50	NI
38. Accept installment loan payments	0.0	3.50	NI
39. Admit customers to safe deposit boxes	0.0	3.33	SI
40. Advance cash on bank credit cards	0.0	3.33	SI
41. Answer customer inquiries	100.0	1.38	VI
42. Cash one check	77.8	2.44	I

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(table 6 continues)

Task	Percent	Mean	Rating Level
43. Cash multiple checks	33.3	2.86	SI
44. Cash Series E or EE bonds	0.0	3.80	NI
45. Enter amount of interest in savings passbooks	22.2	3.29	SI
46. Fill change requests	66.7	2.13	I
47. Fill payroll requests	0.0	3.33	SI
48. Pay savings withdrawals	33.3	2.86	SI
49. Issue cashier's checks	22.2	3.29	SI
50. Issue certificates of deposit	22.2	3.17	SI
51. Process bond coupons	0.0	3.50	NI
52. Process bond coupons for deposit	0.0	3.50	NI
53. Process deposits	100.0	1.33	VI
54. Complete a collection receipt	37.5	2.50	SI
55. Issue money orders	11.1	3.33	SI
56. Process cash deposits	100.0	1.33	VI
57. Process checks for deposit	100.0	1.22	VI
58. Process cash with checks for deposit	100.0	1.33	VI
59. Process check with cash return for deposit	44.4	1.83	I

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SI = Somewhat Important  
NI = Not Important

(table 6 continues)

Task	Percent	Mean	Rating Level
60. Issue Series EE bonds	0.0	3.50	NI
61. Issue traveler's checks	11.1	3.50	NI
62. Cash traveler's checks	44.4	2.86	SI
63. Take telephone calls	88.9	1.88	I
64. Operate checkwriter	88.9	2.00	I
65. Order personalized checks	77.8	2.00	I
66. Prepare deposit slips for the customer	77.8	1.75	I
67. Accept and process tax deposits	0.0	3.67	NI
68. Complete safe deposit rental statement	0.0	3.60	NI
69. Accept safe deposit rental fees	0.0	3.60	NI
70. Place hold on customer accounts	22.2	3.33	SI
71. Make title changes on customer accounts	33.3	3.00	SI
72. Open new customer	100.0	1.56	I
73. Place stop payment on checks	88.9	2.11	I
74. Operate electronic typewriter	77.8	1.86	I
75. Prepare cash-in and cash-out tickets	50.0	2.20	I

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NI = Not Important

(table 6 continues)

	Task	Percent	Mean	Rating Level
76.	Buy cash from other tellers	33.3	2.71	SI
77.	Prepare debit and credit totals on a teller's daily balance sheet	88.9	1.38	VI
78.	Prepare debit and credit sub-totals on a teller's daily balance sheet	88.9	1.38	VI
79.	Prepare cash over and cash shortage on a teller's daily balance sheet	100.0	1.44	VI
80.	Buy and sell currency from vault teller	11.1	2.67	SI
81.	Sell cash to other tellers	33.3	2.14	I
82.	Process food stamps	0.0	3.50	NI
83.	Accept and process utilities payments	0.0	3.50	NI
84.	Report large currency transactions	11.1	3.14	SI
85.	Prepare travelers checks and money order reports	0.0	3.40	SI
86.	Sell bus tokens	77.8	1.63	I

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and Receiving Teller (Research/Curriculum Unit for Vocational and Technical Education, 1989) and tellers from the National Bank of Blacksburg, Blacksburg, VA.

This question was answered with data collected from the nine school bank managers who responded YES and NO to the teller tasks listed on the survey. Table 6 shows the list of tasks and the percentage scores of school bank managers who had taught them in the laboratory banking courses.

School bank managers indicated they taught 70 of the 86 tasks. There was unanimous agreement among school bank managers that they did not teach the following tasks:

23. Process counterfeit currency
37. Accept winter holiday payments
38. Accept installment loan payments
39. Admit customers to safe deposit boxes
40. Advance cash on bank credit cards
44. Cash Series E or EE bonds
47. Fill payroll requests
51. Process bond coupons
52. Process bond coupons for deposit
60. Issue Series EE bonds
67. Accept and process tax deposits
68. Complete safe deposit rental statements

- 69. Accept safe deposit rental fees
- 82. Process food stamps
- 83. Accept and process utilities payments
- 85. Prepare traveler's checks and money order reports

All school bank managers said they taught the tasks

listed below:

- 5. Prepare working currency and coins for day's transactions
- 6. Stock forms, supplies and equipment for daily transactions
- 9. Balance cash drawer and close teller's window
- 12. Greet customers
- 13. Dismiss customers (thank you)
- 26. Roll coins
- 27. Sort and stack coins
- 41. Answer customer inquiries
- 53. Process deposits
- 56. Process cash deposits
- 57. Process checks for deposit
- 58. Process cash and checks for deposit
- 72. Open new customer accounts
- 79. Prepare cash over and cash shortage on a teller's daily balance sheet

There were 29 tasks taught by 88.9% or more of the school bank managers. There were 18 tasks which fewer than

50% of the school bank managers said they taught. These tasks were:

24. Process excess currency
25. Process mutilated and badly worn currency
32. Count boxed coins
43. Cash multiple checks
45. Enter amount of interest in savings passbooks
48. Pay savings withdrawals
49. Issue cashier's checks
50. Issue certificates of deposits
54. Complete a collection receipt
55. Issue money orders
59. Process check with cash return for deposit
61. Issue traveler's checks
62. Cash traveler's checks
70. Place hold on customer accounts
71. Make title changes on customer accounts
80. Buy and sell currency from vault teller
81. Sell cash to other tellers
84. Report large currency transactions

Question 2: What is the importance of the task, as perceived by school bank managers, to the training of students for employment in teller positions?

To answer this question, mean scores were computed for the tasks on a 4-point scale. The mean score scale below was used to interpret the level of importance indicated by the responses of school bank managers.

<u>Response Items</u>	<u>Mean Score Range</u>
Very Important	1.00 - 1.49
Important	1.50 - 2.49
Somewhat Important	2.50 - 3.49
Not Important	3.50 - 4.00

The results of mean score ratings of the importance of the tasks by school bank managers were recorded in Table 6.

In analyzing these findings, 17 tasks, with mean scores between 1.00 and 1.49, were perceived by school bank managers as very important. There were 39 tasks with mean scores between 1.50 and 2.49 that were perceived to be important. Eighteen tasks were considered somewhat important that had mean scores between 2.50 and 3.49. Twelve tasks perceived as not important had mean scores between 3.50 and 4.00, namely:

37. Accept winter holiday payments
38. Accept installment loan payments
44. Cash series E or EE bonds
51. Process bond coupons
52. Process bond coupons for deposit
60. Issue Series EE bonds



61. Issue traveler's checks
67. Accept and process tax deposits
68. Complete safe deposit rental statement
69. Accept safe deposit rental fees
82. Process food stamps
83. Accept and process utilities payments

Tasks which the school bank managers considered very important were:

6. Stock forms, supplies and equipment for daily transactions
9. Balance cash drawer and close teller's window
10. Follow procedures for conduct during a robbery
12. Greet customers
14. Insure the safekeeping of money at teller's window
15. Determine if check is negotiable
17. Examine deposit slips for acceptability
18. Remove excess currency from teller's window
19. Examine currency for counterfeit bills
41. Answer customer inquiries
53. Process deposits
56. Process cash deposits
57. Process checks for deposit
58. Process cash and checks for deposit
77. Prepare debit and credit totals on a teller's daily balance sheet

78. Prepare debit and credit sub-totals on a teller's daily balance sheet

79. Prepare cash over and cash shortage on a teller's daily balance sheet

**Question 3: What are the tasks performed by tellers in financial institutions?**

The 86 teller tasks needed to answer this question are listed in Table 7. Usable data were collected from 100 tellers who responded YES and NO to the tasks listed on the survey. Table 7 shows the list of tasks and the percentage scores by tellers who performed them on their jobs.

Tellers indicated they performed, by varying percentages, all of the tasks included on the survey instrument. There were, however, 12 tasks that were performed by 100% of the tellers, namely:

7. Open teller terminal
8. Close teller terminal
9. Balance cash drawer and close teller's window
12. Greet customers
14. Insure the safekeeping of money at teller's window
15. Determine if check is negotiable
22. Inspect customer's identification
41. Answer customer inquiries

Table 7

Percent Ratings and Mean Scores--Tellers

Task	Percent	Mean	Rating Level
1. Arrange coins in coin tray for day's transactions	85.9	2.06	I
2. Prepare strapped currency drawer for day's transactions	89.9	1.63	I
3. Prepare rolled coin drawer for day's transactions	84.8	2.08	I
4. Prepare working currency drawer for day's transactions	95.9	1.37	VI
5. Prepare working currency and coins for day's transactions	96.0	1.49	VI
6. Stock forms, supplies and equipment for daily transactions	94.8	1.83	I
7. Open teller terminal	100.0	1.24	VI
8. Close teller terminal	100.0	1.21	VI
9. Balance cash drawer and close teller's window	100.0	1.09	VI
10. Follow procedures for conduct during a robbery	91.4	1.18	VI

VI = Very Important

I = Important

SI = Somewhat Important

NI = Not Important

(table 7 continues)

Task	Percent	Mean	Rating Level
11. Follow procedures for conduct after a robbery	91.5	1.19	VI
12. Greet customers	100.0	1.76	I
13. Dismiss customers (thank you)	94.0	1.24	VI
14. Insure the safekeeping of money at teller's window	100.0	1.08	VI
15. Determine if check is negotiable	100.0	1.08	VI
16. Examine counter checks for acceptability	96.9	1.19	VI
17. Examine deposit slips for acceptability	93.9	1.40	VI
18. Remove excess currency from teller's window	94.8	1.33	VI
19. Examine currency for counterfeit bills	95.0	1.32	VI
20. Inspect for mutilated or badly worn coins	80.6	2.13	I
21. Inspect for mutilated or badly worn currency	90.8	2.07	I
22. Inspect customer's identification	100.0	1.14	VI
23. Process counterfeit currency	41.1	1.59	I
24. Process excess currency	75.6	1.67	I

VI = Very Important  
I = Important

SI = Somewhat Important  
NI = Not Important

(table 7 continues)

Task	Percent	Mean	Rating Level
25. Process mutilated and badly worn currency	71.7	2.09	I
26. Roll coins	64.0	2.42	I
27. Sort and stack coins	59.0	2.48	I
28. Sort and stack currency	82.5	1.81	I
29. Strap currency	84.8	1.65	I
30. Count loose coins	98.0	1.60	I
31. Count rolled coins	94.0	1.68	I
32. Count boxed coins	61.9	1.92	I
33. Count loose currency	97.0	1.48	VI
34. Count stacks of currency	89.8	1.51	I
35. Count and strap currency	89.9	1.52	I
36. Verify customer's checking/savings account	99.0	1.36	VI
37. Accept winter holiday payments	27.7	2.98	SI
38. Accept installment loan payments	98.0	1.60	I
39. Admit customers to safe deposit boxes	22.7	2.72	SI
40. Advance cash on bank credit cards	85.0	1.83	I
41. Answer customer inquiries	100.0	1.38	VI

VI = Very Important  
I = Important

SI = Somewhat Important  
NI = Not Important

(table 7 continues)

Task	Percent	Mean	Rating Level
42. Cash one check	95.0	1.53	I
43. Cash multiple checks	91.8	1.53	I
44. Cash Series E or EE bonds	78.0	1.83	I
45. Enter amount of interest in savings passbooks	28.1	2.84	SI
46. Fill change requests	83.7	1.96	I
47. Fill payroll requests	57.7	1.91	I
48. Pay savings withdrawals	93.5	1.51	I
49. Issue cashier's checks	87.8	1.49	VI
50. Issue certificates of deposit	51.0	1.80	I
51. Process bond coupons	68.0	1.97	I
52. Process bond coupons for deposit	74.5	1.76	I
53. Process deposits	100.0	1.35	VI
54. Complete a collection receipt	51.1	2.13	I
55. Issue money orders	90.0	1.61	I
56. Process cash deposits	100.0	1.31	VI
57. Process checks for deposit	100.0	1.34	VI
58. Process cash with checks for deposit	100.0	1.33	VI

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I = Important

SI = Somewhat Important  
NI = Not Important

(table 7 continues)

Task	Percent	Mean	Rating Level
59. Process check with cash return for deposit	94.9	1.35	VI
60. Issue Series EE bonds	29.9	2.47	I
61. Issue traveler's checks	92.0	1.53	I
62. Cash traveler's checks	97.0	1.54	I
63. Take telephone calls	86.0	1.86	I
64. Operate checkwriter	57.1	2.17	I
65. Order personalized checks	44.3	2.19	I
66. Prepare deposit slips for the customer	69.7	2.24	I
67. Accept and process tax deposits	69.4	1.84	I
68. Complete safe deposit rental statement	15.6	3.15	SI
69. Accept safe deposit rental fees	27.8	2.79	SI
70. Place hold on customer accounts	81.8	1.67	I
71. Make title changes on customer accounts	39.1	2.39	I
72. Open new customer accounts	38.7	2.07	I
73. Place stop payment	45.7	2.05	I
74. Operate electronic typewriter	81.9	2.29	I

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I = Important

SI = Somewhat Important  
NI = Not Important

(table 7 continues)

	<b>Task</b>	<b>Percent</b>	<b>Mean</b>	<b>Rating Level</b>
75.	Prepare cash-in and cash-out tickets	75.3	1.82	I
76.	Buy cash from other tellers	59.6	2.22	I
77.	Prepare debit and credit totals on a teller's daily balance sheet	80.2	1.58	I
78.	Prepare debit and credit sub-totals on a teller's daily balance sheet	74.7	1.68	I
79.	Prepare cash over and cash shortage on a teller's daily balance sheet	92.4	1.46	VI
80.	Buy and sell currency from vault teller	97.8	1.27	VI
81.	Sell cash to other tellers	60.2	2.06	I
82.	Process food stamps	13.0	3.24	SI
83.	Accept and process utilities payments	40.9	2.63	SI
84.	Report large currency transactions	97.9	1.23	VI
85.	Prepare travelers checks and money order reports	70.7	1.57	I
86.	Sell bus tokens	9.8	3.52	NI

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NI = Important



- 53. Process deposits
- 56. Process cash deposits
- 57. Process checks for deposit
- 58. Process cash and checks for deposit

From the list of 86 tasks, between 80% and 100% of the tellers said they used 53 of them on their jobs. There were 19 tasks performed by 50% to 79% and 14 tasks for which less than 50% of the tellers said they used. Tasks performed by less than 50% of the tellers were:

- 23. Process counterfeit currency
- 37. Accept winter holiday payments
- 39. Admit customers to safe deposit boxes
- 45. Enter amount of interest in savings passbooks
- 60. Issue Series EE bonds
- 65. Order personalized checks
- 68. Complete safe deposit rental statement
- 69. Accept safe deposit rental fees
- 71. Make title changes on customer accounts
- 72. Open new customer accounts
- 73. Place stop payment on checks
- 82. Process food stamps
- 83. Accept and process utilities payments
- 86. Sell bus tokens

**Question 4: What is the importance of the tasks, as perceived by tellers, to the performance of the duties of the job?**

Mean scores were computed for the tasks on a 4-point scale. Table 7 shows the list of teller tasks and the level to which tellers perceived their importance to the performance of the duties of their jobs. Mean scores were used to interpret the scores (see question 2). In analyzing the findings, 27 tasks were rated very important, 51 were rated important, 7 were rated somewhat important, and one was rated not important.

Tellers rated the following tasks very important:

4. Prepare working currency drawer for day's transactions
5. Prepare working currency and coins for day's transactions
7. Open teller terminal
8. Close teller terminal
9. Balance cash drawer and close teller's window
10. Follow procedures for conduct during a robbery
11. Follow procedures for conduct after a robbery
13. Dismiss customers (thank you)
14. Insure the safekeeping of money at teller's window
15. Determine if check is negotiable
16. Examine counter checks for acceptability

17. Examine deposit slips for acceptability
18. Remove excess currency from teller's window
19. Examine currency for counterfeit bills
22. Inspect customer's identification
33. Count loose currency
36. Verify customer's checking/savings account
41. Answer customer inquiries
49. Issue cashier's checks
53. Process deposits
56. Process cash deposits
57. Process checks for deposit
58. Process cash with checks for deposit
59. Process check with cash return for deposit
79. Prepare cash over and cash shortage on a teller's  
daily balance sheet
80. Buy and sell currency from vault teller
84. Report large currency transactions

Tasks rated somewhat important were:

37. Accept winter holiday payments
39. Admit customers to safe deposit boxes
45. Enter amount of interest in savings passbooks
68. Complete safe deposit rental statement
69. Accept safe deposit rental fees
82. Process food stamps
83. Accept and process utilities payments

Task rated not important:

86. Sell bus tokens

Question 5: To what extent do the teller tasks taught in the high school banking courses match the tasks performed by tellers in financial institutions?

Phi correlation coefficient statistical technique was used to compare percentage scores of Group I with Group II. A phi correlation coefficient was calculated for each task and over all the tasks. The interpretation was based on the rule of thumb for determining the size of the correlation coefficient:

.90 to 1.00	- Very high relationship
.70 to .90	- High relationship
.50 to .70	- Moderate relationship
.30 to .50	- Low relationship
.00 to .30	- Little, if any, relationship

To determine if the tasks taught matched tasks performed, the tasks matched if they had a phi correlation less than .30. Table 8 summarizes the phi correlations of responses by school bank managers and tellers for each task. Phi correlation over all the tasks was .54, which showed a moderate relationship between group membership and responses. Responses of school bank managers and those

Table 8

Tasks Taught by School Bank Managers (Group I) vs.  
Tasks Performed by Tellers (Group II)

Task	Phi Correla- tion	Percent	
		Group I n = 9	Group II n = 100
1. Arrange coins in coin tray for day's transactions	.08	75.0	85.9
2. Prepare strapped currency drawer for day's transactions	.11	77.8	89.9
3. Prepare rolled coin drawer for day's transactions	.05	77.8	84.8
4. Prepare working currency drawer for day's transactions	.09	88.9	95.9
5. Prepare working currency and coins for day's transactions	.06	100.0	96.0
6. Stock forms, supplies and equipment for daily transactions	.07	100.0	94.8
7. Open teller terminal	.46	77.8	100.0
8. Close teller terminal	.46	77.8	100.0
9. Balance cash drawer and close teller's window	.00	100.0	100.0
10. Follow procedures for conduct during a robbery	.23	66.7	91.4

(table 8 continues)

Task	Phi Correla- tion	Percent	
		Group I n = 9	Group II n = 100
11. Follow procedures for conduct after a robbery	.23	66.7	91.5
12. Greet customers	.00	100.0	100.0
13. Dismiss customers (thank you)	.07	100.0	94.0
14. Insure the safekeeping of money at teller's window	.32	88.9	100.0
15. Determine if check is negotiable	.32	88.9	100.0
16. Examine counter checks for acceptability	.37	66.7	96.9
17. Examine deposit slips for acceptability	.06	88.9	93.9
18. Remove excess currency from teller's window	.19	77.8	94.8
19. Examine currency for counterfeit bills	.19	77.8	95.0
20. Inspect for mutilated or badly worn coins	.17	55.6	80.6
21. Inspect for mutilated or badly worn currency	.30	55.6	90.8
22. Inspect customer's identification	.56	66.7	100.0
23. Process counterfeit currency	.24	0.0	41.1

(table 8 continues)

Task	Phi Correla- tion	Percent	
		Group I n = 9	Group II n = 100
24. Process excess currency	.20	44.4	75.6
25. Process mutilated and badly worn currency	.24	33.3	71.7
26. Roll coins	.21	100.0	64.0
27. Sort and stack coins	.23	100.0	59.0
28. Sort and stack currency	.05	88.9	82.5
29. Strap currency	.03	88.9	84.8
30. Count loose coins	.15	88.9	98.0
31. Count rolled coins	.06	88.9	94.0
32. Count boxed coins	.10	44.4	61.9
33. Count loose currency	.12	88.9	97.0
34. Count stacks of currency	.01	88.9	89.8
35. Count and strap currency	.11	77.8	89.9
36. Verify customer's checking/savings account	.47	66.7	99.0
37. Accept winter holiday payments	.18	0.0	27.7
38. Accept installment loan payments	.90	0.0	98.0
39. Admit customers to safe deposit boxes	.16	0.0	22.7
40. Advance cash on bank credit cards	.56	0.0	85.0

(table 8 continues)

Task	Phi Correla- tion	Percent	
		Group I n = 9	Group II n = 100
41. Answer customer inquiries	.00	100.0	100.0
42. Cash one check	.22	77.8	95.9
43. Cash multiple checks	.48	33.3	91.8
44. Cash Series E or EE bonds	.48	0.0	78.0
45. Enter amount of interest in savings passbooks	.04	22.2	28.1
46. Fill change requests	.14	66.7	83.7
47. Fill payroll requests	.32	0.0	57.7
48. Pay savings withdrawals	.53	33.3	93.5
49. Issue cashier's checks	.48	22.2	87.8
50. Issue certificates of deposit	.16	22.2	51.0
51. Process bond coupons	.39	0.0	68.0
52. Process bond coupons for deposit	.44	0.0	74.5
53. Process deposits	.00	100.0	100.0
54. Complete a col- lection receipt	.07	37.5	51.1
55. Issue money orders	.58	11.1	90.0
56. Process cash deposits	.00	100.0	100.0
57. Process checks for deposit	.00	100.0	100.0
58. Process cash with checks for deposit	.00	100.0	100.0

(table 8 continues)



Task	Phi Correla- tion	Percent	
		Group I n = 9	Group II n = 100
59. Process check with cash return for deposit	.48	44.4	94.9
60. Issue Series EE bonds	.19	0.0	29.9
61. Issue traveler's checks	.63	11.1	92.0
62. Cash traveler's checks	.55	44.4	97.0
63. Take telephone calls	.02	88.9	86.0
64. Operate checkwriter	.19	88.9	57.1
65. Order personalized checks	.19	77.8	44.3
66. Prepare deposit slips for the customer	.05	77.8	69.7
67. Accept and process tax deposits	.40	0.0	69.4
68. Complete safe deposit rental statement	.13	0.0	15.6
69. Accept safe deposit rental fees	.18	0.0	27.8
70. Place hold on customer accounts	.39	22.2	81.8
71. Make title changes on customer accounts	.03	33.3	39.1
72. Open new customer accounts	.35	100.0	38.7
73. Place stop payment	.24	35.5	45.7
74. Operate electronic typewriter	.03	77.8	81.9

(table 8 continues)

Task	Phi Correla- tion	Percent	
		Group I n = 9	Group II n = 100
75. Prepare cash-in and cash-out tickets	.15	50.0	75.3
76. Buy cash from other tellers	.15	33.3	59.6
77. Prepare debit and credit totals on a teller's daily balance sheet	.06	88.9	80.2
78. Prepare debit and credit sub-totals on a teller's daily balance sheet	.09	88.9	74.7
79. Prepare cash over and cash shortage on a teller's daily balance sheet	.09	100.0	92.4
80. Buy and sell currency from vault teller	.83	11.1	97.8
81. Sell cash to other tellers	.15	33.3	60.2
82. Process food stamps	.11	0.0	13.0
83. Accept and process utilities payments	.23	0.0	40.9
84. Report large currency transactions	.83	11.1	97.9
85. Prepare travelers checks and money order reports	.42	0.0	70.7
86. Sell bus tokens	.53	77.8	9.8

tellers were not in agreement; therefore, they did not match. Members of Group I and Group II responded similarly when the value of phi was less than .30, meaning there was little, if any, relationship between group membership and the responses. If phi was greater than .30, the groups responded differently. The groups responded similarly to 58 tasks (Table 8) where phi was less than .30. There were 28 tasks with phi greater than .30. When the responses differed, the value of phi resulted from the group with the greater percent level. Teller percent levels were higher for the following tasks:

7. Open teller terminal
8. Close teller terminal
14. Insure the safekeeping of money at teller's window
15. Determine if check is negotiable
16. Examine counter checks for acceptability
21. Inspect for mutilated or badly worn currency
22. Inspect customer's identification
36. Verify customer's checking/savings account
38. Accept installment loan payments
40. Advance cash on bank credit cards
43. Cash multiple checks
44. Cash Series E or EE bonds
47. Fill payroll requests
48. Pay savings withdrawals

49. Issue cashier's checks
51. Process bond coupons
52. Process bond coupons for deposit
55. Issue money orders
59. Process check with cash return for deposit
61. Issue traveler's checks
62. Cash traveler's checks
67. Accept and process tax deposits
70. Place hold on customer accounts
80. Buy and sell currency from vault teller
84. Report large currency transactions
85. Prepare traveler's checks and money order reports

There were three tasks for which percent levels of the school bank managers' responses were higher, namely:

72. Open new customer accounts
73. Place stop payment
86. Sell bus tokens

There were seven tasks for which phi was zero. All of the tellers and all of the school bank managers who responded said they performed and taught the tasks, respectively. These tasks were:

9. Balance cash drawer and close teller's window
12. Greet customers
41. Answer customer inquiries
53. Process deposits

- 56. Process cash deposits
- 57. Process checks for deposit
- 58. Process cash with checks for deposit

Although the responses by school bank managers and tellers for the following tasks were in agreement, there were 18 tasks with phi less than .30 that had low response rates by both groups. These were:

- 23. Process counterfeit currency
- 32. Count boxed coins
- 37. Accept winter holiday payments
- 39. Admit customers to safe deposit boxes
- 45. Enter amount of interest in savings passbook
- 47. Fill payroll requests
- 50. Issue certificate of deposit
- 54. Complete a collection receipt
- 60. Issue Series EE bonds
- 67. Accept and process tax deposits
- 68. Complete safe deposit rental statement
- 69. Accept safe deposit rental fees
- 71. Make title changes on customer accounts
- 73. Place stop payment
- 76. Buy cash from other tellers
- 81. Sell cash to other tellers
- 82. Process food stamps
- 83. Accept and process utilities payments

Question 6: To what extent do tellers and school bank managers perceive the importance of the tasks similarly?

Pearson's correlation coefficient statistical technique was used to compare mean scores of school bank managers with mean scores of tellers. Pearson's  $r$  was calculated for each task and over all the tasks for the perception of the importance of the tasks by tellers and school bank managers. The interpretation for these scores was based on the rule of thumb for interpreting the size of the correlation (see scale on page 89). The results of Pearson's  $r$  calculations are shown in Table 9. The overall correlation was found to be .27, interpreted to mean there was little, if any, relationship between group membership and responses. The groups responded similarly.

From the analysis of Pearson's  $r$ , there were 60 tasks with correlations less than .30. School bank managers and tellers rated the tasks important. There was little, if any, relationship between group membership and responses. Based on the scale for interpreting the

Table 9

Importance of Tasks as Perceived by School Bank Managers vs. Tellers

Task	Pearson's <u>r</u>	Mean	
		Group I n = 9	Group II n = 100
1. Arrange coins in coin tray for day's transactions	.19	2.00	2.06
2. Prepare strapped currency drawer for day's transactions	.17	1.88	1.63
3. Prepare rolled coin drawer for day's transactions	.11	1.88	2.08
4. Prepare working currency drawer for day's transactions	.18	1.63	1.37
5. Prepare working currency and coins for day's transactions	.11	1.56	1.49
6. Stock forms, supplies and equipment for daily transactions	.17	1.44	1.83
7. Open teller terminal	.34	1.75	1.24
8. Close teller terminal	.34	1.75	1.21
9. Balance cash drawer and close teller's window	.21	1.33	1.09
10. Follow procedures for conduct during a robbery	.22	1.38	1.18
11. Follow procedures for conduct after a robbery	.24	1.63	1.19

(table 9 continues)

Task	Pearson's $\underline{r}$	Mean	
		Group I n = 9	Group II n = 100
12. Greet customers	.21	1.44	1.76
13. Dismiss customers (thank you)	.20	1.50	1.24
14. Insure the safekeeping of money at teller's window	.13	1.22	1.08
15. Determine if check is negotiable	.25	1.38	1.08
16. Examine counter checks for acceptability	.21	1.57	1.19
17. Examine deposit slips for acceptability	.08	1.38	1.40
18. Remove excess currency from teller's window	.14	1.43	1.33
19. Examine currency for counterfeit bills	.13	1.44	1.32
20. Inspect for mutilated or badly worn coins	.23	2.50	2.13
21. Inspect for mutilated or badly worn currency	.20	2.50	2.07
22. Inspect customer's identification	.38	1.75	1.14
23. Process counterfeit currency	.49	3.40	1.59
24. Process excess currency	.23	2.29	1.67
25. Process mutilated and badly worn currency	.12	2.43	2.09

(table 9 continues)



Task	Pearson's $\underline{r}$	Mean	
		Group I n = 9	Group II n = 100
26. Roll coins	.21	1.89	2.42
27. Sort and stack coins	.21	1.88	2.48
28. Sort and stack currency	.16	1.63	1.81
29. Strap currency	.14	1.88	1.65
30. Count loose coins	.24	1.88	1.60
31. Count rolled coins	.24	1.88	1.68
32. Count boxed coins	.25	2.43	1.92
33. Count loose currency	.29	1.88	1.42
34. Count stacks of currency	.26	2.00	1.51
35. Count and strap currency	.24	2.00	1.52
36. Verify customer's checking/savings account	.35	2.00	1.36
37. Accept winter holiday payments	.27	3.50	2.98
38. Accept installment loan payments	.56	3.50	1.60
39. Admit customers to safe deposit boxes	.23	3.33	2.72
40. Advance cash on bank credit cards	.44	3.33	1.83
41. Answer customer inquiries	.06	1.38	1.38
42. Cash one check	.45	2.44	1.53

(table 9 continues)

Task	Pearson's $\underline{r}$	Mean	
		Group I n = 9	Group II n = 100
43. Cash multiple checks	.55	2.86	1.53
44. Cash Series E or EE bonds	.46	3.80	1.83
45. Enter amount of interest in savings passbooks	.15	3.29	2.84
46. Fill change requests	.23	2.13	1.96
47. Fill payroll requests	.36	3.33	1.91
48. Pay savings withdrawals	.49	2.86	1.51
49. Issue cashier's checks	.53	3.29	1.49
50. Issue certificates of deposit	.40	3.17	1.80
51. Process bond coupons	.37	3.50	1.97
52. Process bond coupons for deposit	.45	3.50	1.76
53. Process deposits	.03	1.33	1.35
54. Complete a col- lection receipt	.23	2.50	2.13
55. Issue money orders	.49	3.33	1.61
56. Process cash deposits	.04	1.33	1.31
57. Process checks for deposit	.07	1.22	1.34
58. Process cash with checks for deposit	.23	1.33	1.33

(table 9 continues)

Task	Pearson's $\underline{r}$	Mean	
		Group I n = 9	Group II n = 100
59. Process check with cash return for deposit	.26	1.83	1.35
60. Issue Series EE bonds	.25	3.50	2.47
61. Issue traveler's checks	.59	3.50	1.53
62. Cash traveler's checks	.49	2.86	1.54
63. Take telephone calls	.15	1.88	1.86
64. Operate checkwriter	.21	2.00	2.17
65. Order personalized checks	.20	2.00	2.19
66. Prepare deposit slips for the customer	.24	1.75	2.24
67. Accept and process tax deposits	.44	3.67	1.84
68. Complete safe deposit rental statement	.28	3.60	3.15
69. Accept safe deposit rental fees	.27	3.60	2.79
70. Place hold on customer accounts	.40	3.33	1.67
71. Make title changes on customer accounts	.17	3.00	2.39
72. Open new customer accounts	.31	1.56	2.07

(table 9 continues)

Task	Pearson's $\underline{r}$	Mean	
		Group I n = 9	Group II n = 100
73. Place stop payment on checks	.15	2.11	2.05
74. Operate electronic typewriter	.19	1.86	2.29
75. Prepare cash-in and cash-out tickets	.14	2.20	1.82
76. Buy cash from other tellers	.16	2.71	2.22
77. Prepare debit and credit totals on a teller's daily balance sheet	.10	1.38	1.58
78. Prepare debit and credit sub-totals on a teller's daily balance sheet	.12	1.38	1.68
79. Prepare cash over and cash shortage on a teller's daily balance sheet	.06	1.44	1.46
80. Buy and sell currency from vault teller	.58	2.67	1.27
81. Sell cash to other tellers	.09	2.14	2.06
82. Process food stamps	.19	3.50	3.24
83. Accept and process utilities payments	.21	3.50	2.63

(table 9 continues)

Task	Pearson's <u>r</u>	Mean	
		Group I n = 9	Group II n = 100
84. Report large cur- rency transactions	.55	3.14	1.23
85. Prepare travelers checks and money order reports	.52	3.40	1.57
86. Sell bus tokens	.52	1.63	3.52

size of  $\underline{r}$ , there were 26 tasks that had  $\underline{r}$  greater than .30, meaning there was a difference between the responses of tellers and school bank managers. These tasks were:

7. Open teller terminal
8. Close teller terminal
22. Inspect customer's identification
23. Process counterfeit currency
36. Verify customer's checking/savings account
38. Accept installment loan payments
40. Advance cash on bank credit cards
42. Cash one check
43. Cash multiple checks
44. Cash Series E or EE bonds
47. Fill payroll requests
48. Pay savings withdrawals
49. Issue cashier's checks
50. Issue certificates of deposit
51. Process bond coupons
52. Process bond coupons for deposit
55. Issue money orders
61. Issue traveler's checks
62. Cash traveler's checks
67. Accept and process tax deposits
70. Place hold on customer accounts
72. Open new customer accounts

- 72. Open new customer accounts
- 80. Buy and sell currency from vault teller
- 84. Report large currency transactions
- 85. Prepare traveler's checks and money order reports
- 86. Sell bus tokens

The following 17 tasks were rated very important and important by tellers and somewhat important and not important by school bank managers:

- 38. Accept installment loan payments
- 40. Admit customers to safe deposit boxes
- 43. Cash multiple checks
- 44. Cash Series E or EE bonds
- 48. Pay savings withdrawals
- 49. Issue cashier's checks
- 50. Issue certificates of deposit
- 51. Process bond coupons
- 52. Process bond coupons for deposit
- 55. Issue money orders
- 61. Issue traveler's checks
- 62. Cash traveler's checks
- 67. Accept and process tax deposits
- 70. Place hold on customer accounts
- 80. Buy and sell currency from vault teller
- 84. Report large currency transactions
- 85. Prepare traveler's checks and money order reports

Tellers rated the following task as not important while school bank managers rated it important:

86. Sell bus tokens

Space was provided on the survey instrument for respondents to add task items not already identified. The tellers added 10 tasks and the school bank managers added 7 (Table 10). Tasks added by tellers were:

1. Transfer money to another account or suffix loan
2. Open vacation club
3. Certify checks for credit union members
4. Close Christmas Club/savings account after receptionist verifies
5. Supervise teller line to service customer first
6. Work office when necessary to service customer first
7. Work with staff to ensure customer first
8. Sell flash passes
9. Cash foreign checks
10. Accept applications for EE Series bonds

Summary

This chapter discussed the findings of the research which centered around the data collection procedures, response rates, characteristics of respondents, and the analysis of the data in answer to each research question.



Table 10

Tasks Added by Respondents

Task	Source	
	Tellers	School Bank Managers
1. Transfer money to another account or suffix loan	X	
2. Open vacation club	X	
3. Certify checks for Agriculture Federal Credit Union members	X	
4. Close Christmas Club/Savings account after receptionist verifies	X	
5. Supervise teller line to service customer first	X	
6. Work office when necessary to service customer first	X	
7. Work with staff to ensure customer first	X	
8. Sell flash passes	X	
9. Cash foreign checks	X	
10. Accept applications for EE Series bonds	X	
11. Prepare students for jobs at commercial banks		X
12. Verify accuracy of work		X

(table 10 continues)

Task	Source	
	Tellers	School Bank Managers
13. Identify currency by portrait		X
14. Reconcile bank statement		X
15. Collect for lost textbooks		X
16. Collect from students for damage to school property		X
17. Sell yearbooks, gym uniforms, school spirit items		X

School bank managers taught 70 of the tasks in the banking courses and tellers used all of them in their jobs. The responses by tellers and school bank managers with regard to tasks performed and taught, respectively, matched for 58 tasks. For 60 tasks, the two groups perceived the importance of the tasks similarly.

## CHAPTER 5

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The main focus of this study centered around the extent to which teller tasks taught in the high school banking courses match tasks performed by tellers in the workplace. An investigation was made to solicit the following data from school bank managers and on-the-job tellers: (a) background characteristics, (b) tasks taught in the banking courses and used on the job, and (c) perception of importance of the tasks by the groups. Summary of the findings, conclusions, and recommendations for further study are discussed in this chapter.

#### Summary

A summary of the demographic characteristics of participants and the findings for each research question follow.

#### Data Collection

Data from two groups of participants were gathered to answer the research questions. Group I consisted of nine school bank managers from a selected school system in the Washington, DC, area. Group II consisted of a sample of 100 tellers from financial institutions in Washington, DC.

A survey instrument containing 86 teller tasks was developed to collect the data. Eighty tasks were taken from A Catalog of Performance Objectives and Performance Guides for Paying and Receiving Bank Teller (Research/Curriculum Unit for Vocational and Technical Education, 1989). The other six tasks were added by tellers who validated the instrument.

Seventy-five branch financial institutions (banks, credit unions, and thrifts) in Washington, DC, were contacted. Thirty-five of 75, or 41%, responded. The researcher obtained permission from the appropriate authorities for tellers and school bank managers to respond to the survey instrument.

A total of 154 survey instruments were distributed to tellers and school bank managers. Of this number, 143 were distributed to tellers and 11 to school bank managers. Tellers returned 113 (79%) and 10 (91%) were received from school bank managers. Usable returns were received from 100 tellers (88%) and 9 (90%) school bank managers.

#### Demographic Data

One hundred tellers participated in the study--24 males, 75 females, and gender unknown for one. Of the 11 school bank managers, 10 responded--2 males and 8 females. One high school bank was not a training laboratory for students,

thus responses from 9 were usable. Sixty-nine tellers graduated from high school and had attended a technical or 2-year college. Nineteen had attended or completed 4 years of college. All of the school bank managers had 4-year college degrees. A difference in the years of experience of tellers and school bank managers existed. Most of the tellers had 3 or less years of experience while the school bank managers, on the average, had been teaching the banking courses for more than 10 years. All of the bank managers had more than 20 years of teaching experience.

#### Summary of the Findings

A summary of the findings for each research question follows:

1. What are the teller tasks taught in the high school banking courses?

To answer this question, percents were computed of the YES and NO responses by school bank managers. As a group, 56% of the 86 tasks listed on the survey instrument were being taught in the banking courses. However, it was important to focus on the percent of tasks taught by individual school bank managers. From this analysis, there were four school bank managers who taught more than 60% of the tasks. Three taught less than 50% of the tasks, with one of the three teaching only 38%.

2. What is the importance of the tasks, as perceived by school bank managers, to the training of students for employment in teller positions?

Response choices were indicated on a 4-point Likert scale. These choices were very important, important, somewhat important, and not important, representing a scale of 1 to 4. Mean scores were computed and used to analyze the data. From this analysis, school bank managers rated 17 tasks very important; 39, important; 18, somewhat important; and 12, not important. The mean over 86 tasks was 2.29, for a rating of important.

3. What are the tasks performed by tellers in financial institutions?

To answer this question, percents were computed of the YES and NO responses by tellers. Twelve of the 86 tasks on the instrument were performed by 100% of the tellers. All of the tasks were performed by at least one teller. Eighteen tellers performed between 90-100% of the tasks; 55, 70-90%; and 27, less than 70%. Overall, tellers performed 77% of the tasks.

4. What is the importance of the tasks, as perceived by tellers, to the performance of the duties of the job?

A 4-point Likert scale was used to indicate response choices. These choices were very important, important,

somewhat important, and not important. Mean scores were computed and used to analyze the data. From this analysis, tellers rated 27 tasks very important; 51, important; 7, somewhat important; and 1, not important. Mean score over all 86 tasks was 1.80, for a rating of important.

5. To what extent do the teller tasks taught in the high school banking courses match the tasks performed by tellers in financial institutions?

Phi correlation for each task was computed and used to analyze the data. Phi over all the tasks was .54, meaning responses by tellers and by school bank managers did not match. There were instances where the task was performed but not taught. Individually, 58 of the 86 responses matched. Twenty-six of the 28 responses did not match. For these 26, 8 tasks were not taught by school bank managers, 13 were taught by a low percentage of school bank managers, and 5 were performed by all of the tellers. Thus the analysis outcomes substantiated the interpretation that phi will be greater than .30 if the percent of responses of one group is high and that of the other group is low or nonexistent.

6. To what extent do tellers and school bank managers perceive the importance of the tasks similarly?



Pearson's r was computed to determine the relationship between responses of tellers and those of school bank managers. The analysis revealed that 60 of the 86 responses matched. Of the 26 responses that did not match, the mean scores of tellers differed from those of school bank managers in that tellers rated these tasks very important and important while school bank managers rated them somewhat important and not important. Pearson's r over all the tasks was .27, indicating that the responses of the tellers and those of school bank managers were similar.

### Conclusions

From the analysis of the findings, the following conclusions were drawn:

1. Question one asked the identification of the tasks actually taught in the banking courses. As a group, school bank managers taught 56% of the 86 tasks listed on the survey instrument. Thus, in all of the training facilities, student exposure to the tasks performed in teller positions was limited. However, 4 schools provided training in more than 60% of the tasks relevant to the teller position. The researcher concluded that the banking curriculum contained a number of the tasks performed by tellers in financial institutions. However, a number of tasks were not taught or were taught by two or three school bank managers.

Consequently, students were limited in their exposure to tasks of the teller position.

2. School bank managers were asked in question two their perception of the importance of the tasks to the training of students for employment as tellers. There were tasks where the ratings of school bank managers differed from those of tellers. Despite the differences, school bank managers' rating over all the tasks was important, mean of 2.29; while the ratings of the tellers were also important, mean of 1.80. Thus, tasks considered by school bank managers to be of little importance to the training of students should be excluded from the curriculum only if tellers also rated them as being of little importance.

3. In response to question three, more than 70% of the tellers performed 71 of the 86 tasks included on the survey instrument. Therefore, the tasks identified as appropriate for the instrument were those used by tellers in the performance of their duties. Only six tasks were added to the list when the survey instrument was validated.

4. Question four asked tellers to indicate their perception of the importance of the tasks. Based on the analysis of the data, it was concluded that tellers

perceive the tasks to be important to the performance of their duties. Their overall mean for the tasks was 1.80.

5. Question five asked the extent to which tasks taught matched tasks performed. For 58 of the 86 tasks, a match existed. Twenty-six of the 28 tasks not matched resulted from 8 not being taught by school bank managers, 13 taught by a low percentage, and 5 performed by 100% of the tellers. Phi correlation greater than .30 was found when the percent of responses of one group was high and those of the other group was low or nonexistent. More emphasis should be given to tasks with low percentage ratings by school bank managers if the tasks were performed by a high percentage of tellers. The duties of tellers should influence any possible curriculum revision.

6. Question six asked if school bank managers and tellers perceived the tasks similarly. Sixty of the 86 tasks matched. Of the 26 tasks that did not match, school bank managers' responses were different because tellers rated them very important and important while school bank managers rated them somewhat important and not important. For these 26 tasks, the ratings of tellers should influence any decision to include them in the banking courses.

### General Discussion and Recommendations

The high school banking courses contained many of the tasks performed by tellers on the job. However, tasks not emphasized were those unrelated to school activities or to the services needed by the customers of the school banks. Since these courses are to serve as training facilities in banking, the curriculum should reflect the nature of the work environment. Wells (1987, p. 16) said, "Today, more than ever before, business educators recognize the need to do the best job that is possible in preparing students for a workplace which is dynamic and ever changing."

Differences in the percentage of tasks taught by individual school bank managers existed. To assure that the content of the courses is consistent across schools, a curriculum guide should be developed and used by all school bank managers. This guide could be used to plan activities and strategies necessary to maintain an efficient bank training program, facilitating quality training of all banking students throughout the school system.

Students in some of the high schools were taught a limited number of the tasks performed by tellers. In these instances, students were not provided job-related preparation. Two school bank managers taught less than 50% of the tasks, and one of the two taught only 38%. An assessment should be made of the banking courses in each of

the high schools for the purpose of revising them to ensure quality training for all students. School bank managers should strive to include as many of the on-the-job teller tasks as possible in the banking courses.

Another recommendation would be to change the grade level for courses. Presently, most of the students are in grade 12. If a majority of the students were in the 11th grade, they could take advantage of cooperative office training in the 12th grade. The students thus would be able to expand their training through a real work situation and gain exposure to tasks not taught in the school setting.

#### Recommendations for Further Study

1. Many students who complete the banking program continue their education by attending technical, independent, 2-year, or 4-year institutions. Some enter the workforce upon graduation from high school. Their career choices may or may not relate to the training received through the banking courses. A follow-up study should be conducted to determine the impact the banking courses had on career choices of students who completed the banking program in this public school system.

2. Bank training may be found in modules within many different business courses. A study should be conducted to compare the content of the bank modules within business

courses with the course content of the laboratory bank training program in this school system.

3. The findings of this study showed that the school bank managers did not teach a number of the teller tasks. A study should be conducted to determine reasons school bank managers did not teach tasks that a high percent of tellers performed on the job.

4. Students have graduated or left school who completed one or both banking courses. A follow-up study should be conducted to determine the completers perceptions of the training offered in the banking courses.

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APPENDIX A

CORRESPONDENCE WITH SCHOOL OFFICIALS

# VIRGINIA TECH

Division of Vocational and  
Technical Education

College of Education  
Blacksburg, Virginia 24061-0254

February 19, 1991

Dear Dr. Brown:

I was employed as a business teacher in the \_\_\_\_\_ Public Schools from 1964 to 1990. I retired from the system on July 1, 1990. Since then, I have been in matriculation at Virginia Polytechnic Institute and State University, Blacksburg, Virginia, pursuing a Doctor of Education degree in vocational-technical education.

During my employment with the school system, I worked as a business teacher at Spingarn (6 months), Cardozo (3 years), and Ballou (23 years) high schools. In addition, I taught business education for 15 years in the adult education program and several summers in the Mayor's Summer Youth Program.

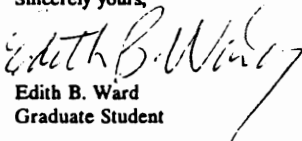
For dissertation research, I want to study the extent to which tasks taught in the \_\_\_\_\_ high school banking courses match tasks of tellers in financial institutions in Washington, D. C. I am planning also to solicit opinions and attitudes about the merits of the courses as perceived by tellers who completed them while in high school. I am requesting permission to conduct this study by surveying each high school bank managers to determine the tasks taught in the banking courses. Further, I am requesting permission to secure from the student records names, addresses, and telephone numbers of selected graduates who completed the banking courses while they were in high school. These persons will be asked about their perceptions of the usefulness of the bank training in their initial employment as tellers.

The results of the study will be shared with the \_\_\_\_\_ Public Schools to aid in the periodic evaluation and assessment of educational programs. It will also enhance the Business Education Department in its review of course content and program offerings. All data in the study will be kept confidential and will be used exclusively for this study.

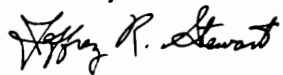
My tentative plan is to gather the data for this study during the last two weeks in May \_\_\_\_\_ If you need additional information to help you reach a decision, I will be happy to supply it.

Thank you for a favorable response to my requests.

Sincerely yours,

  
Edith B. Ward  
Graduate Student

Endorsed by:

  
Jeffrey R. Stewart  
Professor of Business Education

Virginia Polytechnic Institute and State University

Ms. Edith B. Ward  
Graduate Student  
School of Education  
Virginia Polytechnic Institute  
and State University  
Blacksburg, VA 24061-0254

Dear Ms. Ward:

Reference is made to your 19 February 1991 letter to Dr. William H. Brown, Interim Superintendent, Public Schools which has been forwarded to our office pertaining to your doctoral dissertation study. Before your request can be considered, staff in the Research and Evaluation Branch will need to review your dissertation proposal. A copy of the process for considering research requests is provided for your information.

The request to collect information from student records of graduates will require legal review and approval from the Public School's Legal Counsel. We will orchestrate this process upon receipt of your dissertation proposal.

Please be aware of the following stipulations related to data collection in

1. participation in the research study is voluntary, not required, and student participation must be preceded by parental consent.
2. for SY 1990-91, all data are to be collected by April 30, 1991.
3. a copy of the dissertation is to be submitted to the Research and Evaluation Branch as an archival record of the study and findings.
4. you state, in writing, your agreement that the name of the schools from which data were collected and the name of the school system will not be used in any oral or written presentations pertaining to the study.



Please let us know if you have any procedural or process related questions.



Zollie Stevenson, Jr., Ph.D.  
Director  
Research and Evaluation Branch

Enclosure

cc: Dr. Gilbert L. Hoffman

PROCEDURES FOR CONSIDERING DATA COLLECTION REQUESTS  
IN THE PUBLIC SCHOOLS

1. All requests to collect data or conduct interviews for courses, research studies, evaluation projects, theses and dissertations should be forwarded to the Director of the Research and Evaluation Branch for a review of the technical aspects of the data collection plan.

Requests to collect data should include cover letter, a research design/proposal, copies of consent forms and a statement pertaining to how data will be used and communicated to other audiences.

The results of the technical review will be forwarded to the person making the request and the appropriate operating assistant superintendent(s).

2. Once the technical merits of a data collection activity have been determined, the appropriate operating assistant superintendent(s) will then review the request, including the burden of data collection on schools, and render a activity. A letter will be forwarded to the person making the data collection request by the operating assistant superintendent(s) with a copy to the Director of the Research and Evaluation Branch.
3. Approved dates for data collection from local schools are between October 1 and April 30 of each school year.
4. A copy of the completed project must be provided to the Research and Evaluation Branch.

Dear Dr. Stevenson:

In keeping with the process for research data collection furnished by your office on March 19, 1991, I am enclosing my dissertation proposal for consideration.

All data collected will be kept confidential and will be used exclusively for this study. The names of the schools and the school system will not be used in any oral and written presentations pertaining to the study. Upon completion of the research, a copy of the dissertation will be submitted to your office.

My tentative plan is to collect the data during October 1991. In addition, I am required to take the dissertation prospectus examination sometime in the very near future. I will be unable to schedule this examination until after I receive permission to gather data from school personnel. If additional information is needed, I will be happy to send it to you.

Thank you for your consideration.

Sincerely yours,

Edith B. Ward  
Graduate Student

Enclosure

September 16, 1991

Ms. Edith B. Ward  
Graduate Student  
School of Education  
Virginia Polytechnic Institute  
and State University  
Blacksburg, VA 24061-0254

Dear Ms. Ward:

Reference is made to your 26 July 1991 letter and revised dissertation proposal on the subject:

An Analysis of the High School Banking Curriculum in a Large Urban Public School System in the Metropolitan Washington, D.C. Area.

Additional written comments are provided as feedback and information.

Staff in the Research and Evaluation Branch have reviewed the revised dissertation proposal. We are pleased to provide approval for the study pending approval by R&E of the sites where the survey will be administered. Participation by staff is voluntary and must involve informed consent.

You may contact me at (202) 724-8751 when you are prepared to discuss data collection sites.

Sincerely,



Zollie Stevenson, Jr., Ph.D.  
Director  
Research and Evaluation Branch

Attachment

APPENDIX B

CORRESPONDENCE WITH FINANCIAL INSTITUTIONS

October 23, 1991

UNIVERSITY RESEARCH PROJECT

I am a graduate student at Virginia Polytechnic Institute and State University, pursuing a Doctor of Education degree in vocational and technical education. I was a business education teacher in the public schools for more than 20 years. During that time, I trained students, in a laboratory bank setting, in the handling of money and in financial recordkeeping.

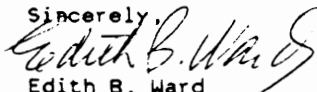
For dissertation research, I plan to study the extent to which the tasks students perform in the laboratory banking courses match tasks of tellers in financial institutions in Metropolitan Washington, D. C., area. The training offered in the high school banking courses may or may not match skills or tasks performed in financial institutions. Consequently, I am interested in conducting an assessment to determine the relationship in an effort to update the banking curriculum according to the skills required in the workplace.

I am requesting permission to administer a survey questionnaire, which enumerates identified tasks of tellers, to all tellers in your branch. Your granting permission for the tellers to participate in the survey will be of invaluable assistance to me in completing the research study. The results of the study could lead to changes and modifications in the curriculum for improvement in the preparation of students for entry into the workforce.


You can be assured that all information collected will be kept confidential and will be used exclusively for this study. The identity of the responding employees and the name of the financial institution will not be used in any written or oral presentation or report.

Please use the attached form for your reply and return it to me by November 15, 1991, in the enclosed stamped, and addressed envelope. I can be reached at Virginia Tech (703) 231-8440 or at home (703) 552-4972 if you need additional information.

Sincerely,

  
Edith B. Ward  
Graduate Student

Endorsed by:

  
Jeffrey R. Stewart  
Professor of Business Education

PLEASE COMPLETE AND RETURN THIS FORM IN THE ENCLOSED ENVELOPE.

NAME OF BANK \_\_\_\_\_

BANK BRANCH \_\_\_\_\_

\_\_\_\_\_ WILL PARTICIPATE

NUMBER OF TELLERS \_\_\_\_\_

CONTACT PERSON \_\_\_\_\_

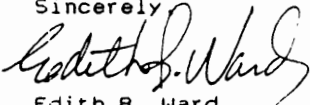
Subject: University Research Project

Thank you for your cooperation in coordinating this research project for me. I certainly appreciate your helpfulness and participation. Please express my appreciation to the tellers in your organization who will be the respondents to the survey.

The enclosed survey forms should be completed by the tellers and returned to me as soon as possible, but not later than December 2. A stamped, addressed envelope is enclosed for your convenience.

I can be reached at Virginia Tech (703) 231-8440 or at home (703) 552-4972 if you need additional information.

Sincerely



Edith B. Ward  
Graduate Student

Enclosures



APPENDIX C

CORRESPONDENCE WITH SCHOOL BANK MANAGERS

UNIVERSITY RESEARCH PROJECT

I am a graduate student at Virginia Polytechnic Institute and State University, pursuing a Doctor of Education degree in vocational and technical education. I was a business teacher in the D. C. Public Schools for more than 20 years. I served as school bank manager for more than 10 years during my tenure at Senior High School.

For dissertation research, I plan to study the extent to which the tasks students perform in the school bank match tasks of tellers in financial institutions in Washington, D. C. The training offered in the high school banking courses may or may not match skills or tasks performed in financial institutions. Consequently, I am interested in making an assessment to determine the relationship in an effort to bring insight and to improve skill preparation of students for entry into the workforce.

I am soliciting your cooperation by asking you to complete the enclosed survey and return it to me as soon as possible, but not later than December 13, 1991. Approval has been obtained from the appropriate administrative official of the DCPS for me to conduct this survey (see attachment). I understand that your participation is purely voluntary. However, your compliance with my request will be of invaluable assistance to me in completing this study and my dissertation. Your name nor the name of the school to which you are assigned will not be used in any written or oral presentation or report.

A stamped, addressed envelope is enclosed for your convenience. I can be reached at Virginia Tech (703) 231-8440 or at home (703) 552-4972 if you need additional information.

Sincerely,



Edith B. Ward  
Graduate Student

February 7, 1992

Dear Bank Managers:

My sincere appreciation is extended to each of you who responded so quickly to the survey you received in December. Your input is very important to our analysis of the results of the overall study. Unfortunately, I have not received all of the survey forms that were sent out. For those who have I not returned the survey, I am enclosing a duplicate copy along with a stamped, addressed envelope.

Your input does make a difference. I sincerely thank you for your cooperation.

Sincerely,

Edith B. Ward  
Graduate Student

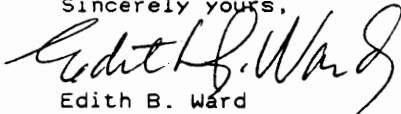
Dear Ms. .

More than a month ago you were mailed a letter along with a survey form, with the request that you complete and return it to me. If this form has already been completed and returned, please accept my sincere thanks. If not, I would appreciate your doing so before the end of this month.

Your input very important to the research which I am conducting for my dissertation. Without your participation, the data may be inaccurate and misleading.

Thank you for your cooperation.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Edith B. Ward".

Edith B. Ward  
Graduate Student  
Virginia Tech University

APPENDIX D

FIELD TEST OF SURVEY INSTRUMENT

October 10, 1991

Bank Teller:

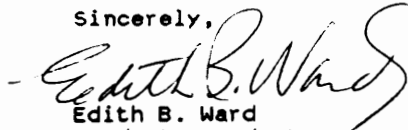
Thank you for agreeing to critique the attached tasks survey. It should require only a few minutes of your time.

Your comments will be of invaluable assistance to me in completing a research study which compares tasks taught in high school banking courses with tasks of tellers in financial institutions. This study is being directed by Dr. Jeffrey R. Stewart, Professor, Division of Vocational and Technical Education, Virginia Polytechnic Institute and State University.

Please refer to the items on the evaluation form when making your comments and suggestions.

Feel free to contact me if you have any questions. I may be reached in the office (703) 231-8440 or at home (703) 552-4972.

Sincerely,

  
Edith B. Ward  
Graduate Student

Enclosure

BANK TELLER TASKS SURVEY

EVALUATION FORM

Your evaluation of the survey, which is a pilot test, will be useful to the researcher in making revisions. Use this evaluation form and the survey in your critique. Feel free to make additional comments. Consider the following points in your evaluation:

1. How many minutes did it take you to complete this survey?

\_\_\_\_\_ 15      \_\_\_\_\_ 20      \_\_\_\_\_ More than 20

Comments \_\_\_\_\_  
\_\_\_\_\_

2. Are the directions on how to complete the survey clear?

\_\_\_\_\_ Yes      \_\_\_\_\_ No

Comments \_\_\_\_\_  
\_\_\_\_\_

3. Is the meaning of each task understood?

\_\_\_\_\_ Yes      \_\_\_\_\_ No

Comments \_\_\_\_\_  
\_\_\_\_\_

4. How do you feel about the length of the survey?

\_\_\_\_\_ Too short      \_\_\_\_\_ Appropriate      \_\_\_\_\_ Too long

Comments \_\_\_\_\_  
\_\_\_\_\_

5. Please give any other suggestions for improvement of the survey \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DEMOGRAPHIC PROFILE OF RESPONDENTS

1. Sex: ( ) female ( ) male

2. Level of formal education:

a. High school \_\_\_\_\_

b. Postsecondary \_\_\_\_\_

c. College \_\_\_\_\_

d. Bachelor's degree \_\_\_\_\_

3. How many years have you been employed as a teller? \_\_\_\_\_

How many years have you been employed as a teacher of high school banking courses? \_\_\_\_\_



BANK TELLER TASKS SURVEY  
GENERAL INSTRUCTIONS TO RESPONDENTS

DIRECTIONS

Please read and respond to each task carefully. On the first scale, circle YES if the task is performed on your job or taught in the banking courses. Circle NO if the task is not performed on your job or taught in the banking courses. On the next scale, circle item of your choice which represents your perception of the importance of the task to the organization. The choices are:

- VI - Very Important
- I - Important
- SI - Somewhat Important
- NI - Not Important

ILLUSTRATION

Task	Performed or Taught	Importance
1. Explain bank services to customers	(Yes) No	VI (I) SI NI

Please check all items to make the results of the study complete. Space is provided on the last page of the survey for the addition of items not included on the list of identified tasks.

### TELLER TASKS SURVEY

Legend: VI - Very Important  
 I - Important  
 SI - Somewhat Important  
 NI - Not Important

Task	Performed OR Taught		Importance			
	Yes	No	VI	I	SI	NI
1. Arrange coins in coin tray for day's transactions	Yes	No	VI	I	SI	NI
2. Prepare strapped currency drawer for day's transactions	Yes	No	VI	I	SI	NI
3. Prepare rolled coin drawer for day's transactions	Yes	No	VI	I	SI	NI
4. Prepare working currency drawer for day's transactions	Yes	No	VI	I	SI	NI
5. Prepare working currency and coins for day's transactions	Yes	No	VI	I	SI	NI
6. Stock forms, supplies and equipment for daily transactions	Yes	No	VI	I	SI	NI
7. Open teller terminal	Yes	No	VI	I	SI	NI
8. Close teller terminal	Yes	No	VI	I	SI	NI
9. Balance cash drawer and close teller's window	Yes	No	VI	I	SI	NI
10. Follow procedures for conduct during a robbery	Yes	No	VI	I	SI	NI
11. Follow procedures for conduct after a robbery	Yes	No	VI	I	SI	NI
12. Greet customers	Yes	No	VI	I	SI	NI
13. Dismiss customers (thank you)	Yes	No	VI	I	SI	NI
14. Insure the safekeeping of money at teller's window	Yes	No	VI	I	SI	NI

TELLER TASKS SURVEY

Legend: VI - Very Important  
 I - Important  
 SI - Somewhat Important  
 NI - Not Important

Task	Performed or Taught		Importance			
	Yes	No	VI	I	SI	NI
15. Determine if check is negotiable	Yes	No	VI	I	SI	NI
16. Examine counter checks for acceptability	Yes	No	VI	I	SI	NI
17. Examine deposit slips for acceptability	Yes	No	VI	I	SI	NI
18. Remove excess currency from teller's window	Yes	No	VI	I	SI	NI
19. Examine currency for counterfeit bills	Yes	No	VI	I	SI	NI
20. Inspect for mutilated or badly worn coins	Yes	No	VI	I	SI	NI
21. Inspect for mutilated or badly worn currency	Yes	No	VI	I	SI	NI
22. Inspect customer's identification	Yes	No	VI	I	SI	NI
23. Process counterfeit currency	Yes	No	VI	I	SI	NI
24. Process excess currency	Yes	No	VI	I	SI	NI
25. Process mutilated and badly worn currency	Yes	No	VI	I	SI	NI
26. Roll coins	Yes	No	VI	I	SI	NI
27. Sort and stack coins	Yes	No	VI	I	SI	NI

TELLER TASKS SURVEY

Legend: VI - Very Important  
 I - Important  
 SI - Somewhat Important  
 NI - Not Important

Tasks	Performed or Taught		Importance			
	Yes	No	VI	I	SI	NI
28. Sort and stack currency	Yes	No	VI	I	SI	NI
29. Strap currency						
30. Count loose coins	Yes	No	VI	I	SI	NI
31. Count rolled coins	Yes	No	VI	I	SI	NI
32. Count boxed coins	Yes	No	VI	I	SI	NI
33. Count loose currency	Yes	No	VI	I	SI	NI
34. Count stacks of currency	Yes	No	VI	I	SI	NI
35. Count and strap currency	Yes	No	VI	I	SI	NI
36. Verify customer's checking/ savings account	Yes	No	VI	I	SI	NI
37. Accept winter holiday payments	Yes	No	VI	I	SI	NI
38. Accept installment loan payments	Yes	No	VI	I	SI	NI
39. Admit customers to safe deposit boxes	Yes	No	VI	I	SI	NI
40. Advance cash on bank credit cards	Yes	No	VI	I	SI	NI

TELLER TASKS SURVEY

Legend: VI - Very Important  
 I - Important  
 SI - Somewhat Important  
 NI - Not Important

Task	Performed or Taught		Importance			
	Yes	No	VI	I	SI	NI
41. Answer customer inquiries	Yes	No	VI	I	SI	NI
42. Cash one check	Yes	No	VI	I	SI	NI
43. Cash multiple checks	Yes	No	VI	I	SI	NI
44. Cash Series E or EE bonds	Yes	No	VI	I	SI	NI
45. Enter amount of interest in savings passbooks	Yes	No	VI	I	SI	NI
46. Fill change requests	Yes	No	VI	I	SI	NI
47. Fill payroll requests	Yes	No	VI	I	SI	NI
48. Pay savings withdrawals	Yes	No	VI	I	SI	NI
49. Issue cashier's checks	Yes	No	VI	I	SI	NI
50. Issue certificates of deposit	Yes	No	VI	I	SI	NI
51. Process bond coupons	Yes	No	VI	I	SI	NI
52. Process bond coupons for deposit	Yes	No	VI	I	SI	NI
53. Process deposits	Yes	No	VI	I	SI	NI
54. Complete a collection receipt	Yes	No	VI	I	SI	NI
55. Issue money orders	Yes	No	VI	I	SI	NI

TELLER TASKS SURVEY

Legend: VI - Very Important  
 I - Important  
 SI - Somewhat Important  
 NI - Not Important

Task	Performed or Taught		Importance			
	Yes	No	VI	I	SI	NI
56. Process cash deposits	Yes	No	VI	I	SI	NI
57. Process checks for deposits						
58. Process cash and checks for deposit	Yes	No	VI	I	SI	NI
59. Process check with cash return for deposit	Yes	No	VI	I	SI	NI
60. Issue Series EE bonds	Yes	No	VI	I	SI	NI
61. Issue traveler's checks	Yes	No	VI	I	SI	NI
62. Cash traveler's checks	Yes	No	VI	I	SI	NI
63. Take telephone calls	Yes	No	VI	I	SI	NI
64. Operate checkwriter	Yes	No	VI	I	SI	NI
65. Order personalized checks	Yes	No	VI	I	SI	NI
66. Prepare deposit slips for the customer	Yes	No	VI	I	SI	NI
67. Accept and process tax deposits	Yes	No	VI	I	SI	NI
68. Complete safe deposit rental statement	Yes	No	VI	I	SI	NI
69. Accept safe deposit rental fees	Yes	No	VI	I	SI	NI
70. Place hold on customer accounts	Yes	No	VI	I	SI	NI

TELLER TASKS SURVEY

Legend: VI - Very Important  
 I - Important  
 SI - Somewhat Important  
 NI - Not Important

Task	Performed or Taught		Importance			
	Yes	No	VI	I	SI	NI
71. Make title changes on customer accounts	Yes	No	VI	I	SI	NI
72. Open new customer accounts						
73. Place stop payment on checks	Yes	No	VI	I	SI	NI
74. Operate electronic typewriter	Yes	No	VI	I	SI	NI
75. Prepare cash-in and cash-out tickets	Yes	No	VI	I	SI	NI
76. Buy cash from other tellers	Yes	No	VI	I	SI	NI
77. Prepare debit and credit totals on a teller's daily balance sheet	Yes	No	VI	I	SI	NI
78. Prepare debit and credit sub-totals on a teller's daily balance sheet	Yes	No	VI	I	SI	NI
79. Prepare cash over and cash shortage on a teller's daily balance sheet	Yes	No	VI	I	SI	NI
80. Buy and sell currency from vault teller	Yes	No	VI	I	SI	NI
81. Sell cash to other tellers	Yes	NO	VI	I	SI	NI

### TELLER TASKS SURVEY

Legend: VI - Very Important  
 I - Important  
 SI - Somewhat Important  
 NI - Not Important

	Task	Performed or Taught	Importance
82.	_____	Yes No	VI I SI NI
	_____		
	_____		
83.	_____	Yes No	VI I SI NI
	_____		
	_____		
84.	_____	Yes No	VI I SI NI
	_____		
	_____		
85.	_____	Yes No	VI I SI NI
	_____		
	_____		
86.	_____	Yes No	VI I SI NI
	_____		
	_____		

\*Source: Research/Curriculum Unit for Vocational and Technical Education. (1989). A catalog of performance objectives and performance guides for paying and receiving bank teller. Mississippi State: Mississippi State University. Department of Education, Bureau of Vocational, Technical and Adult Education, Vocational-Technical Education Consortium of States.



APPENDIX E

THE SURVEY INSTRUMENT

BANK TELLER TASKS SURVEY  
DEMOGRAPHIC PROFILE OF RESPONDENTS

1. Gender (Please check as appropriate)
- Male \_\_\_\_\_
- Female \_\_\_\_\_
2. Level of formal education:
- a. High school \_\_\_\_\_
  - b. High school diploma \_\_\_\_\_
  - c. Technical school \_\_\_\_\_
  - d. Two-year college \_\_\_\_\_
  - e. Two-year college degree \_\_\_\_\_
  - f. Four-year college \_\_\_\_\_
  - g. Four-year college degree \_\_\_\_\_
3. If you are a teller, how many years of experience have you had as a teller? (Please round) \_\_\_\_\_
4. If you are a teacher, how many years of experience have you had teaching the high school banking courses? (Please round) \_\_\_\_\_
5. How many years have you been a teacher? (Please round) \_\_\_\_\_

TELLER TASKS SURVEY  
GENERAL INSTRUCTIONS TO RESPONDENTS

DIRECTIONS

Please read and respond to each task carefully. On the first scale, circle YES if the task is taught in your banking courses. Circle NO if the task is not taught in your classes. On the next scale, circle the item of your choice which represents your perception of the importance of the task to the organization. The choices are:

- VI - Very Important
- I - Important
- SI - Somewhat Important
- NI - Not Important

ILLUSTRATION

Task	Performed or Taught	Importance
1. Explain bank services to customers	(Yes) No	VI (I) SI NI

Please check all items to make the results of the study complete. Space is provided on the last page of the survey for the addition of items not included on the list of identified tasks.

TELLER TASKS SURVEY  
GENERAL INSTRUCTIONS TO RESPONDENTS

DIRECTIONS

Please read and respond to each task carefully. On the first scale, circle YES if the task is performed on your job. Circle NO if the task is not performed. On the next scale, circle the item of your choice which represents your perception of the importance of the task to the organization. The choices are:

- VI - Very Important
- I - Important
- SI - Somewhat Important
- NI - Not Important

ILLUSTRATION

Task	Performed or Taught	Importance
1. Explain bank services to customers	(Yes) No	VI (I) SI NI

Please check all items to make the results of the study complete. Space is provided on the last page of the survey for the addition of items not included on the list of identified tasks.

## TELLER TASKS SURVEY

Legend: VI - Very Important  
 I - Important  
 SI - Somewhat Important  
 NI - Not Important

Task	Performed OR Taught		Importance			
	Yes	No	VI	I	SI	NI
1. Arrange coins in coin tray for day's transactions	Yes	No	VI	I	SI	NI
2. Prepare strapped currency drawer for day's transactions	Yes	No	VI	I	SI	NI
3. Prepare rolled coin drawer for day's transactions	Yes	No	VI	I	SI	NI
4. Prepare working currency drawer for day's transactions	Yes	No	VI	I	SI	NI
5. Prepare working currency and coins for day's transactions	Yes	No	VI	I	SI	NI
6. Stock forms, supplies and equipment for daily transactions	Yes	No	VI	I	SI	NI
7. Open teller terminal	Yes	No	VI	I	SI	NI
8. Close teller terminal	Yes	No	VI	I	SI	NI
9. Balance cash drawer and close teller's window	Yes	No	VI	I	SI	NI
10. Follow procedures for conduct during a robbery	Yes	No	VI	I	SI	NI
11. Follow procedures for conduct after a robbery	Yes	No	VI	I	SI	NI
12. Greet customers	Yes	No	VI	I	SI	NI
13. Dismiss customers (thank you)	Yes	No	VI	I	SI	NI
14. Insure the safekeeping of money at teller's window	Yes	No	VI	I	SI	NI

TELLER TASKS SURVEY

Legend: VI - Very Important  
 I - Important  
 SI - Somewhat Important  
 NI - Not Important

Task	Performed or Taught		Importance			
	Yes	No	VI	I	SI	NI
15. Determine if check is negotiable	Yes	No	VI	I	SI	NI
16. Examine counter checks for acceptability	Yes	No	VI	I	SI	NI
17. Examine deposit slips for acceptability	Yes	No	VI	I	SI	NI
18. Remove excess currency from teller's window	Yes	No	VI	I	SI	NI
19. Examine currency for counterfeit bills	Yes	No	VI	I	SI	NI
20. Inspect for mutilated or badly worn coins	Yes	No	VI	I	SI	NI
21. Inspect for mutilated or badly worn currency	Yes	No	VI	I	SI	NI
22. Inspect customer's identification	Yes	No	VI	I	SI	NI
23. Process counterfeit currency	Yes	No	VI	I	SI	NI
24. Process excess currency	Yes	No	VI	I	SI	NI
25. Process mutilated and badly worn currency	Yes	No	VI	I	SI	NI
26. Roll coins	Yes	No	VI	I	SI	NI
27. Sort and stack coins	Yes	No	VI	I	SI	NI

## TELLER TASKS SURVEY

Legend: VI - Very Important  
 I - Important  
 SI - Somewhat Important  
 NI - Not Important

Tasks	Performed or Taught		Importance			
28. Sort and stack currency	Yes	No	VI	I	SI	NI
29. Strap currency						
30. Count loose coins	Yes	No	VI	I	SI	NI
31. Count rolled coins	Yes	No	VI	I	SI	NI
32. Count boxed coins	Yes	No	VI	I	SI	NI
33. Count loose currency	Yes	No	VI	I	SI	NI
34. Count stacks of currency	Yes	No	VI	I	SI	NI
35. Count and strap currency	Yes	No	VI	I	SI	NI
36. Verify customer's checking/ savings account	Yes	No	VI	I	SI	NI
37. Accept winter holiday payments	Yes	No	VI	I	SI	NI
38. Accept installment loan payments	Yes	No	VI	I	SI	NI
39. Admit customers to safe deposit boxes	Yes	No	VI	I	SI	NI
40. Advance cash on bank credit cards	Yes	No	VI	I	SI	NI

TELLER TASKS SURVEY

Legend: VI - Very Important  
 I - Important  
 SI - Somewhat Important  
 NI - Not Important

Task	Performed or Taught		Importance			
	Yes	No	VI	I	SI	NI
41. Answer customer inquiries	Yes	No	VI	I	SI	NI
42. Cash one check	Yes	No	VI	I	SI	NI
43. Cash multiple checks	Yes	No	VI	I	SI	NI
44. Cash Series E or EE bonds	Yes	No	VI	I	SI	NI
45. Enter amount of interest in savings passbooks	Yes	No	VI	I	SI	NI
46. Fill change requests	Yes	No	VI	I	SI	NI
47. Fill payroll requests	Yes	No	VI	I	SI	NI
48. Pay savings withdrawals	Yes	No	VI	I	SI	NI
49. Issue cashier's checks	Yes	No	VI	I	SI	NI
50. Issue certificates of deposit	Yes	No	VI	I	SI	NI
51. Process bond coupons	Yes	No	VI	I	SI	NI
52. Process bond coupons for deposit	Yes	No	VI	I	SI	NI
53. Process deposits	Yes	No	VI	I	SI	NI
54. Complete a collection receipt	Yes	No	VI	I	SI	NI
55. Issue money orders	Yes	No	VI	I	SI	NI



TELLER TASKS SURVEY

Legend: VI - Very Important  
 I - Important  
 SI - Somewhat Important  
 NI - Not Important

Task	Performed or Taught		Importance			
	Yes	No	VI	I	SI	NI
56. Process cash deposits	Yes	No	VI	I	SI	NI
57. Process checks for de- posits						
58. Process cash and checks for deposit	Yes	No	VI	I	SI	NI
59. Process check with cash return for deposit	Yes	No	VI	I	SI	NI
60. Issue Series EE bonds	Yes	No	VI	I	SI	NI
61. Issue traveler's checks	Yes	No	VI	I	SI	NI
62. Cash traveler's checks	Yes	No	VI	I	SI	NI
63. Take telephone calls	Yes	No	VI	I	SI	NI
64. Operate checkwriter	Yes	No	VI	I	SI	NI
65. Order personalized checks	Yes	No	VI	I	SI	NI
66. Prepare deposit slips for the customer	Yes	No	VI	I	SI	NI
67. Accept and process tax deposits	Yes	No	VI	I	SI	NI
68. Complete safe deposit rental statement	Yes	No	VI	I	SI	NI
69. Accept safe deposit rental fees	Yes	No	VI	I	SI	NI
70. Place hold on customer accounts	Yes	No	VI	I	SI	NI

TELLER TASKS SURVEY

Legend: VI - Very Important  
 I - Important  
 SI - Somewhat Important  
 NI - Not Important

Task	Performed or Taught		Importance			
	Yes	No	VI	I	SI	NI
71. Make title changes on customer accounts	Yes	No	VI	I	SI	NI
72. Open new customer accounts						
73. Place stop payment on checks	Yes	No	VI	I	SI	NI
74. Operate electronic typewriter	Yes	No	VI	I	SI	NI
75. Prepare cash-in and cash-out tickets	Yes	No	VI	I	SI	NI
76. Buy cash from other tellers	Yes	No	VI	I	SI	NI
77. Prepare debit and credit totals on a teller's daily balance sheet	Yes	No	VI	I	SI	NI
78. Prepare debit and credit sub-totals on a teller's daily balance sheet	Yes	No	VI	I	SI	NI
79. Prepare cash over and cash shortage on a teller's daily balance sheet	Yes	No	VI	I	SI	NI
80. Buy and sell currency from vault teller	Yes	No	VI	I	SI	NI
81. Sell cash to other tellers	Yes	NO	VI	I	SI	NI

TELLER TASKS SURVEY

Legend: -VI - Very Important  
 I - Important  
 SI - Somewhat Important  
 NI - Not Important

Task	Performed or Taught		Importance			
	Yes	No	VI	I	SI	NI
82. Process food stamps	Yes	No	VI	I	SI	NI
83. Accept and process utilities payments	Yes	No	VI	I	SI	NI
84. Report large currency transactions	Yes	No	VI	I	SI	NI
85. Prepare travelers checks and money order reports	Yes	No	VI	I	SI	NI
86. Sell bus tokens	Yes	NO	VI	I	SI	NI
87. _____ _____ _____	Yes	No	VI	I	SI	NI
88. _____ _____ _____	Yes	No	VI	I	SI	NI
89. _____ _____ _____	Yes	No	VI	I	SI	NI
90. _____ _____ _____	Yes	No	NI	I	SI	NI

Research/Curriculum Unit for Vocational and Technical Education. (1989). A catalog of performance objectives and performance guides for paying and receiving bank teller. Mississippi State, MS: Mississippi State University.

## VITA

Edith B. Ward

**Home Address:** 9278 Adelphi Road, Apartment 204  
Adelphi, Maryland 20783  
Telephone: (301) 431-4808

### **Educational Background**

Graduated from Lincoln High School, 1947, Tallahassee, FL.

Bachelor of Science, 1951, Florida Agricultural and Mechanical University, Tallahassee, Florida; Major: Secretarial Science

Master of Education, 1964, American University, Washington, DC; Major: Secondary Education

Certificate of Advanced Graduate Studies, 1992, Virginia Polytechnic Institute and State University, Blacksburg, Virginia; Major: Vocational and Technical Education

Doctor of Education, 1992, Virginia Polytechnic Institute and State University, Blacksburg, Virginia; Major: Vocational and Technical Education

### **Work Experience**

Secretary, Florida Agricultural and Mechanical University, Tallahassee, Florida, 1951-1952

Clerk-typist, Secretary and Documents Control Assistant (GS3 - GS7), Federal Government serving in 5 agencies, 1952-1964

Business Education Teacher, District of Columbia Public Schools, Washington, DC, 1964-1990

Business Education Teacher, District of Columbia Public Schools, Adult Education Program, Washington, DC, 1965-1988

Business Education Teacher, Mayor's Summer Youth Enrichment Program, Washington, DC, 7 summers

**Academic Advisor, University Academic Advising Center,  
Virginia Polytechnic Institute and State University,  
Blacksburg, Virginia, 1990-present**

**Church/Civic Organizations**

**Trustee, Tabernacle Baptist Church, Washington, DC  
Usher, Tabernacle Baptist Church, Washington, DC  
Member, Interdenominational Church Ushers Association  
Member, Church Trustee Fellowship  
Treasurer, Ballou High School Parent-Teacher-Student Assoc.  
Treasurer, Ballou High School, Washington, DC, 1975-1990  
Secretary, DC Chapter, Florida Agricultural and Mechanical  
University Alumni Association  
Member, Adelphi Terrace Condominium Association**

**Professional Organizations**

**Member, Omicron Tau Theta, honorary voc. ed. fraternity  
Member, Association for Supervision and Curriculum Dev.  
Member, American Vocational Education Research Association  
Member, National Business Education Association  
Member, Eastern Business Education Association  
Member, American University Alumni Association  
Member, National Council of Negro Women  
Member, Delta Pi Epsilon, honorary bus. ed. society  
Member, Phi Delta Kappa, professional education fraternity**

A handwritten signature in black ink, reading "Edith B. Ward". The signature is written in a cursive style with a large, sweeping flourish at the end.