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ABSTRACT

The ultimate objective of the New Office and Business Education Learnings System (NOBELS) is an office occupations curriculum congruent with the concepts in the organic curriculum theory. The final report of this phase of research has developed an inventory of 375 educational specifications in behavior terms that represent basic tasks performed by 16-24 year old office workers. Based on empiric data collected by interview from 1,232 office employees and their supervisors from four areas of the United States, the educational specifications were drawn from 4,548 basic tasks and 32,447 steps of task performance. Pointed toward the classroom practitioner and learner in public secondary and community college education, the inventory of goals will affect instruction for office preparation through media developers, state and local supervisors, curriculum committees, teacher educators in business and office education, and certain innovative schools. Additional outputs of NOBELS include (1) a Taxonomy of Office Activities (ED 021 140), (2) two correlative studies on Interaction Critical Incidents and Hardware Used in Office Task Performance, (3) a Talent Inventory, and (4) the NOBELS Verbs and Synonyms. The feasibility study for NOBELS is available as ED 023 894. (JS)

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FINAL PROJECT REPORT

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DEVELOPMENT OF PERFORMANCE GOALS FOR A NEW OFFICE  
AND BUSINESS EDUCATION LEARNINGS SYSTEM  
(NOBELS)

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## SUMMARY

The primary purpose of New Office and Business Education Learnings System (NOBELS) was the development of an inventory of 375 educational specifications in behavioral terms that represent basic tasks performed by 16-24 year old office workers. Based on empiric data collected by interview from 1232 office employees and their supervisors from four areas of the United States, the educational specifications were drawn from 4548 basic tasks and 32,447 steps of task performance. Analyses of data are presented as they describe the sample cases and as they suggest clues for office education curriculum renewal.

Pointed toward the classroom practitioner and learner in public secondary and community college education, the inventory of goals will affect instruction for office preparation through media developers; state and local supervisors, curriculum committees, and teacher educators in business and office education; and certain innovative schools such as ES '70. This report of educational goals is the first of a continuing series of systematic projects planned to develop and classroom test new learnings programs in office occupations preparation.

A consortium of five institutions with contracts through the Center for Research and Leadership Development in Vocational and Technical Education comprise the working groups. The Board of Governors for Research and Development of Delta Pi Epsilon served as liaison between the consortium and the profession.

In addition to area data reports, correlative studies of a Taxonomy of Office Activities, the emergent office, interaction critical incidents and office hardware, and a Talent Inventory are also outputs of the current phase of NOBELS.

## Chapter I

### BACKGROUND INFORMATION

#### A. TOTAL PROBLEM OF CURRICULUM RENEWAL FOR OFFICE EDUCATION

New Office and Business Education Learnings System (NOBELS) is a long-range curriculum renewal project in which the current report is of the first phase. Utilizing a system model, NOBELS' overall function is to assess and modify learning programs in which purposes are preparation for office jobs. The bases of modification of office learnings programs are educational specifications or behavioral goals in which successful attainment by students are prerequisite to office employment.

As an analog model, NOBELS system is conceived as a closed, self-correcting, and thus developing system of curriculum renewal. While the first step in its development is reported as it affects the area of office work preparation, the model is equally applicable to all areas of occupational education.

##### 1. Purpose of the Current Phase of NOBELS

The purpose of the project reported herein was the development of educational specifications to be used as guides in the modification of behavior of learners necessary for office employment. The focus of each specification was behavior needed for office employment.

A principal criterion for developing specifications for office education has been that they be relevant to tasks as performed in current and emerging office jobs.

##### 2. Process and Product of the Current Phase of NOBELS

A systematic inventory of office tasks as performed in current and emerging occupations has been the base for deriving the set of educational specifications reported. The office task data were collected by personal interview from 1253 office workers and their supervisors yielding 1232 usable cases. Basic tasks performed by these workers, 4548 in number, were identified, classified, and analyzed. The further analysis of tasks yielded 32,447 classified verbs that represent steps in task performance. The steps of task performance were classified according to a 108-verb listing developed for NOBELS. The basic task data were reduced to 375 performance goals that are the major output of this report.

The foregoing data are reported in Chapter III of the current volume. The resulting educational performance goals are detailed in Chapter IV.

### 3. Next Phases of NOBELS

The next phases of NOBELS curriculum development are: (a) the selection from the inventory of educational performance goals those that are relevant to the preparation of students in secondary or community college level institutions; (b) the preparation of learning experiences for target students; (c) the application of the learnings in a classroom; (d) the systematic assessment of the learning results; and (e) the modification of the specifications or their application based on the assessment.

Thus, NOBELS is viewed as a long-range curriculum development program in which the current inventory of educational performance goals is prerequisite.

### 4. Definition of Terms

"Office and business education learnings" of NOBELS means those organized learnings that are prerequisite to obtaining and holding an office job. The selection of the word "learnings" was a deliberate one, emphasizing the primacy of the individual learner in the system.

The term "system" in NOBELS can be characterized by the requirement of a terminal goal specification expected in such a form that actual attainment can be compared with expected attainment. This comparison admits to analysis and synthesis through feedback circuitry providing a closed loop, self-correcting system.

"Terminal goal specification" as used is synonymous with the terms "performance goal" or "behavioral goal" expected at the end of an educational experience. Expressed explicitly in operational terms, the specification identifies the learner for whom the goal is intended, the behavior to be learned, the conditions or alternatives of performance, and the base for assessment (criterion of success) of actual behavior achieved (Mager, 1961).

By "office occupations" is meant those clusters of occupations defined under U. S. Office of Education (1969) classifications as 14.00 00. The clusters consist of the following major groupings: 01 00, Accounting and Computing Occupations; 02 00, Business Data Processing Systems Occupations; 03 00, Filing, Office Machines and General Office Clerical Occupations; 04 00, Information Communication Occupations; 05 00, Materials Support Occupations, Transportation, Storing, and Recording; 06 00, Personnel, Training, and Related Occupations; 07 00, Stenographic, Secretarial, and Related Occupations; 08 00, Supervisory and Administrative Management Occupations; 09 00, Typing and Related Occupations; and 10 00, Miscellaneous Office Occupations.

The term "basic task" refers to those major performances of an office worker designated by a supervisor or an employee as the central purpose of the job. Our definition of task approaches that of the term "operations" used by some job analysts. "Tasks" requested to be identified by supervisors were "the most difficult, the most time consuming, and tasks requiring the most responsibility on the part of the worker."

## B. THE NEED FOR NOBELS

### 1. The Market for Office Job Preparation

Changing numbers and kinds of clerical and kindred workers needed annually as replacements help determine the market for office job preparation. The annual replacement rate for this kind of worker is 3.5 to 4.5 percent compared with a rate of 3 percent for all workers (U. S. Bureau of Labor Statistics, 1969b, p. 50).

From approximately 10-million clerical and kindred workers in 1960 reported in the labor force, 15-million clerical and kindred workers are projected for 1975 (Table 1). Furthermore, the ratio of clerical and kindred workers to the total labor force is projected to increase by 2 percent in the same period, from 14.7 percent to 16.7 percent. By major industry groupings, most of the 15-year projected increase of 5-million clerical and kindred workers are in government (an increase of 1.9 million); wholesale and retail trade (1.2 million); services (1 million); finance, insurance, and real estate (.4 million); and manufacturing (.3 million).

One-third of an estimated total of 29-million females employed in 1968 were in clerical and kindred occupations. This estimate compares with a ratio of one to fourteen of all employed males (49-million in number) that were so employed (U. S. Bureau of Labor Statistics, 1969a, p. 33).

Furthermore, the increased absorption of nonwhite females in clerical and kindred occupations should be noted. For example, in the year of 1959, 7.5 percent of employed nonwhite females were in clerical and kindred occupations; in 1968, an estimated increase of 244 percent representing 18.3 percent of all employed nonwhite females were in these occupations (U. S. Bureau of Labor Statistics, 1969a, p. 55).

As thus characterized, the market for office job preparation is an increasing market influenced by higher than average replacement and estimated increase in numbers and proportion of the total labor force. The market for office job preparation is influenced by a high proportion of females so employed. The changing market for office job preparation is influenced by projected increases of office workers in government; wholesale and retail trade; services; finance, insurance, and real estate; and manufacturing kinds of businesses. The changing market for office job preparation is a promising one for nonwhite females as the increased absorption of this group in clerical jobs is noted.

### 2. Current Educational Programs in Office Education

In most comprehensive secondary schools, approximately one-third of all students enroll in one or more office and business education courses. In one recent study of entry occupations, 44 percent of all graduating seniors who sought employment entered office jobs (Cook and Lanham, 1966).

Curriculum for office education in the typical high school has been characterized as an aggregate of courses rather than integrated programs of learning (Lanham and Trytten, 1966, pp. 23, 26, 27). Traditional courses in



TABLE 1  
 Percent of Clerical and Kindred Workers of Total of All Workers in Selected Industry Groupings  
 (1960 and Projected 1975) from Bureau of Labor Statistics\*

	All In- dustries		Agri- culture		Manu- facturing		Utilities		Whsale Retail		Fin. Ins. Real Est.		Services		Govern- ment	
	1960	1975	1960	1975	1960	1975	1960	1975	1960	1975	1960	1975	1960	1975	1960	1975
Clerical & Kindred Workers	14.7	16.7	.6	1.0	12.4	12.0	24.2	24.0	14.0	17.1	45.2	44.0	11.8	14.6	42.7	38.5
Stenographers, Typists, Secretaries	3.6	4.4	.2	.3	3.1	3.4	2.9	3.2	2.0	2.3	13.0	13.1	4.9	6.0	8.4	8.6
Office Machine Operators	.6	.8	.01	.01	.8	.5	.8	1.1	.8	1.0	2.8	3.9	.2	.3	1.1	1.2
Other Clerical & Kindred	10.5	11.5	.4	.7	7.9	8.7	20.6	19.6	11.2	13.9	29.7	27.0	6.7	8.3	33.3	28.7
Accounting Clerks	.6	.5	.02	.04	.4	.5	1.0	.8	.8	.8	1.5	1.0	.3	.3	1.2	1.1
Bookkeeping, Hand	1.0	1.0	.1	.01	.5	.4	.4	.3	2.0	2.1	4.9	4.4	.7	.7	.0	.0
Bank Tellers	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	4.5	6.6	.0	.0	.0	.0
Cashiers	.7	1.1	.01	.0	.05	.04	.6	.8	2.6	4.2	1.1	1.3	.4	.4	.2	.2
Mail Carriers	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.4	5.6
Postal Clerks	.4	.4	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.5	6.6
Ship. & Rec. Clerks	.5	.4	.01	.0	1.1	1.1	.2	.2	.7	.6	.04	.05	1.0	1.0	.1	.1
Telephone Operators	.5	.5	.0	.0	.2	.1	5.1	4.7	.2	.2	.5	.5	.3	.4	.3	.3
Clerical & Kindred, NEC	6.4	6.9	.2	.6	5.8	6.5	13.3	12.8	4.9	6.0	17.1	13.2	5.0	6.6	17.6	14.8
All Workers (in millions)	66.7	88.7	5.8	3.9	16.8	19.7	4.0	4.6	11.4	16.1	2.7	3.7	7.4	12.9	8.4	14.2
Est. Number Clerical & Kind- red to Total Worker (Ratio x all workers in millions)	9.8	14.8	.03	.04	2.1	2.4	1.0	1.1	1.6	2.8	1.2	1.6	.9	1.9	3.6	5.5
Increase (+) Decrease (-) in Millions (1975-1960)	+5.0			+0.1		+ .3		+ .1		+1.2		+ .4		+1.0		+1.9

\*U. S. Bureau of Labor Statistics, 1969b, pp. 19, 39.



this area have been developed, influenced primarily by textbooks in which the authors assume needs of students in terms of office skills and personal traits. The virtue of this traditional approach was that it allowed increments to curriculum; the weakness was that the increments seldom represented fundamental change based on job expected performance.

Even office and business education programs developed under Federal vocational education legislation and its enabling state acts since 1963 point toward an aggregate of courses rather than learning programs. For example, from examination of 36 state plans for business and office education, Haines and Coleman (1966, pp. 121-122) concluded that "the most significant fact found here is that almost every office course can be deemed as vocational in almost half or more of the states with the exception of general business courses." This trend may now be reversed as a result of the 1968 Amendments to the Vocational Education Act of 1963.

### C. RELATED RESEARCH

The direction for NOBELS has been influenced more from research and development in other disciplines than from research within office and business education.

The NOBELSystem approach to curriculum renewal was a direct outgrowth of work reported from the armed forces (Christal, 1969) other branches of the Federal government, and curriculum course development reported from armed forces academies (U. S. Naval Academy, 1967).

More directly influential toward a systems base was the work of interdisciplinary consultants retained during the feasibility study. Each consultant possessed unique experiences in systems research and development.

Wilson, director of the Industrial Systems and Research Institute, warned against difficulties of obtaining mathematical precision in an educational system envisioned for Moonshot. Hill (and Kerber, 1967), as a mathematician and educational researcher, considered even a primitive model of curriculum system to be a step then needed to develop educational specifications. Canfield (1967) as dean of instruction had implemented a system-based curriculum at the then new Oakland County (Michigan) Community College. Rummel as director of the Center for Programmed Instruction for Business followed an "operations research" model in analyzing and modifying in-service training programs in business organizations. Morrison (American Institutes for Research, USOE No. 5-0009), then located at the American Institutes for Research, was principal investigator in an occupational curriculum project at Quincy, Massachusetts. Morrison's work preceded but also led into the present Educational Systems for the '70's (ES '70 News, 1968), a network of pilot schools committed to developing a system approach to education following the constructs of behaviorists.

Among behaviorists, the writings of Gagne (1965), Mager (1961), Popham (1967), and Morgan and Bushnell (1967) each influenced direction of NOBELS toward a system approach to curriculum analysis and modification. Among educational system's writings, the work of Fine (1969) and Silvern (1965, 1967) have been influential.

The Bloom (1956), Krathwohl (1956), and Simpson (1966) taxonomies in the areas of the cognitive, affective, and psychomotor domains were studied in the pilot phases of NOBELS. Originally proposed for analysis of tasks according to cognitive, affective, or psychomotor components, we do not see even the most cognitive of office tasks which is not influenced by affective and frequently psychomotor dimensions. Perhaps Simpson (1966) best indicated the problems of analysis of educational goals when she said that there should be yet another domain, an "action pattern domain," which would go beyond but encompass the other three domains. The verb listing developed for NOBELS approaches Simpson's idea.

Tuckman's (1969, 1970b) SCOPE project is one of utilizing behaviorally-stated objectives such as those derived from NOBELS in the development of broad programs of organic learning experiences oriented toward the occupational task.

In the field of business and office education, Perkins (1968) and others had assembled empiric data from the State of Washington, concerning task performances expected of office workers. Preceding Perkins' report, McCloskey (1967) reported on Knowledge and Skills Required for Clusters or Families of Occupations. Also in the series, Perkins and Boyd (1966) developed a model for collecting their sample of office job tasks. The sample design for the State of Washington emphasizing the small business is not representative of the national office worker concentrations in metropolitan areas and in large businesses.

A teacher-made list of 599 tasks was identified by Perkins and these were classified according to the following categories: (1) typing, (2) operating office machines and equipment, (3) taking dictation and transcribing, (4) mailing, (5) filing, (6) telephoning and communicating, (7) performing clerical operations, (8) securing data, (9) using mathematics, (10) performing financial and record keeping operations, (11) performing editorial operations, (12) meeting and working with people, and (13) miscellaneous. A weakness of the Perkins' list is a lack of definition of task. Such processes as planning one's work and such noneducational but important actions as dusting and sweeping the floor were all designated as "tasks." The categories used also appeared to be biased toward present office education curriculum. For example, the classification of operating office machines was influenced, we suspect, by the current course title called "office machines." Early recognition in NOBELS of the weakness of definition and classification did help avoid at least these biases toward current office education curriculum.

Crawford (1969) has developed lists of competencies necessary for employment in distribution jobs. Unlike the Perkins' and NOBELS' projects, lists of competencies were derived from expert opinion rather than more direct data sources such as the worker or his supervisor on the job. Both studies were unique in attempting to identify competencies expected of entry workers as a base for curriculum modification.

That the Crawford and Perkins projects sought relevance for job preparation from current jobs, like the current phase of NOBELS, is commendable. A more substantive problem is transferring the base data, such as obtained



by Crawford or Perkins, to learning programs that do, in fact, shape behaviors of learners to match the required competencies.

Among the first U. S. Office of Education Research Branch funded projects in distributive and office education was Opportunities and Requirements for Initial Employment of School Leavers (OREOS). As an interview survey project, representative samples were drawn from Detroit businesses and the public high school graduating class of 1963. From data thus collected, Cook and Lanham (1966) concluded that small companies are not a major source of entry jobs for office and retail workers; the majority of businesses surveyed did not have jobs for inexperienced youth between the ages of 16 and 21. Further, they reported that business jobs demand few if any skills other than typewriting for initial employment.

As a direct outgrowth of the latter finding, senior intensified programs (SIP) were developed and implemented (Lanham and Cook, 1970). As curriculums for students with little if any previous business preparation, separate one-year programs were tested in data processing, distribution, stenography, and clerk-typist job clusters. In SIP, students were placed in a part-time, paid work experience as soon as they could be employed, usually not later than the beginning of the second semester. A follow-up study of SIP students (Brown, 1969) showed that these students as a group did secure jobs equal in number to other business-trained students in school and were rated as highly by employers as traditionally trained business education students, or at least significant differences could not be identified. The in-school time necessary to gain employment in SIP was less than half that of traditional programs.

The block-time approach, which utilized a two- or three-hour period of time to teach the office subjects, also involved a flexible scheduling of learning activities. The objective of the block-time approach was to integrate the learning experiences of the student in a simulated office setting. Four states and Michigan participated in one study (McBeth, 1967)--Arizona, Florida, New Jersey, and Washington. A complete evaluation of the results of this project have yet to be analyzed in terms of curricular implications for the learner.

#### D. NOBELS ORGANIZATIONAL STRUCTURE

The formation of Delta Pi Epsilon's Board of Governors for Research and Development is described elsewhere (Lanham, 1968). This Board served as a link between business and distributive education profession and the Center for Research and Leadership Development in Vocational and Technical Education at the Ohio State University, the prime contractor of NOBELS. As provided in the proposal, the officers of the Board of Governors served on the Center's Executive Committee for NOBELS. Funding from U. S. Office of Education, Research Branch, was through contract with the Center.

The project director operated under contract with the Center through Wayne State University. Area data collection contracts were located at the University of California at Los Angeles, the University of Georgia at Athens, the State University of New York at Albany, and the University of Minnesota at Minneapolis.



#### E. OBJECTIVES OF THE CURRENT STUDY

To derive the major product of the current phase of NOBELS the following objectives were identified:

1. Determining a framework for analyzing current and emerging office tasks
2. Isolating trends and concepts from emerging office occupations and practices and converting these to performance goals
3. Developing a sampling design for collecting data from office work stations
4. Developing a procedure and a training program for data collection
5. Converting field data to performance goals: primary (terminal), interim, and prevocational
6. Analyzing the data collected
7. Reporting a master list of performance goals

#### F. PRODUCTS DERIVED FROM MEETING OBJECTIVES

In response to Objective 1, Huffman and Brady (1968) developed and previously reported the Taxonomy of Office Activities. NOBELS Action Verbs and Synonyms, a list of verbs derived from steps of office tasks as currently collected, and included in this report, is a direct outgrowth of the Taxonomy.

The report of trends and concepts from emerging offices (Objective 2) is not currently available. Under the direction of Huffman, his tentative findings are reported here for the first time (Appendix A).

The present report is primarily the product of meeting Objectives 3-7. Final area data reports are available from the following NOBELS participating institutions: State University of New York at Albany, H. Tonne, area director (1969); University of California at Los Angeles, L. W. Erickson, area director (1969); University of Georgia, C. Calhoun, area director (1970); and University of Minnesota, R. Price, area director (1970).

Two correlative NOBELS studies are included in the University of Georgia report: "Interaction Critical Incidents" and "Hardware Used in Office Task Performance" (Calhoun, 1970).

The Talent Inventory, an integral part of the feasibility study and of the current phase of NOBELS, has also been reported by Cook et al., (1970).

All supporting reports as listed are being made available through Education Research Information Centers' Educational Document Reproduction Service, 4936 Fairmont Avenue, Bethesda, Maryland 20014.

## Chapter II

### THE PROCESS OF DEVELOPING PERFORMANCE GOALS

#### A. A SYSTEMS OVERVIEW OF NOBEL PROCESS

The model for a system approach to curriculum renewal was described at length in the final report of the feasibility study (Lanham, 1968). At least two purposes cause us to review at this point the analog NOBELSystem model (Chart 1).

The first purpose is to re-orient the reader to the current phase of NOBELS' curriculum development in terms of the overall system approach. The current phase of the project, it will be remembered, relates to the second rectangle of the flow-process model labeled "performance goals." All methods and procedures described here should be evaluated in terms of their yield of operational objectives.

The second purpose is to illustrate further the application of a process system model such as NOBELS. While the schematic was developed primarily as a model to implement total curriculum renewal, its controls have proved equally applicable to the current phase of the process of developing a set of performance goals.

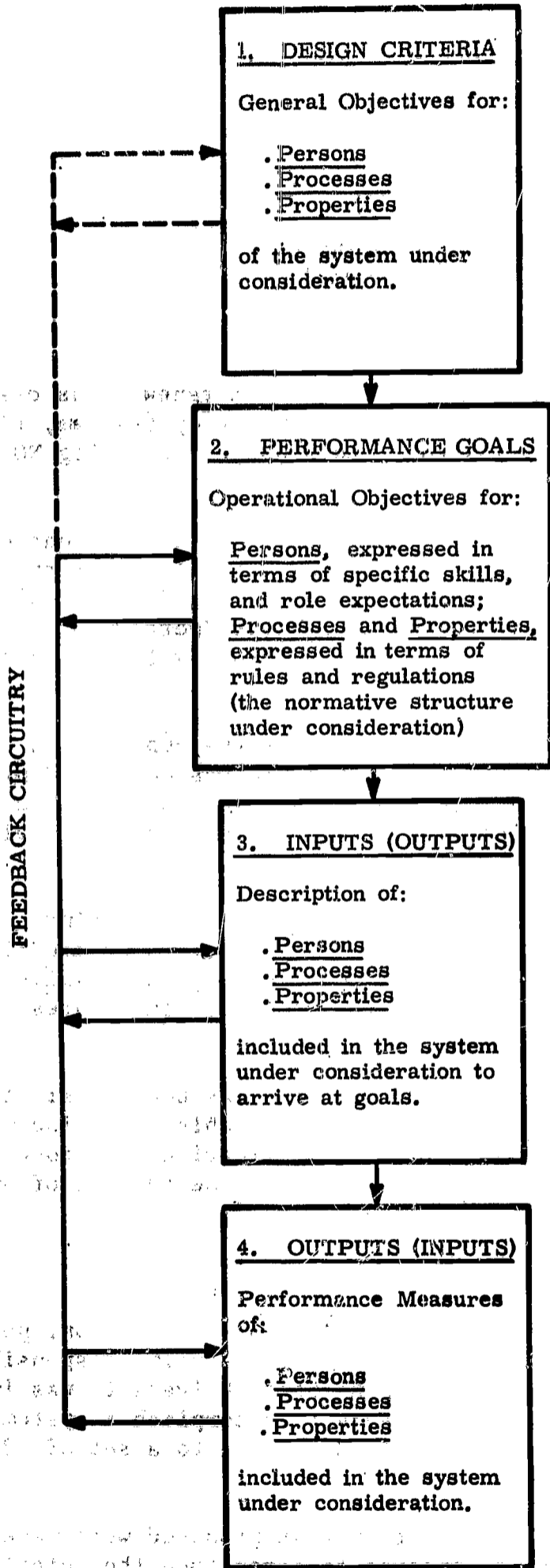
From the start of the current project to the present point, each step of process has been considered to be a tentative one, to be modified as warranted by feedback. We have on file, for example, thirty-five different interview protocols made prior to pilot testing, each one representing modifications resulting from field testing.

The advantage of applying NOBELSystem model has been this: the current output represents the latest process we have been able to devise modified as experience warranted. The disadvantage of modifications in process has been at times an unevenness of data treatment which as the results of analysis are reported will be disclosed.

#### B. MODIFICATIONS FROM PROPOSAL

Objectives 3-7 relate to sampling design, data collection, performance goal writing, analysis of data, and reporting. The prime responsibility of the project director and his staff at Wayne State University was implementing these objectives, i.e., a process necessary to accomplish a systematic collection and conversion of empiric data from offices to a set of educational performance objectives.

Two modifications of the process from that proposed were made. Each modification was made only as it appeared to strengthen the output. Neither



ANALOG SYSTEM MODEL  
FOR NOBEL

modification changed in any significant way the scope of work to be performed. The two modifications were: (1) change of data collection centers from nine to four and (2) change in form and format of performance goals to be produced from those of proposal specifications.

### 1. Change in Number of Data Collection Centers

In a judgmental sampling design, the following had been originally proposed for data collection:

Nine regional subcontracts will be arranged with major universities for regional data collection according to the nine regional subdivisions used for classifying and reporting U. S. Census data. (Lanham, 1967, p. 28).

The unwieldiness of training nine teams of data collectors, indeed, just insuring some uniformity of data collection, checking, and forwarding to a central location were noted early. To meet these anticipated difficulties within the limitation of resources, the decision was made to decrease the nine regions to four area centers representing four subdivisions used for classifying and reporting U. S. Census data. As stated in the proposal, our opinion continues to be:

We do not believe that geography will be a factor producing significant differences in performance goals developed from among the nine regions . . . . Even though differences in performance goals as between or among regions are found, data collected will not necessarily be irrelevant because of (a) The increasing mobility of the work force that necessitates a blending of preparation for employment over a wide geographic area, (b) The increasing concentration toward urban living (as recognized in our sample design) (Ibid.)

The change did have in our opinion the following benefits in improving the results reported here: (a) training dollar per interview case was decreased, (b) travel costs of data collection directors and/or central staff to meet were decreased, (c) area overhead costs were decreased over that proposed, and (d) central control problems of obtaining area output were within the resources available.

### 2. Change in Form and Format of Performance Goals

Originally proposed were specifications for three levels of performance goals: primary (terminal), interim, and prevocational. Primary goals were defined as:

A primary (terminal) performance goal is difficult to define in any absolute sense; however, it specifies a behavior critical to successful entrance and adaptation to an office job. As the behavior expected at the end of a business and office educational program . . . , primary goals are abstracted directly from tasks performed in an office. (Ibid., p. 12)



Interim goals were defined in the proposal as:

. . . significant achievement points leading to the attainment of primary goals. To develop interim goals, primary goals will have to be analyzed in terms of their prerequisites and difficulty. An ordering of difficulty of primary goals will provide some guidance to later sequencing of learning activities. In other words, some less difficult primary goals may become interim goals for more difficult-to-achieve primary goals. For example, "sorts toll tickets by customer account number," an easy-to-achieve performance, may be but one important activity leading to a more difficult posting performance goal. Such activities as sorting may thus form a set in which various dimensions of sorting, classifying, comparing, collating, matching, or sequencing form the base for determining interim goals necessary for the later achievement of a more difficult primary goal of posting as well as other primary goals (Ibid., p. 13).

Prevocational goals were defined in the proposal with the following three operational definitions:

(a) A foundation skill or role behavior necessary, in the broadest sense, for successful participation in work. For example, the galaxy of common data and information business forms (purchase orders, sales invoices, money and credit devices, and the like) may require performance related to input; handling or processing; and storage, retrieval or output of data and information as prerequisite to most office learnings.

(b) An occupational task which, because of its expected high motivational value, can be used as the vehicle for more general learnings. For example, we view the tasks of a reservation clerk in an airline or travel agency as providing potentially exciting tasks to be learned by some students. These tasks can be used as a vehicle to develop oral and written communication, computation, and social roles as they relate to customers and associates. These tasks may also contribute economic behaviors related to transportation as an industry and an individual's potential role therein.

(c) Because of the wide range of individual differences among learners in educational institutions, from disadvantaged to talented, the business and office task provides levels of difficulty in which learnings can be geared to differing individual needs and abilities to learn. For example, the pragmatic appeal of the business transaction developed at appropriate levels of reading comprehension could provide a prevocational goal direction for literacy training of some disadvantaged youth and adults (Ibid., p. 13).

The reported goals contained herein approach the definition of primary goals that have been analyzed into components or steps of performance. To the extent that steps or a sequence of steps of a task require learning, the analyzed steps approach our definition of interim goals. Claims are not made, however, that the steps of performance or combinations thereof represent identifiable "interim" or "prevocational" goals as purported to be

extracted from terminal behavior expected of workers embarking on an office job. The reasons for disclaiming the oversimplification of prescription have developed during the course of the investigation:

(a) NOBELSystem model assumes a knowledge of the characteristics of learners both in terms of his needs upon entrance into and through a preparation-for-office-job program, an assumption which demands further testing. What we know about individual differences of students, for example, does not admit to generalization of the prevocational competencies a ghetto youth, say, possesses upon entrance into an office preparation program, let alone the wide range of competencies that different students who can be characterized as "ghetto youth" may bring.

(b) The increased consciousness of business to community socio-economic-political responsibility is changing the expectations of employee performance. This increased business responsiveness to community need has been noted throughout the current phase of NOBELS and we predict must and will increase in the immediate future.

(c) Learning theory as pointed out by Bruner (1968) is not necessarily a guide to instructional strategy and in this instance strategy needed to bring about job competency. Many strategies for instruction based on the current output of NOBELS must be formulated and tested prior to determining interim or prevocational specifications.

For the reasons stated, empiric data collected in the current phase of NOBELS cause us not to assume that tasks of job performance are necessarily equal to what a learner needs to learn or the strategy of instruction needed for learning.

### C. CHRONOLOGY OF PROCESS

Completion dates of major events help to define four time periods in the current process of NOBELS: 1. planning and instrumentation, 2. pilot testing, 3. principal data collection, and 4. analysis and reporting results.

#### 1. Planning and Instrumentation (July 1, 1968 to January 1, 1969)

Planning involved rescheduling of some proposed events to correspond to contractual differences in funding extended over two fiscal periods rather than one period proposed. The rescheduling involved changing to four areas for data collection, inserting and planning a pilot data collection and testing period in two geographic areas, and preparing a training program for data collection.

##### a. Sampling Design

Through the feasibility study, a judgmental sampling design had been determined incorporating factors of data collection to yield office task data in proportion to demographic location of office workers as found in available U. S. Bureau of the Census Current Population Reports (1966) and the Census of Population (1960).

The factors thus considered were stated in the proposal as follows:

a. Data will be collected from office work stations filled by 16- through 24-year olds who have less than a baccalaureate degree. This guideline will insure data appropriate to the population of students most likely to profit from business and office education preparation: dropouts, high school graduates, and community college graduates. Studying workers with a minimum of eight years of experience, the guideline leads to data from a hierarchy of office jobs: those requiring a minimum of skill and role performance through those requiring a technical or even supervisory level of performance.

It could be argued that rather than office jobs held according to age, certain dictionary of occupational titles (DOT's) in office clusters should form the base for data collection. However, 1960 census data indicate that clerical and kindred workers, not elsewhere classified (NEC), represent approximately one-third of all office workers (3,016,387/9,617,487) and the NEC group is twice as large as the next highest classification of secretaries (3,016,387/1,492,964).

Such a condition suggests an amorphous grouping of job tasks in many office areas. It is our hunch from what is currently known about office jobs that overlapping of tasks exists among clusters of office DOT's (perhaps as high as three-fourths to four-fifths). In consequence, examining tasks of jobs actually held by 16- to 24-year olds appears to be more desirable than selecting clusters of DOT's.

b. Job stations held by male workers versus female will be examined in a ratio of approximately one to two. This ratio approximates that found to exist in clerical and kindred occupations in 1960.

c. Approximately two-thirds of the job stations examined will be from service; public administration; finance, insurance, and real estate; and manufacturing types of businesses. These areas of the standard industrial classification provide approximately two-thirds of all office occupations. Public administration and finance, insurance, and real estate represent those SIC's in which an increase in the number of workers is expected.

d. Approximately seven-ninths of all field data will be collected from standard metropolitan statistical areas of 100,000 or more population as this ratio corresponds to the proportion of all office workers employed in these areas to the total office employed, and the further urbanization of our population is a distinct trend. Four-fifths of the data will be collected from firms employing 100 or more workers for the same reason (Lanham, 1967, p. 29).

Item 2, the ratio of male to female cases, was later modified at the end of the pilot data to one male for every four or five females. We think now the one to two ratio as proposed was inserted as a typographical error. Certainly the census data more nearly approximates the one to four ratio. Census data also included a large number of federal government postal clerks, substantially a male population. Since the cases finally collected include only one government male postal clerk in the total sample, the decision to



change to a ratio of one male to four or five females appears to be warranted. The number of cases to meet the judgmental sampling design was proposed to be from 1000 to 1200 work stations. Actually, in pilot and principal data collection 1253 cases were received with 1232 usable cases forming the base of data on which performance goals were drawn and herein reported.

To rationalize the judgmental sample, our defense is the absence of resources to draw a more sophisticated sample that would be representative of the national population of office workers. The degree of error from uncontrolled variables of data collection contained herein would not, of course, be lessened by the most sophisticated of statistical sample design.

b. Instrumentation

Graduate students of the project director had tested a variety of office tasks data collection procedures throughout the feasibility study. As a result, an interview process was derived for the current phase of NOBELS data collection. The process as stated in the proposal, was described in terms of data to be collected from one work station as follows:

- a. Selecting and soliciting company support and selecting employees for study.
- b. Collecting normative data about each company
- c. Collecting normative data about employees studied
- d. Obtaining (with supervisory help) support of employees through indicating purposes and assuring anonymity and an absence of any evaluative data to supervision
- e. Distributing job task forms and illustrating (if possible in groups) completion of one day's listing of job tasks performed. Each task will be listed according to source, what was done, when the task was completed, and, as possible, contingencies or variable decision points.
- f. Collecting of job task sheets, possibly work samples, and interviewing the employee to complete activities within tasks
- g. Interviewing a supervisor for normative role information, collection of employee handbooks, directives, and the like (Ibid., p. 30).

To satisfy the foregoing, instruments developed contain the following:

- a. Institutional normative data such as location, size of company, SIC, and number of employees
- b. Office employee normative data such as age, sex, highest year of education completed, DOT and/or company job classification
- c. Form to collect employee task information
- d. Employee and supervisor interview protocols
- e. Training program content needed for collecting data and writing performance goals.

From the beginning of the funded project, about July 1, 1968, approximately eighty graduate students tested thirty-five variations of interview protocols, each modification of which was made to yield more nearly a maximum of task data within constraints of cost effectiveness.



Fundamental to eliciting the basic tasks performed by a worker in this formative stage was a one-day diary completed by the worker. Such a diary did provide concrete statements of tasks performed which were then analyzed. After the pilot data collection period, however, the task diary was eliminated and basic tasks performed were identified by supervisors and employees. The change, though causing a loss of some nuances of overall job performances, did cut data collection time per interview to equal available funds.

With the exception of the above change, data yielded from the two versions are comparable. The final form (Appendix B) provided information to serve the purposes listed in Chart 2.

Chart 2

Summary of Interview Protocol by Page, Source,  
and Purpose of Information

Page of Interview Protocol	Information Received from	Purpose of Information Collected
1	Supervisor	Data about company such as SIC, size, SMSA
2	Supervisor	Basic tasks performed by employee with weightings of factors of importance
3	Supervisor	Two task-related and two interaction (social role) critical incidents as observed in subject employee and described
4	Employee	Normative data such as age, sex, job classification, education completed
5	Employee	Same as page 2 except completed by employee
6	Employee	Each basic task identified on pages 2 or 5 was analyzed on a separate page 6 according to steps of performance, alternatives, and criteria of successful completion

c. Social Role Behaviors

In the proposal of NOBELS, a commitment was made to define behaviorally the characteristics, attitudes, and traits of workers in terms of the social context of office work. As proposed, four basic steps were involved:

- (1) A decision must be made as to what social roles the various persons are expected to perform. Some of these roles might be that of employee, consumer, civic participant, or literate adult.
- (2) These roles are then observed in life situations to determine the essential skills, attitudes, and rules which are necessary for successful performance.
- (3) Wherever possible, the skills, attitudes, and rules are quantified (enumerations, scores, physical measurements, and to a limited extent, rankings).

(4) These skills, attitudes, and rules become the foundation for development of social-role performance goals of the educational program and its evaluation design (Ibid., p. 16).

To accomplish the foregoing, a critical incident technique (Flanagan, 1954) was adapted and modified in the final interview protocol in which supervisors were asked to describe four observed happenings as follows:

"Regarding job performance of a basic task, would you cite a specific incident when this employee was particularly effective in performing this task?"

"In the worker's task of (recall from task list), you mention that an error could cause (choose one with great or moderate) consequences. Would you cite an example when this employee's performance was a little less than perfect."

"Since assuming this job, there must have been times when this employee did an outstanding job of working with someone else or in handling a situation with a customer or client either face to face or on the phone. Would you cite an example and tell me in what way this employee handled the situation effectively?"

"Now would you give me an incident when this employee was a bit less than 100 percent effective in his contact with other business people--either in the office or with your business contacts?"

Eliciting critical incidents, especially unsuccessful or negative ones, was reported by interviewers to be a difficult task. Supervisors were frequently reluctant to report incidents that reflected unfavorably on their employees. Further, approximately one-fourth of reported behaviors were generalized such as "He's always pleasant on the telephone" rather than specific incidents such as "Last week, President X remarked how helpful he was in collecting information needed for the board meeting." This difficulty of generalized behaviors being reported probably occurred because of a weakness in training interviewers to probe further for the desired specific incident. Despite weaknesses, critical incidents collected, both task related and interaction, have been classified, and provide an output of the current report. The interaction critical incidents were analyzed by faculty at the University of Georgia under the direction of Calhoun (1970) and our reporting of social role performance goals is from their final and more complete report.

#### d. Training Program Development

Concurrent with the development of instruments was the development of a training program for area project directors and their interviewers. A consultant in interviewing methodology was retained to help train the central staff and develop that portion of the training program.

In cooperation with Detroit Edison Company personnel, six interviews with supervisors and their employees were videotaped as case materials to be used at a central training session.

A manual of NOBELS background information and process then developed was prepared for each interviewer to be used as content of the training session in the pilot study and later as reference.

## 2. Pilot Testing, January 1 to May 31, 1969

Two contracts for pilot testing were negotiated with the University of California at Los Angeles and the University of Georgia. A part of the schedule of work at the University of Georgia was in turn completed through the University of Tennessee. Completion of major events in the pilot testing were (a) February 17, 1969, training institute of pilot testing area directors and their interviewers; (b) April 20, 1969, pilot data from a minimum of seventy cases in each location completed and reported (c) May 31, 1969, review and modification of process preparatory to principal data collection.

### a. Training Institute

The agenda of the training institute held in Detroit February 14-17, 1969, is appended. E. J. Morrison, research coordinator, The Center for Research and Leadership Development in Vocational and Technical Education, Mrs. Sue Smock, consultant on interviewing techniques, and Bruce Tuckman, Rutgers University, were special consultants complementing the project directors staff in conducting the institute.

Six Detroit Edison Company videotaped interviews were the raw case material used in training. The institute was completed with a live interview conducted by two interviewers with a Detroit Edison Company supervisor and an office employee.

Key people from two institutions other than pilot area institutions that were to be used in principal data collection also attended: State University of New York at Albany and University of Minnesota.

### b. Pilot Data Collection

The process for data collection in each of the pilot testing areas follows:

- (1) By letter or phone, a company was contacted to explain the project and to secure permission to conduct interviews.
- (2) The number of interviews (not more than four in one company) and departments involved was determined and dates set for interview of supervisor.
- (3) An interview with the supervisor of the employee was conducted.
- (4) The employee performing in the job to be studied was then interviewed. The purpose of NOBELS was explained and participation in the project solicited. An explanation of the daily log was given, the forms left, and a future interview date set.
- (5) The interviewer returned on the specified date, picked up the daily log, and coded the activities according to the following scheme of basic, secondary, special, advanced, ancillary, and changing. Task classification definitions adapted from Morrison (1967) follows:

(a) Basic. Tasks which constitute the central purpose or mission of the job. These tasks will be described in detail as to conditions, contingencies, steps, and (as possible) success criteria. These tasks must be mentioned as being most important and/or most time consuming by the employee and/or the supervisor in their respective interviews. Performance goals will be written for these tasks.

(b) Secondary. Tasks which are closely related to, but not a part of, the central purpose of the job--not mentioned as most important or most time consuming by employee or employer. These tasks will be described in detail as to conditions, contingencies, steps, and (as possible) success criteria. Performance goals will be written for these tasks.

(c) Special. Tasks that are rarely performed and/or not closely related to the central purposes of the job. These tasks will be described as to conditions and processes, but performance goals will not be written.

(d) Advanced. Tasks that require specialized training and/or job experience for their performance and which are performed by only the most senior workers. These tasks will be described as to conditions and processes, but performance goals will not be written.

(e) Ancillary. Tasks for which very little education is needed. Dusting, preparing coffee, delivering items, clipping ads, or other tasks of this nature are to be included in this category. These tasks are listed but not described.

(f) Changing. Tasks that are known by the employee or supervisor to be in the process of change because of technology or other conditions. These are tasks which will be changed so drastically that a completely new task will result from the change. These tasks are described briefly, along with the change that will occur. Performance goals will not be written for these tasks.

(6) The interviewer talked with the office employee to determine the basic and secondary task performance sequence in steps, alternatives, and criteria for acceptable performance.

(7) As viewed by the employee, the interviewer reported basic and secondary tasks in performance statement form, and through the regional director forwarded completed interviews to the project director.

(8) Letters of thank you were sent to supervisors and employees who participated.

#### c. Review and Modification

Throughout the pilot study, interviewers provided feedback about the process. Some of the problems were: (1) the time involved in getting to and from designated population centers; (2) the time and cost involved in two visits to each company, sometimes three due to a worker's absence or inability to keep the daily log by the specified date of the second interview; (3) difficulties encountered in capturing from supervisors critical incidents; (4) delineation of tasks and task steps from the log; (5) basic



task not listed on a particular day's log; and (6) time required to write task statements (from 6 to 12 hours for a single interview).

In response to the foregoing, modifications in instruments and process resulted in "Instructions for Collecting Data and Writing Performance Goals," dated June 1969 (Appendix C). The following guides developed from pilot experiences were also agreed to be followed by all area directors in the principal data collection:

1. Because of absenteeism, have a back-up person selected at a company to be interviewed.
2. Review all cases for adequacy and revision prior to mailing to the central office.
3. Request typewritten reports to be sent to central project director.
4. Use the Taxonomy of Office Activities for Business and Office Education as a source to help standardize terminology.
5. Send to the central office by first-class mail 10 to 25 cases in a package at one time.
6. Select not more than one person in the same job classification within a department.
7. Select not more than seven workers from any one company.
8. Interview not more than two workers in the same job classification from any one company.
9. Urge data collectors to support interview cases with job descriptions, work samples, and forms.
10. Check data collectors' work especially to delete personal names and to insure use of action verbs in task statements and steps.
11. Limit basic tasks to not more than six activities for any one worker.
12. Indicate key steps of the sequence of activities making up the task.

### 3. Principal Data Collection--June 1, 1969 to October 1, 1969

Within the constraints of the project proposal and agreed upon policies and process, area directors were in complete charge of employing interviewers, scheduling interviews, monitoring completed interview forms, and forwarding completed cases to the central office at Wayne State University.

All interview protocols and training materials were supplied centrally. A research assistant from the project directors staff met in each of four areas to support the training programs in the areas.

In addition to the area monitoring, each case received centrally was checked for completeness and apparent agreement with standards. Clarification by area director was requested for cases deviating from agreed upon policy or process. In the foregoing way, all cases from each of the four areas were received in Detroit prior to October 1.

### 4. Analysis of Data--to March 31, 1970

Developing classification schemes, coding, and keypunching data, obtaining computer printouts of manipulated data, and preparing summaries of office tasks to develop educational performance goals represent major activities in analyzing data.

a. Developing Classification Schemes

Coding used for keypunching and its verification is described in Appendix D. Developing classification schemes for tasks, for steps of tasks, and for critical incidents each provided a set of perplexing problems that will be described.

(1) Classification of Tasks. Attempts were made to classify statements of tasks by verbs of the Taxonomy (Huffman, Brady, et al., 1968). Verbs of the Taxonomy did not provide an adequate clue to represent tasks.

Gradually developed to the time of coding and keypunching was a business functions scheme in which a manufacturing model was used to describe nine major areas of functions and a total of 99 subfunctions as follows:

Chart 3

Two-Digit Code for Classifying Tasks by  
Nine Major Functional Areas

<u>First Two-Digit Code</u>	<u>Functional Area</u>
01 - 19	Accounting and Computing
20 - 29	Data Processing
30 - 39	Personnel
40 - 49	Production
50 - 59	Purchasing
60 - 69	Inventory, Shipping, and Receiving
70 - 79	Sales
80 - 89	Communication, Oral and Written
90 - 99	Other Services

In addition to function within area, tasks according to their result, reason or "why" for being performed were also coded. Added as the third and fourth digit task code was the following major classifications of "why" or results:

Chart 4

Two-Digit Code for Classifying Tasks by  
Nine Results of Performance

<u>Second Two-Digit Code</u>	<u>Result Classification</u>
01 - 19	Source Documents
20 - 29	Negotiable Instruments and Investments
30 - 39	Correspondence and Mail
40 - 49	Electronic Data Processing
50 - 59	Files
60 - 79	Reports, Tabulations, and Charts
80 - 89	Inventory (Intransit, Warehouse)
90 - 99	People and Ideas

All tasks were coded then, by a four digit number with the first two digits representing a functional area or "what" and the last two digits, the

"why" or object of the task performed. All such tasks thus coded were reviewed and discrepancies discussed and changed by consensus.

Some difficulties were experienced in reaching agreement on the function code: (1) the manufacturing model of functions did not accommodate client related services of government and other service type industries, e.g., hospitals and financial institutions; (2) certain service functions such as typewriting could be classified under two headings, a function such as "personnel" and "communication, oral or written" heading. By arbitrary definition such as, "All typewriting activities will be classified under "communication, oral or written" such difficulties were resolved--at least through the coding and keypunching stages for computer manipulation.

The second two-digit code, the result or "why" classification proved to be less dependable. The confusion between "what" and "why," the similarity of several "what" and "why" classifications, e.g., data processing as a function and data processing punched cards or printouts as a result as well as the multiplicity of some results that could not be defined under one category. The discrepancy rate as between coders was high, and while these discrepancies were discussed and some agreement reached for coding purposes, we do not now rely on the printed results for any major analysis of the "why" of office task performance.

(2) Classification of Steps of Tasks. A listing of 108 verbs was derived on which to code verbs of steps and alternatives of analyzed tasks. The basic list and their synonyms were developed by one person who did the first coding of all verbs. This coding was checked for consistency by one other person. As reported elsewhere, we now recommend a synonym list of 57 verbs (Lanham, Weber, 1970). This recommendation is based on examination of printouts as reported herein.

(3) Classification of Critical Incidents. Classification of 780 critical incidents collected in the pilot period yielded a classification based on the worker in relation to where the incident occurred in the system. It was not until the principal data collection period that task related and interaction incidents were attempted to be collected. These incidents were coded according to the following: Cognitive skills; Checking skills; Communication skills; Psychomotor skills; Work habits; Attitude, Affective, Within; Social skills or graces; Interpreting system; and Instructing, Creating.

The foregoing scheme was used to code critical incidents for computer printouts. We were dissatisfied with the classification, however, because many of the "task related" incidents as recorded were interaction incidents and vice versa. We were also dissatisfied with the scheme for classifying interaction incidents. For both reasons, incidents were by content physically separated according to task related and interaction and a new interaction classification scheme developed as follows:

- I. Worker's Perception of His Role Expectations Within the Formal System
  - A. The Internal (Closed) System
    1. Relation to Superiors
    2. Relation to Peers
    3. Relation to Subordinates

- B. The External (Open) System
  - 4. Relation to Customers or Clients
  - 5. Relation to Sales or Service Personnel
  - 6. Relation to Others (Visitors, Applicants, Donors)
- II. Worker's Perception of Relationships Apart from Role Expectations
  - A. The Internal (Closed) System
    - 7. Relation to Superiors
    - 8. Relation to Peers
    - 9. Relation to Subordinates
  - B. The External (Open) System
    - 10. Relation to Customers or Clients
    - 11. Relation to Sales or Service Personnel
    - 12. Relation to Others (Visitors, Applicants, Donors)

In addition, six descriptors were derived to classify the type of behavior exemplified by each incident. These descriptors follow:

- A. Telephone Communication (Did the incident occur on the telephone?)
- B. Information (Was information concerning job content or company policies necessary for successful interaction?)
- C. Reaction to Stress (Was the worker able to control self and handle unusual or difficult situations?)
- D. Judgment/Decision-Making (Did the worker have to make a decision or use judgment for successful interaction?)
- E. Initiative/Creativity (Did the worker use these attributes in interacting?)
- F. Social Sensitivity (Did the worker exhibit willingness to help, tact, courtesy, or social graces in dealing with others?)

In turn, the University of Georgia manipulated the newly separated interaction incidents according to the new scheme. While task related incidents were not reclassified or remanipulated after coding for computer printouts, examples of task related incidents are inserted among functional area of performance goals as presented in Chapter IV.

b. Coding, Key punching, and Printouts

All coded data and code sheets were double checked. Key punching and verifying were farmed out to skilled technicians. Data processing was planned and implemented in conjunction with a person familiar with the Wayne State University Computer Center and research data manipulation.

c. Preparing Summaries of Office Tasks

Data reduction caused some classification problems. Our first problem was organizing and reporting tasks as they were recorded. Books of task sheets were first organized according to the major "what" classifications previously described.

Because of this handsorting and synthesis process, we decided to modify further the "what" classification to deal with the classification difficulties previously noted, i.e., (a) the difficulty of dealing with government and other tasks of client related services and (b) the dual classification of such services as typing performed as a personnel function.



(a) Our response to the problem of client related services was twofold. First, a function of "client related services" was added that would include such tasks related to securities, insurance, education, and hotel and motel. Second, because of the difficulty experienced we contemplated the differences that the type of business makes on office task performance. To determine the difference, task sheets from two service industries, banking and medical, have been separated and office performance in each is reported separately.

(b) Dual classification of interdepartmental services were also re-considered. The arbitrary rule followed in coding typewriting tasks, "All tasks in which typewriting is performed will be classified under typewriting in 'Communication, oral and written' biased coded data toward present office education curriculum; i.e., typewriting courses are now classified according to the tool used rather than the function served. In consequence, wherever an interdepartmental service (except data processing) could be identified with a function other than a general services function, it was so reclassified. In some typing, transcription, filing, mailing, and stenographic tasks performed in "pools" or service departments, such functional identification was not possible. In data processing our response was different. Most data processing and computer operations are performed in a service department. Further, recognition that major changes in office task performance are primarily the result of computer technology caused us to leave electronic data processing tasks as a separate set of performances whether or not they could be classified with some other function.

It is from this reclassification that summaries of tasks as generalized from our data were made and from these the 375 performance goals in the form reported in Chapter IV evolved.

#### D. SUMMARY

No claim is made that the report represents a final set of performance goals. Following a system model, our process has been developed, modified, and changed to report performance goals within the scope of our data. In Chapter III, normative data describing the sample, task data, steps of performance, and critical incidents are presented. Performance goals derived from the current phase of NOBELS are presented in Chapter IV followed in Chapter V by conclusions and recommendations for next steps in curriculum renewal.

### Chapter III

#### SUMMARY OF NOBELS DATA

##### A. AREA DATA COLLECTION

A total of 1253 interview cases were collected as the base for preparing performance goals: 243 in the pilot and 1010 in the principal data collection period. A summary of cases collected is contained in Table 2.

TABLE 2

##### Summary of Interview Cases by Areas

<u>Data Collection Institution</u>	<u>Pilot</u>	<u>Principal</u>	<u>Total</u>
State University of New York at Albany		252	252
University of California at Los Angeles	75	302	377
University of Georgia	86	252	338
University of Minnesota		204	204
Wayne State University	82		82
TOTALS	243	1010	1253

Of the 1253 cases, 20 pilot and 1 principal collection period cases were not included in the final 1232 cases on which analyses were based. Pilot data are included in analyses when they were parallel to principal data collection. Graduate students in the project director's classes collected data in the pilot period but not in the principal data collection period.

Critical incidents collected in the pilot data are reported separately because the questions in the principal data collection instrument differed somewhat from those of the pilot. A listing of basic tasks and weightings as contained in final interviews were not collected in the pilot period.

Data collectors were typically certified business teachers attached to the area data collection institution as graduate students. Twelve interviewers were used in pilot data collection at the University of California and University of Georgia; 66 in the principal data collection at four participating institutions. Each team of data collectors was supervised by one or two research associates at each institution.

The following statements from area final reports characterize the quality of data collectors used.

The University of Minnesota was very fortunate in the quality of the people if found available and were willing to participate in the NOBELS project. Each of the persons involved had several years of

business teaching experience as well as a considerable amount of office work experience (Price and Hopkins, 1970, p. 2).

The data collectors did not miss a scheduled assignment during the entire period of the project. The number of weekly interviews ranged from nine in the first week with only one data collector to sixty-three in the tenth week with eight data collectors (Erickson, p. 5).

In theory, it would be wise to limit the interviewing to a rather small corps of workers with good background, adequate maturity, and complete understanding of the purpose, coupled with genuine professional zeal. Several such interviewers were used; however, their interest tended to flag after they had done a dozen or more interviews . . . . Therefore, a larger number of people were used (Tonne, 1969, p. 5).

In reference to Tonne's quote, 38 interviewers were used in the New York data collection compared with 9 in two areas and 11 in one other area during the principal data collection period.

Each area director was responsible for organizing and implementing data collection within his area. Typical of the planning is that of Calhoun (1970, p. 4) in Georgia for principal data collection.

1) A training session was held by the area project director supported by one central project director's staff. In the training session, revised forms and interview techniques were discussed and practiced.

2) Data control forms and procedures such as lists of responsibilities, itinerary, progress report forms, and sample letters to be used in contacting companies were developed and implemented.

3) Initial contact of a company was made and interviews were arranged by an area supervisor or research associate.

4) Typed interviews were received by the project director, checked, and revised to forward to the central office.

## B. CASES COLLECTED COMPARED WITH JUDGMENTAL SAMPLING DESIGN

### 1. Age of Workers

All data proposed were to be from 16- to 24-year olds. In the pilot data collection period, above 24-year olds were agreed to be acceptable cases provided they were judged to be holding an entry job. Twelve such workers in number, or 1 percent of the total, were included in pilot cases. Strict adherence to the 16-24 year age limits was insisted upon in the principal data collection. Classification of interview cases by age is shown in Table 3.

The arithmetic mean age of the 1232 workers was 21.1 years with the modal years of 20 and 21.

TABLE 3

Interview Cases Classified  
by Age of Worker

<u>Age</u>	<u>Number</u>	<u>Percent</u>
16	3	-
17	25	2
18	90	7
19	161	13
20	205	17
21	209	17
22	198	16
23	153	12
24+	<u>188</u>	<u>15</u>
TOTALS	1232	99

To the extent that our sample of cases represents the marketplace for office jobs, the low proportion of 18 years or younger workers indicates that office work does not seem to be a fertile market for less than the high school graduate.

The basic tasks of 1232 workers were classified according to nine functional areas of performance from 4548 detailed basic task sheets (page 6s of the interview protocol). Plotted according to age (Table 4), the mean age of performers of sales and client related services as well as communications--stenography, typewriting, and oral (M of both groups was 20.9 years) was just slightly under the mean age of all workers (M = 21.1 years).

Those tasks classified as other services, principally filing and mailing tasks, provided the lowest mean age of 20.6 years. Mean age of performers of production tasks was highest (21.8 years) followed by purchasing (M = 21.5), electronic data processing (M = 21.4), and personnel (M = 21.3).

Assuming a tendency for simpler tasks to be performed by younger workers, curriculum builders might well consider inclusion of filing and mailing task performances as (1) foundation learnings leading to more complex office task performances and (2) most probable first office task assignments for inexperienced entry workers. The assumption may not hold however. For example, because of previously inadequate secondary school curriculum for preparing students to perform data processing tasks, most training in this area has been on-the-job and would naturally be performed today by office workers with a mean age higher than beginning workers.

To avoid future misunderstanding, the functional classification of accounting and computing might well have been relabeled numerical data handling, other than electronic data processing, or clerical functions performed in an accounting department. The number of tasks collected requiring application of "principles of accounting" as taught in schools or "double entry bookkeeping" as a system of financial transaction analyses was minimal.

Following the rule that all typewriting activities were to be coded as "communication--stenography, typewriting, or oral," this area of service tasks leads all other functions, totaling 1722 in number or 38 percent of



TABLE 4  
Functional Classification of 4548 Office Tasks  
by Age Groups and by Number of Workers

Function of Task	16-18		19-21		22-24+		Totals	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Accounting and Computing	92	20	504	23	470	24	1066	23
Electronic Data Processing	15	3	121	6	142	7	278	6
Personnel	14	3	91	4	108	6	213	5
Production	0	-	14	1	20	1	34	1
Purchasing	5	1	50	2	60	3	115	3
Shipping and Receiving	11	3	32	1	50	3	93	2
Sales and Client Related	12	3	67	3	54	3	133	3
Communication--Stenography, Typewriting, Oral	183	39	823	38	716	37	1722	38
Other Services (mail, files, etc.)	<u>133</u>	<u>29</u>	<u>446</u>	<u>21</u>	<u>315</u>	<u>16</u>	<u>894</u>	<u>20</u>
TOTALS	465	101	2148	99	1935	99	4548	101

all coded tasks. Compared with the later hand reclassification of task sheets (as described in Chapter II) in which these kinds of tasks were attached to other than service functions such as sales or personnel, the area of communication--stenography, typewriting, and oral later accounted for 945 task sheets in number or 20.7 percent of all reclassified tasks.

## 2. Educational Background

None of the 1232 workers in cases submitted possessed a baccalaureate degree. To determine this fact, the interviewee responded to two questions:

23. Highest School Grade Completed: K-8 9 10 11 12 13 14 15 16+

24. Bachelor's Degree: Yes No

The seven workers listed in Table 5 as completing 16 years of education without holding a baccalaureate degree is not in error. In each of these cases, interviewers rechecked to insure that the education was of "less than baccalaureate degree" as specified in the proposal. While the highest grade completed was not recorded for 19 workers, each interviewer had checked that the worker did not have a baccalaureate degree.

Even more clearly than the tables on age, Table 5 shows the present tendency of employers to hire at least high school graduates for office jobs. Fewer than 4 percent of the 1232 office workers had completed less than the twelfth grade in school. At the higher grade levels, however, those beyond the community college level account for approximately 5 percent of the workers.

## 3. Job Classification

While job classification was not a factor in the sample design, a modification of the Administrative Management Society office job clusters was

used to classify 1232 workers. Table 6 shows numbers and percents of workers in each classification and the mean age of workers in each cluster.

TABLE 5

Highest Grade Completed by 1232 Office Workers		
<u>Highest Grade Completed</u>	<u>Number</u>	<u>Percent</u>
Ten	9	0.7
Eleven	33	2.7
Twelve	672	54.5
Thirteen	247	20.1
Fourteen	191	15.5
Fifteen	54	4.4
Sixteen	7	0.5
Grade Not Recorded	19	1.5
<b>TOTALS</b>	<b>1232</b>	<b>99.9</b>

TABLE 6

Number, Percent, and Mean Age of 1232 Office Workers (16-24 Years of Age) by Job Classification Clusters

<u>Job Classification Clusters</u>	<u>Number</u>	<u>Percent</u>	<u>Mean Age</u>
Mail Clerk and Messenger	29	2.3	20.1
File Clerk	41	3.3	20.5
Clerk Typist	171	13.9	20.6
General Clerk	135	11.0	20.9
Telephone Operator and Receptionist	48	3.9	21.1
Stenographer and Secretary	285	23.1	21.1
Office Machine Operator	32	2.6	21.3
Public Contact Operator	77	6.3	21.4
Accounting Clerk	251	20.4	21.4
Material Support	35	2.8	21.7
Data Processing Operator	128	10.4	22.4
<b>TOTALS</b>	<b>1232</b>	<b>100.0</b>	<b>21.1</b>

The findings reported about mean age in terms of classification of tasks by functions (Table 4) seem to hold for job classification clusters. The mean age of mail clerks, messengers, file clerks, clerk-typists, and general clerks were below the mean of all workers ( $M = 21.1$ ) suggesting the simpler job tasks to be found in these clusters. That stenographers and secretaries, as revealed in Table 6, are older than clerk typists would be expected because of the usual added skill of shorthand required of stenographers as well as because of the added maturity expected of some high level secretaries approaching an administrative assistant level of classification. Although the general clerk cluster was slightly below the mean, further analysis showed a bimodal distribution according to age with a low and a high mode. As an observation of the authors, some general clerks would appear to be assigned a set of simple entry level tasks while others are assigned higher level performances. Of course, that some low talented individuals continue performance of nonskillful tasks regardless of age must also be considered.

When the interview cases were grouped according to departmental assignment and job cluster (Table 7) accounting clerk, stenographer-secretary, typist clerk, and the general clerk were represented in each department. Accounting, credit; general, indeterminate; and services were the three departments that had interview cases appearing in each of the eleven job classification clusters.

TABLE 7

1232 Interview Cases Grouped by Job Classification  
Clusters and Departmental Assignments

JOB CLASSIFI- CATION CLUSTER	DEPARTMENTS									TOTALS	
	1	2	3	4	5	6	7	8	9	No.	Percent
1 - Accounting, Credit											
2 - Data Processing											
3 - Personnel											
4 - Production											
5 - Purchasing											
6 - Receiving and Shipping											
7 - Sales											
8 - Services											
9 - General or Indeterminate											
Stenographer, Secretary	30	3	37	15	8	1	27	52	112	285	23
Accounting Clerk	181	4	4	4	3	1	10	10	34	251	20
Typist Clerk	22	2	18	7	10	1	13	44	54	171	14
General Clerk	21	3	11	7	7	2	12	19	53	135	11
Data Processing Operator	21	87	1	1	0	1	4	3	10	128	10
Public Contact Operator	22	0	6	1	1	0	7	19	21	77	6
Telephone Opera- tor, Reception- ist	5	1	7	0	0	1	0	13	21	48	4
File Clerk	5	1	2	0	1	0	5	15	12	41	3
Material Support	5	1	0	1	3	6	5	5	9	35	3
Office Machine Operator	11	3	0	0	0	0	2	11	5	32	3
Mail Clerk, Mess- enger	3	1	0	0	0	0	0	20	5	29	2
<b>TOTALS</b>	<b>326</b>	<b>106</b>	<b>86</b>	<b>36</b>	<b>33</b>	<b>13</b>	<b>85</b>	<b>211</b>	<b>336</b>	<b>1232</b>	<b>99</b>

The curriculum implications of the foregoing discussion are not clearly delineated. Should the curriculum be based on the assumption of mass education serving a maximum of youth with a single series of learning experiences? If so, preparation for office jobs should include a range of typical job tasks that represent the work performed in many functional departments. This shot gun type blast curriculum arrangement seems to be feasible considering present public school institutional arrangements. Still, office curriculum must provide for the heuristics or the "learning to learn" behaviors that must be available for the beginning worker to gain the breadth and depth of performance in the specific job and specific department in which the beginner later finds himself.

We do not rule out the further development of autoinstructional technology that will permit a zeroing in in depth on a limited set of a specific department's performances, such as performances in the personnel department. Ideally, the breadth of interdepartmental performances and the interrelatedness of, say, the personnel department's performances to those of each other department and thus the total enterprise may best be learned through in-depth instruction of actions to be performed in the personnel department, as well as every other department. Still curriculum developers of 1970 should probably develop in an ascending spiral of difficulty--from simple to complex--performances expected in a variety of functional departmental business units. To accomplish the foregoing spiral of simple to complex learnings, further study to arrange the current performance goals according to levels of difficulty will be required. In the meantime, professional judgments will need to be used to accomplish the present desired learning sequence, the result in expected learning behaviors then to be classroom tested.

#### 4. Sex and Departments

Table 8 is grouped according to sex of the workers interviewed and the department to which they were attached. By ratio of males, 177 of 1232, is equal to 14 percent of the sample, or a ratio of approximately 1 male to 7 females rather than the proposed 1 to 4 or 1 to 5. Since interviewers were attempting to provide one male case for every two female cases prior to modification of the ratio as described in Chapter II, we are unable to account for the discrepancy.

TABLE 8

1232 Interview Cases Grouped by Sex and  
Departments to Which Workers  
Were Assigned

DEPARTMENT	MALE		FEMALE	
	No.	Percent	No.	Percent
Accounting, Credit	52	29	274	26
Data Processing	27	15	79	8
Personnel	3	2	83	8
Production	8	5	28	3
Purchasing	3	2	30	3
Receiving and Shipping	4	2	9	1
Sales	11	6	74	7
Services	35	20	176	17
General, Indeterminate	<u>34</u>	<u>19</u>	<u>302</u>	<u>28</u>
TOTALS	177	100	1055	101

#### 5. Standard Industrial Classification

By design, approximately two-thirds of the job stations examined were to be from SICs of service; public administration; finance, insurance, and real estate; and manufacturing types of businesses. In Table 9, the 1232 cases are arranged according to these four SICs plus agriculture, transportation, and wholesale and retail trade types of businesses. Of the 1232



cases, 1007 in number, or 81.7 percent, were accounted for in the designated four SICs, a 15 percent higher bias than proposed.

TABLE 9

## SICs of 1232 Interview Cases

SIC	Number	Percent
Service	157	12.7
Public Administration	220	17.9
Finance, Insurance, Real Estate	253	20.5
Manufacturing	377	30.6
Agriculture	28	2.3
Transportation	97	7.9
Wholesale and Retail Trade	<u>100</u>	<u>8.1</u>
TOTALS	1232	100.0

What differences in preparation should the type of business make in a learnings program? Pondering the above question caused us to isolate the basic task sheets from two service type industries: banking and medical. The educational performance goals from these are presented separately in Chapter IV. We are not sure though that curriculum implications are clear. In a town dominated by one industry, the peculiar jargon and processes that attach to the industry could be taught in school. Yet, in large metropolitan areas having many different SIC businesses the potential of formal teaching of all technical jargon is not feasible. Perhaps the most feasible direction without further evidence is to include in learnings programs job tasks representing industries which by census data employ the most office workers, now and in the future. In addition to the four SICs accounting for two-thirds of office workers (service; public administration; finance, insurance, and real estate; and manufacturing) it will be remembered that wholesale and retail trade SIC is expected to increase by 1 million clerical and kindred workers from 1960 to 1975 (Table 1, p. 4).

Again, as in the discussion of job classifications and departmental assignments of workers (Table 7), the "learning to learn" concept would seem to be an office curriculum ingredient that must be included. Office curriculum in public education can not usually anticipate specific department or type of business in which trainees will later obtain employment. Much of the breadth and depth of behaviors necessary for successful job performance will have to be learned on the job. And in this job learning, the heuristics of learning would seem to be necessary because of the unevenness of business operated on-the-job-training programs.

#### 6. Standard Metropolitan Statistical Areas

Geographic size in which businesses were located was proposed as a factor in the judgmental sampling design. A ratio of seven-ninths of all field data were to be collected from SMSAs of 100,000 or more population. Of the 1232 cases, 1109 cases in number, or 90 percent, were from SMSAs of 100,000 or more, again a sample bias toward metropolitan areas. In terms

of the future office, the sample bias is toward the trend of urbanization. In plotting SMSAs according to departmental affiliations, as we have done in Table 10, we find little difference in affiliation as between those cases from SMSAs of over 100,000 and those cases from less than 100,000 geographic areas.

TABLE 10

1232 Interview Cases Grouped by Department Affiliation in Large (+100,000) and Small (-100,000) Population Areas

DEPARTMENT	No.	Percent	No.	Percent
Accounting, Credit	287	26	39	32
Data Processing	96	9	10	8
Personnel	74	7	12	10
Production	30	3	6	5
Purchasing	29	3	4	3
Receiving, Shipping	10	1	3	2
Sales	80	7	5	4
Services	197	18	14	11
General, Indeterminate	<u>306</u>	<u>28</u>	<u>30</u>	<u>24</u>
TOTALS	1109	102	123	99

#### 7. Size of Companies

Four-fifths of the cases were proposed from companies employing 100 or more workers. Of 1232 workers, 1003 cases in number, or 81 percent, represented the larger companies so defined (Table 11). As plotted according to departmental affiliations of workers, differences noted are those that would be expected. Double the percent of workers in small companies than in large were "general or indeterminate" suggesting a less formal departmental organization in the small company. Also suggested is the broader classification of workers toward the "Jack-of-all-trades" kind of office worker in the smaller companies. That the large companies have double the rate of workers in data processing and service departments (such as central duplicating or files) than in small is expected.

#### 8. Adequacy of the Sample Cases

Claims to a statistically drawn sample of cases have not been made. Discrepancies from the judgmental design have tended toward greater representation of the large company in the urban setting. That a statistically drawn sample would have yielded dramatically different results utilizing our instruments is questionable. At least one area director commented on the redundancy of the data collected:

A considerable number of the more thoughtful interviewers suggested that after a few cases, they were not securing essentially new data. Analysis of the interview forms by the investigator and others who studied the write ups gives the same impression (Tonne, 1969).

TABLE 11

1232 Interview Cases Grouped by Department Affiliation in Large (100 plus employees) and Small (less than 100) Companies

DEPARTMENT	NUMBER AND PERCENT OF EMPLOYEES			
	+100		-100	
	No.	Percent	No.	Percent
Accounting, Credit	272	27	54	24
Data Processing	95	10	11	5
Personnel	78	8	8	4
Production	33	3	3	1
Purchasing	27	3	6	3
Receiving and Shipping	12	1	1	-
Sales	69	7	16	7
Services	190	19	21	9
General, Indeterminate	<u>227</u>	<u>23</u>	<u>109</u>	<u>48</u>
TOTALS	1003	101	229	101

Yet, some evidence would indicate that data collected do not represent a saturation of all potential office tasks performed within a particular type of business. For example, of 186 basic tasks of hospital and medical service workers as separated, none represents purchasing, drug dispensing, inventory, or food-handling type tasks. The sample was either too small or the selection of medical office workers by personnel supervisors was biased toward office workers performing client related services.

As an opinion, a more serious criticism of data reported can be leveled at the limitations of the method. Our study of the basic tasks of office jobs as identified by supervisors and employees does not get at the depth of performance we might like. Since workers were not observed but interviewed, information about criteria of successful task performance as collected is too generalized to be educationally meaningful. We are unable to prepare criteria of successful task performance, in other words, from interviewee's definitions of success.

Some would argue that narrowing the study to a particular job classification would permit the analysis in depth. Most of those participating in NOBELS could see a multitude of additional studies to secure different analyses of office performances. Representative of the view is the following from one area director:

In any study of the future, it may be found wise to reduce the number of cases and study them in much more detail. The usual interview with an employee took around an hour and a half and the time for write up somewhat longer. It would be difficult to get more time from supervisors and employees; in fact, the amount of time spent on the job was probably caused by the awareness of need for limitations of time. Nevertheless, consideration should be given to devoting more time to each interview even at the expense of securing fewer interviews. (Tonne, 1969).

Within the limitations cited, the data represents a first systematic collection of office performances representing the basic tasks of 1232 office workers located in four regions of the country. That other types of study will contribute added perceptions or strengthen the current outputs is to be expected. Yet NOBELS does provide a necessary foundation of substantial data to which others can add.

### C. CRITICAL REQUIREMENTS OF OFFICE WORK

#### 1. The Worker in Relation to His System

In the pilot data collection, 780 incidents of employee behavior were captured from supervisors. A useful classification scheme was derived from viewing the employee in relation to the business system in which he operated (Table 12). In each of the major categories, the supervisor was the source of the reported incident; "goodness" or "badness" of the incident was often colored by the specific supervisor's interpretation of a sometimes informal system. An attempt was made in pilot incidents in which coping behavior, defined as performance under stress, was tabulated (45 percent of the total were so classified).

TABLE 12

Pilot Classification of Critical Incidents by Worker Requirements  
in Relation to the Business System

	Number	Percent	No. of Coping
Skills and System Requirements			
Cognitive	115	14.7	19
Checking	93	11.9	5
Communication	67	8.6	44
Psychomotor	34	4.4	-
Self and System Demands			
Work Habits	56	7.2	26
Attitudinal, Affective, Within	128	16.4	86
Social Skills or Graces	94	12.1	94
Worker Interprets the System	91	11.7	42
Worker Instructs in, Describes, or Manages the System	46	5.9	24
Worker Modifies, Innovates, Creates, or Changes the System	<u>56</u>	<u>7.2</u>	<u>8</u>
TOTALS	780	100.1	348

"Coping" can take many forms. Examples of critical incidents involving various "coping" situations follows:

Coping with the system--trouble shooting, outside world:

"Lost temper with policyholder and got into an argument. Required that supervisor personally visit customer to regain his goodwill."



"A client was in need of information that wasn't immediately available. She was able to satisfactorily delay him a few days until supervisor was able to compile the needed material."

Coping with the system--noise prevention, outside world.

"Tries to shield him from obnoxious and distasteful buyers. One man thinks from her treatment of him that the employer's attitude was a result of his day rather than the person individually."

"Became impatient and short-tempered with deliveryman who was argumentative regarding which office supplies were to be delivered."

Coping with the system--noise prevention, within system:

"At a rush period in another department, was quite ungracious about helping with the job, even though she receives extra help when her work piles up."

"North Central Report--delayed because teachers did not get their reports in on time. She secured material at the last minute. Completed report and delivered it personally to superintendent."

"She did all the filing in the office for a week because the other girls who also do filing were feeling ill and would rather type than file."

Coping with the system--trouble shooting, within system:

"She 'saved the day' when design calculations were lost in storage (5 year old job). She was able to reconstruct and find them with ease."

"There was a situation where changes had been made in previous travel arrangements for an engineer. All people concerned had not been informed. She was able to straighten the travel situation out without upsetting anyone. This problem had been created by another employee."

The awkwardness of the scheme derived from incidents classifiable in more than one area. Arbitrarily, the scheme was considered hierarchial. For example, that a worker could not find and issue medical documents from a library because he did not possess the technical vocabulary needed was classified as a cognitive skill, the first level of the scheme; that a librarian changed the shelving of pamphlets to make high-frequency called-for materials more readily accessible does exhibit a high level of cognitive skill, but was classified under "Worker modifies, innovates, creates, or changes the system." The scheme used in pilot classification also did not adequately discriminate as between social interaction and task related skill.

## 2. Task Related Incidents

In the principal data cases, 1738 task related incidents were reported. Four functional areas accounted for over three-fourths of the incidents (Table 13): communication, typing, stenography (35.8 percent); accounting

(26.9 percent); other services (14.0 percent); and electronic data processing (8.7 percent).

TABLE 13

Classification of 1738 Task Related Critical Incidents  
Grouped According to Functional Area

FUNCTIONAL AREA	CRITICAL INCIDENTS				
	Number Positive	Number Negative	Ratio (P÷N)	Total (P+N)	Percent of Total
Accounting	197	271	.7	468	26.9
Electronic Data Processing	64	88	.7	152	8.7
Personnel	37	40	.9	77	4.4
Production	12	15	.8	27	1.6
Purchasing	18	22	.8	40	2.3
Shipping and Receiving	11	21	.5	32	1.8
Sales	35	41	.9	76	4.4
Communication, Typing, Stenography	263	359	.7	622	35.8
Other Services	<u>98</u>	<u>146</u>	<u>.7</u>	<u>244</u>	<u>14.0</u>
TOTALS	735	1003	.7	1738	99.9

The ratios of positive to negative critical incidents reported in the data were .7 (positive divided by negative) in each of the above areas. The ratio expected was 1.0 since supervisors were asked to provide one positive and one negative incident.

In the categories of the classification of task related critical incidents checking skills were involved in 668 incidents, or 38.4 percent of the 1738 task related incidents. The categories and their percent of occurrence to the total are shown in Table 14.

TABLE 14

Task Related Critical Incidents  
by Categories

Category	No.	Percent
Checking	668	38.4
Interpreting System	241	13.9
Other Cognitive	200	11.5
Work Habits	170	9.8
Psychomotor Skills	165	9.5
Affective-Within	129	7.4
Communication Skills	75	4.3
Instructing, Creating	54	3.1
Social Skills	36	2.1

### 3. "Fundamentals" of Office Education

Primarily from further analysis of task-related critical incidents according to their ratio of positive to negative incidents, but also from

analysis of tasks and their steps, we believe we have formulated a tentative list of universals, i.e., behaviors that are fundamental to the successful performance of most office tasks.

In discussing task related critical incidents, the positive/negative ratio of incidents was mentioned. Interviewers had asked supervisors for one positive (successful) incident for each negative (less than successful) incident performed by the subject office worker. The ratio of positive to negative incidents expected was one to one (1.0). Because of the reluctance of supervisors to provide negative incidents as reported, the ratio of positive to negative might have been expected to be higher than one positive incident for each negative incident elicited. The ratio for each category of incident actually recorded follows:

TABLE 15

Ratio of Positive to Negative Task-  
Related Critical Incidents  
by Categories

Category	Ratio of P/N
Other Cognitive	1.6
Checking Skills	.3
Communication Skills	.4
Psychomotor Skills	1.6
Work Habits	.9
Affective, Within	.8
Social Skills	1.0
Interpreting the System	1.4
Instructing, Creating, Modifying	12.5
RATIO OF TOTAL (N=1738)	.7

The differences in ratios from what was expected, especially checking (.3); communication (.4); and instructing, creating, and modifying (12.5); caused us to formulate the following two fundamentals:

Accuracy as a desired generalized behavior of office workers is a function of checking for potential error and of correcting error.

Inadequate communication skills, both oral and written, are a frequent source of unsuccessful office performance. Communication skills adequate to instruct others or to modify office actions are sought by supervisors.

The frequency of tasks related to numerical data combined with the ratio of communication critical incidents cause us to further propose:

Organizing and classifying of both numerical and verbal data--all symbolic data--are even more necessary behaviors in our emerging electronic technology than ever before.

While the educational implications of the foregoing fundamentals need further study, we believe it is not too early for every practitioner to increase emphasis of these "fundamentals" in current office education programs.

#### 4. Social Interaction Requirements

In pilot data as well as first printouts of interaction critical incidents, we were dissatisfied with the classification scheme. A new scheme as described in Chapter II resulted. Also, the incidents purportedly included as interaction were frequently task related or vice versa. The critical incidents were each separately recorded on cards, hand sorted according to their interaction components, and reclassified by staff at the University of Georgia (Calhoun, 1970).

In analyzing the distribution of interaction incidents (Table 16) the greatest concentration was found to cover the worker's perception of role expectations within the formal company system in relations with clients.

TABLE 16

Distribution of 829 Usable Social Interaction Incidents

	Information		Reaction to Stress		Judgment/Decision Making		Initiative, Creativity		Social Sensitivity		Total	Percent
	+	-	+	-	+	-	+	-	+	-		
I. Formal System	+ <sup>a</sup>	-	+	-	+	-	+	-	+	-		
A. Internal												
1. Superior	19	6	4	21	11	24	13	4	26	24	152	18
2. Peers	30	5	1	6	4	5	6	2	10	20	89	11
3. Subordinates	8	1	0	4	0	3	1	2	4	5	28	3
B. External												
4. Customers	51	12	9	21	22	14	24	3	42	26	224	27
5. Salesmen	5	0	1	0	0	0	2	2	6	3	19	2
6. Others	6	4	4	3	7	4	8	1	15	3	55	7
II. Informal System												
A. Internal												
7. Superiors	1	1	4	3	1	11	7	1	8	8	45	5
8. Peers	4	0	4	13	7	22	9	0	69	45	173	21
9. Subordinates	1	0	1	0	0	0	1	0	1	3	7	1
B. External												
10. Customers	0	0	2	2	2	0	1	0	7	0	14	2
11. Salesmen	0	0	0	0	0	1	0	0	0	1	2	1
12. Others	0	0	3	0	0	7	3	0	7	1	21	2
TOTALS	125	29	33	73	54	91	75	15	195	139	829	
PERCENT	15	3	4	9	6	11	9	2	24	17		100

<sup>a</sup>+designates effective behaviors; - designates ineffective behaviors.

This category contained 224 incidents in number or 27 percent of the total. The second greatest concentration of total incidents was found to cover the worker's perception of relationships apart from role expectations in relations with peers. This category contained 173 in number or 21 percent of



of the incidents. Relations with superiors ranked third in total number of incidents with 152 in number or 18 percent of the total. Within the formal system, most of the social interaction incidents occurred with customers and superiors; within the informal system, most of the incidents occurred with peers.

A majority of office social interaction incidents reported involves a worker's use of social sensitivity in dealing with situations involving customers or clients, their superiors, and their peers.

Examples of the specific incidents to follow illustrate kinds of educational interaction goals identified in the University of Georgia study.

#### Category 1--Relation to Superiors

a. Given a telephone call from a top management official to a supervisor who does not wish to be disturbed, the employee exhibits good judgment (1) identifies the name of the official as of major importance and (2) transfers the call immediately to the supervisor.

b. Given criticism concerning the performance of his work, the employee remains calm and controls emotions by (1) discussing the problem with the supervisor, (2) listening carefully and patiently to comments of supervisor, (3) refraining from taking out his anger on other employees, and (4) correcting any errors that have been made.

#### Category 2--Relation to Peers

a. Given a situation involving work with her peers in person or over the telephone, the worker exhibits patience, understanding, and tact by (1) using a pleasant voice, (2) explaining step-by-step procedures, (3) working through a few problem-type situations, and (4) correcting errors by further explanation or handling the job herself.

b. Given the responsibility for training another employee, the worker demonstrates ability and willingness to train the worker by (1) communicating knowledge and understanding of the job, (2) exhibiting a positive and enthusiastic attitude, (3) maintaining her own workload while training worker, (4) not imposing own standards of performance on other worker, and (5) being patient with and interested in other people.

#### Category 3--Relation to Subordinates

a. Given an employee under pressure to get his work out, he keeps office operating smoothly by (1) refraining from giving orders without stating reasons for them and (2) tactfully helping others who are having difficulty.

#### Category 4--Relation to Customers or Clients

a. Given a client seeking specific information which the worker is not able to deliver immediately, the worker makes a decision based on knowledge of the job and on the client's particular situation. (1) If the worker needs the information immediately, the worker must give him what he thinks

his supervisor would approve and accepts the responsibility as well as the possibility for having made the wrong decision. If the worker does not require the information immediately, the worker tells him when he can have the information for him.

b. Given a customer who expresses discontent with the company's statement of her account (she believes the company has an incorrect balance), the worker patiently, courteously, and tactfully (1) determines that the customer does not understand the company's procedure in processing statements and (2) explains the procedure in such a way that the customer understands and accepts statement amounts.

c. Given a patient who comes in without an appointment, crying and hysterical, demanding to see a particular doctor who is unavailable, the worker patiently, sympathetically, and calmly talks with the customer (1) assuring the customer that she will receive the attention she needs and calming her emotional outbursts and (2) convincing the customer that the doctor she wants to see is not available and suggesting that she see someone else who might help her or that she see the person she wants to see now at a later time.

#### Category 5--Relation to Sales or Service Personnel

a. Given a request to telephone suppliers to order supplies for the company, the worker demonstrates initiative by (1) obtaining firm delivery date from the supplier and (2) securing all vital information concerning discounts and quantity purchases that will allow the company to save money.

b. Given a telephone inquiry from a vendor who has not received payments from the company (because of a backlog of work), the worker pacifies the vendor by (1) finding the cause of the late payment, (2) offering a truthful explanation to the vendor, and (3) assuring vendor that payment will be made immediately.

#### Category 6--Relation to Others

a. Given a call requesting confidential information on company employees, the worker resists pressure from the caller by following company policy in divulging information.

b. Given job applicants who are nervous about being processed and tested, the worker puts them at ease by (1) giving them helpful instructions about completing the forms, (2) pointing out problem areas on application blanks or test forms, and (3) exhibiting a friendly and personal interest in each applicant.

#### Category 7--Relation to Superiors

a. Given a superior who loses his composure in reprimanding or demanding work from the employee, the employee remains calm by (1) displaying no visible reaction to rudeness and (2) listening patiently to what is being said, thereby pacifying the superior.

b. Given procedures for obtaining information to be given to a superior (which procedures do not work smoothly), the employee is creative by suggesting new methods that may be tried to obtain the information.

Category 8--Relation to Peers

a. Given a typed report returned to the typist by reviewer who had proofed it, indicating errors to be corrected, the typist demonstrates the ability to accept constructive criticism by (1) recognizing and accepting fact that the reviewer is responsible for the report, including its accuracy, (2) listening attentively to explanation of errors by reviewer, without making excuses for errors, and (3) making necessary corrections on the report.

b. Given job tasks involving the handling of confidential information regarding employees and company business, the employee exhibits dependability by (1) tactfully refusing to discuss confidential information, both at work and off the job, (2) keeping confidential materials filed in the proper place, and (3) discussing confidential information only with persons authorized by the supervisor.

Category 9--Relation to Subordinates

a. Given a new employee who needs additional instruction and demonstration, the worker uses his knowledge by (1) explaining content of the job to the new worker and (2) describing the relationship of the employee's job to other jobs in the department.

b. Given a new employee, the worker demonstrates courtesy by introducing her to her co-workers and inviting new worker to join her for coffee.

Category 10--Relation to Customers or Clients

a. Given an emergency call, during supervisor's absence, requiring immediate action, the worker remains calm and obtains all necessary information to give caller by consulting sources available.

b. Given a customer who becomes upset and loses control of his emotions, the worker calms the customer by talking quietly with her and offering help in finding a solution to the problem.

Category 11--Relation to Sales or Service Personnel

a. Given a misunderstanding which occurs during communication with repairmen or salesmen, the worker controls the situation by refraining from showing any irritation or by resorting to namecalling.

Category 12--Relation to Others

a. Given an outsider who creates a disturbance on company premises, the worker handles the situation by calling necessary personnel to handle the incident.



b. Given an emergency telephone call for an employee of the company, the worker demonstrates initiative by obtaining all pertinent information from caller and locating employee as quickly as possible.

c. Given visitors touring the company, the worker builds a good image for the firm by courteously answering questions and offering to help them in any way she can.

#### D. SUPERVISOR AND EMPLOYEE IDENTIFICATION AND WEIGHTINGS OF BASIC TASKS

##### 1. Functional Areas of Tasks Identified

Supervisors identified 3646 basic tasks in 1009 interview cases analyzed from the principal data collection period (page 2 of interview protocol, Appendix B). Employees identified a slightly larger number of 3763 in a parallel listing (page 5 of interview protocol). It will be remembered that the identification of basic tasks was not requested in the pilot data collection. According to functional areas, basic tasks as classified by function are displayed in Table 17.

TABLE 17

Basic Tasks According to Functional Areas as Identified by Supervisors and Employees

	SUPERVISOR		EMPLOYEE	
	No.	Percent	No.	Percent
Accounting, Computing	832	22.8	870	23.1
Electronic Data Processing	222	6.1	242	6.4
Personnel	174	4.8	176	4.7
Production	35	1.0	33	.9
Purchasing	94	2.6	93	2.5
Shipping and Receiving	77	2.1	90	2.4
Sales and Client Related	103	2.8	113	3.
Stenographic and Other Communications	1349	37.0	1368	36.3
Other Services (mail, files, etc.)	<u>760</u>	<u>20.8</u>	<u>778</u>	<u>20.7</u>
TOTALS	3646	100.0	3763	100.0

As one would expect, the basic tasks as identified by supervisors and employees are similar. We suspect some of the homogeneity to have been aided by the interviewers who, after talking with supervisors, would attempt to reconcile with the employee the differences reported. At least the exact correspondence of both the tasks listed and their weights of importance as received from some interviewers cause us to think that interviewer suggestions may have influenced the results.

We mention again that "accounting and computing" as a functional area might better have been called "numerical data handling" to avoid misunderstanding that the tasks so classified do, to any great extent, represent educational tasks currently learned in bookkeeping or accounting courses. Principles of accounting and accounting as a system of analysis to be learned may need to be rationalized on other than their necessity in performing tasks so labeled.



## 2. Weightings of Importance of Basic Tasks

Both supervisors and employers weighed each basic task identified according to these elements of importance as described in the Instructions for Collecting Data and Writing Performance Statements (Appendix E).

### Consequences

Question: "How would you evaluate the effect of an employee's error or the employee's failure to perform this task or a portion of it related to company financial loss or effects on people inside or outside your company? Would you say the error would bear:

Answer

Choices: Great consequences 1  
 Moderate consequences 2  
 Little if any consequences 3

Now ask additional basic tasks and A for each task as it is mentioned. When all tasks and all A's are listed, proceed with B, C, D, and E as follows:

### Changing

Question: "Of all the tasks listed, do you see any of these tasks changing in the near future?" (Share what you have written on basic tasks with the supervisor to permit him to answer more easily on B-E)

Answer

Choices: Yes 1 No 2

If the supervisor says a task is changing, ask "How changing?" and fill in answer at the bottom of page 2. DO NOT PROBE FOR EXISTING TASKS THAT SUPERVISOR SAYS ARE CHANGING. No data for performance statements (page 6) will be written up for old tasks that the supervisor says will shortly cease to exist.

### Frequency

Question: "Of all tasks listed, how would you evaluate each as to frequency of performance."

Answer

Choices: Is this among the tasks most frequently performed? 1  
 Is this among tasks performed with medium frequency? 2  
 Is this infrequently performed--once in a long while? 3

Fill in C for all basic task information given. D is asked for all tasks listed after C is completed.

### Time Spent

Question: "What percent of this employee's total time does she spend on (state tasks in order given)?"

Answer

Choices: 1%-100%

A quick check by the interviewer after D is completed for all tasks listed should indicate a percent total at or near 100%. A total more than 10 percentage points off 100 results in the interviewer asking the interviewee which item(s) he would like to adjust to come closer to an actual 100.

#### Rank Tasks

Question: "Would you now rank the tasks you have mentioned in order of difficulty?" (It may be necessary to repeat tasks.)

Answer

Choices: Most difficult 1 (This is done  
Next most difficult 2 for 6 or how-  
Next most difficult 3 ever many tasks  
Next most difficult 4 listed.)  
Next most difficult 5  
Next most difficult 6

After completing E, the interviewer now proceeds to page 3 to elicit specific incidents from the supervisor.

Again, we call attention to the homogeneity of the weightings as between supervisors and employees. Tables 18 and 19 are comparisons of responses of consequences of task performance and frequency of performance as between these two groups of respondents. While slight differences in functional areas are observed in the direction that one would expect, the nature of the evidence (opinions) causes us not to place too much reliance on them. With the exception of changing tasks as identified in the next section, results of further weightings obtained, i.e., percent of total time spent, and rank of difficulty are not reported.

TABLE 18

Comparison of Supervisor and Employee Responses  
to Consequences of Basic Task Performance

FUNCTION	SUPERVISOR				EMPLOYEE			
	1 Great	2 Avg.	3 Little	M	1 Great	2 Avg.	3 Little	M
Accounting, Computing	392	294	145	1.70	419	288	151	1.69
Electronic Data Processing	106	61	55	1.77	100	73	69	1.87
Personnel	86	48	37	1.71	91	50	35	1.68
Production	19	12	4	1.57	15	12	6	1.73
Purchasing	41	31	22	1.80	41	31	19	1.76
Inventory, Shipping, and Receiving	43	11	21	1.71	42	26	22	1.78
Sales and Client Related	51	36	16	1.66	57	40	15	1.62
Stenography and Other Communication	557	468	324	1.83	543	468	357	1.86
Other Services (mail, files)	279	263	216	1.92	271	249	258	1.98
TOTALS	1574	1224	840	1.80	1579	1237	932	1.83
Nonrespondents - Supervisors = 8		Employees = 15						

TABLE 19

Comparisons of Supervisor and Employee Responses  
to Frequency of Basic Task Performance

FUNCTION	SUPERVISOR				EMPLOYEE			
	1 High	2 Medium	3 Low	M	1 High	2 Medium	3 Low	M
Accounting, Computing	560	173	99	1.45	553	186	120	1.50
Electronic Data Processing	149	45	28	1.45	151	57	34	1.52
Personnel	103	39	29	1.57	108	45	23	1.57
Production	26	5	4	1.37	24	6	3	1.36
Purchasing	41	31	22	1.80	43	25	25	1.81
Inventory, Shipping, and Receiving	38	24	14	1.68	44	34	12	1.65
Sales and Client Related	69	25	8	1.40	72	31	10	1.45
Stenography and Other Communication	832	342	174	1.51	817	366	185	1.54
Other Services (mail, files)	453	179	126	1.57	458	209	111	1.55
TOTALS	2271	863	504	1.51	2270	959	523	1.55
Nonrespondents - Supervisors = 8 Employees = 11								

### 3. Changing Tasks Identified

Of 3646 basic tasks identified by supervisors, 279 in number or 7.7 percent were indicated as changing tasks. Of 3763 basic tasks identified by employees, 238 in number, or 6.3 percent, were so indicated (Table 20). The fact that employees were able to identify fewer changes than their supervisors is not surprising. Employees are once further removed from the point of decision making where changes are planned. If the foregoing reasoning is sound, we can also question supervisors' complete knowledge of potential changes to occur since they, too, are frequently removed from the point of decision making. In other words, we propose that the small percents of changing tasks identified do not represent adequately the weight of change that will affect office performances in the foreseeable future. Other

TABLE 20

Supervisor and Employee Indicated Changing  
Tasks by Functional Areas

	SUPERVISOR		EMPLOYEE	
	No.	Percent	No.	Percent
Accounting, Computing	76	27.2	79	33.3
Electronic Data Processing	19	6.8	13	5.5
Personnel	20	7.2	13	5.5
Production	3	1.1	1	.4
Purchasing	8	2.9	10	4.2
Shipping and Receiving	5	1.8	1	.4
Sales and Client Related	9	3.2	9	3.8
Stenographic and Other Communication	93	33.3	77	32.4
Other Services (mail, files)	46	16.5	35	14.7
TOTALS	279	100.0	238	100.2

opinion on the "emergent" in changing office tasks are those outputs to be expected from Huffman's "Emergent Office Study," currently in preparation. A part of NOBELS, as described in Chapter I, prepublication copy of two tables from the forthcoming Huffman report are included as Appendix A.

Table 21 classifies reasons given by 179 supervisors and employees for changing tasks. Approximately three fourths of the reasons are classified under "mechanization" with 80 percent of these further classified as "electronic data processing." The classification of reasons substantially agrees with the University of Georgia's concurrent hardware study (Calhoun, 1970).

TABLE 21

Classification of 179 Causes Given for  
Changing Tasks of Employees

CLASSIFICATION	TOTAL	
	No. of Responses	Percent
Mechanization:		
Electronic Data Processing	103	57
Other Equipment	26	15
Shift of Task Responsibility (to/from Others)	22	12
Change in Need for Task	14	8
Change in Organizational Structure	14	8
TOTALS	179	100

#### E. OBJECT OF TASK PERFORMANCE

The 4548 basic tasks collected from 1232 office workers, as described, were coded not only according to a function or to "what" the task related but also according to the object or "why" of the performance. As discussed in Chapter II, the "why" classification had limitations of reliability that caused us not to place too great a dependence on the coded results. Still, with the limitations cited, the tabulations do give some notions about the object or "why" of basic performance (Table 22).

#### F. ACTION VERBS AND SYNONYMS DESCRIBING STEPS OF TASK PERFORMANCE

Our purpose here is to describe the 108-verbs and synonyms used in classifying steps of basic task performances as described by 1232 workers.

##### 1. Codified Action Verbs and the Taxonomy

The Taxonomy of Office Activities as an output of NOBELS was mentioned earlier (Huffman, Brady, et al., 1968). We attempted to classify steps of task performance by the taxonomy but found the scheme not usable for the following reasons:



TABLE 22

## Object or Why of 4548 Basic Tasks

OBJECT OR WHY	Number of Tasks	Percent
Source Documents	1344	29.5
Negotiables and Investments	332	7.3
Correspondence	787	17.3
Electronic Data Processing Outputs	247	5.5
Files	226	5.0
Reports, Charts, and Other Tabulated Material	716	15.7
Inventory	139	3.1
Served People or Generated Ideas	757	16.6
TOTALS	4548	100.0

a. Office activities of 16 to 24 year old workers, NOBELS' target group interviewed, could not be classified in the three taxonomy domains of operating, interacting, and managing. Rather, with the exception of those actions related to social roles, the task verbs cluster around the input, processing, output classification of the single domain of operating.

b. Some verbs were too narrowly defined to describe the range of technical meaning of the words as actually used in offices. For example, the verb "average" was defined "to find the arithmetic mean," an accurate definition of one type of average but a definition which excludes all other meanings for describing centrality of business phenomena. Interestingly enough, the office tasks we studied did not require the use of the verb "average" to describe office actions.

c. Numerous taxonomy verbs, especially in the "interacting domain," were abstractions that were not defined in observable behavior. Thus, "empathize" as a verb is at least once removed in generality from actions that one would accept as evidence of "empathic behavior" in an office worker. While some behaviors collected about office workers in their social roles might be described as "empathic," to do so would have required a value judgment placed on the behavior actually observed.

d. The view of the taxonomy authors that a checklist of verbs could be used in observing task performance in an office did not match the realities of time and resources available for data collection.

e. Strict adherence to taxonomy verbs frequently resulted in awkwardness of expression of office tasks. For example, "types," a common verb used in office communication, had to be expressed as "copies with a typewriter," a somewhat stilted expression. The stilted expression resulted from the attempt to codify under one heading all copying: whether by pencil, duplicator, or typewriter.

The first taxonomy as described, however, was used as an important tool by all data collectors of NOBELS to provide specific verbs that described

office actions observed. Thus, rather than using bland verbs such as "makes," "fixes," or "puts," data collectors selected specific verbs as "types," "keypunches," "files," or "checks."

## 2. Listings of NOBELS Action Verbs and Synonyms

Based on 244 interview cases from NOBELS pilot data collection, a tentative listing of 108 verbs describing office actions as reported by employees and interviewers was extracted. The need for analysis of verbs was considered to be one of grouping by synonyms rather than developing a taxonomic hierarchy of generic terms. The NOBELS action verbs, 108 in number, and synonyms, 118 in number, proved adequate in coding for computer tabulation of all the 32,447 steps contained in 4548 sheets taken from 1232 interviews.

An alphabetic listing of the 108 verbs used to code steps of basic tasks together with the current recommended listing of 57 verbs and their synonyms recommended as a result of our experience are included as Appendix E. A more complete discussion of the NOBELS Action Verbs and Synonyms in relation to the Taxonomy and in terms of the educational implications is available elsewhere (Lanham and Weber, 1970).

## 3. High-Frequency Verbs of Action Steps

In Table 23, the twenty most frequently used verbs tabulated from steps of basic tasks are displayed. The high frequency of input verbs such as "receives" and "obtains" as well as output verbs such as "delivers" probably results from the few verbs in these two categories compared with the processing category of task performance.

Tables 24, 25, and 26 display the ten most frequently used verbs in the nine functional areas with Table 24 listing ranks of three functions according to highest frequency; i.e., communication defined as stenography, typewriting, and oral communication; accounting which includes primarily numerical related tasks; and other services which include filing, mailing, and duplicating. Table 25 follows, according to descending order of frequency, with data processing, personnel, and client related services which include sales. Table 26 lists the three lowest frequency of functional tasks by rank in production, receiving and shipping, and purchasing.

That a few verbs, such as "punch" in electronic data processing are not among the first twenty most frequently used verbs listed in Table 23 is to be expected. Electronic data processing is still emerging as a functional office area with its own peculiar jargon. That the ten high ranked verbs of each functional area account for so high a ratio of all verbs codified in that area is consistent with the finding in Table 23.

## G. TALENT INVENTORY AS A PART OF DIFFUSION

An integral part of NOBELS in all phases has been the dissemination process. Dissemination to the point of acceptance and adoption in classrooms is based first on identification of various levels of talent in office and business education and systematically recording talent information in data banks. During the feasibility study (Lanham, 1968) the beginnings of

a data bank of teacher educators, state supervisors, and city supervisors were collected, coded, and processed. A talent inventory instrument was also field tested, using the above listed decision makers as the test group.

TABLE 23

Twenty Most Frequently Used Verbs Describing  
Steps of Basic Task Performance

Rank	Verbs	Total Number	CUMULATIVE
			Percent of 32,447
1	receive	2933	9.0
2	typewrite	1925	5.9
3	deliver	1923	5.9
4	write	1677	5.2
5	file	1640	5.1
6	place	1504	4.7
7	check	1389	4.3
8	obtain	1345	4.1
9	send	996	3.1
10	record	958	2.9
11	sort	945	2.9
12	insert	788	2.4
13	determine	632	1.9
14	pull	578	1.8
15	inform	547	1.7
16	attach	525	1.6
17	call	520	1.6
18	compute	503	1.6
19	answer	501	1.6
20	locate	485	1.6
TOTALS		22,314	68.8*

\*Discrepancy due to rounding

In the current phase of NOBELS, additional refining of the talent inventory instrument and processing procedures was proposed. Additionally, utilization of the instruments to develop a national data bank of talent and testing the national plan in one state defined the scope of work (Cook *et al.*, 1970).

#### H. SUMMARY

In this chapter, the results of interview data collection from 1232 office workers and their supervisors in four areas of the country have been disclosed. The bias of the cases toward the urban and large company beyond that projected in the proposal and the consequent adequacy of the sample have been discussed. Results of analysis of critical incidents collected in the pilot study and the task related and interaction incidents of the principal data collection have been reported. Samples of social interaction performance goals were given. Samples of task-related incidents are sprinkled in the next chapter among the performance goals to

TABLE 24

Ten Most Frequently Used Verbs Describing Steps of Basic Task Performance in Communication Services, Accounting, and Other Services<sup>1</sup>

Communication Services			Accounting		Other Services			
Rank		No.	Rank	No.	Rank	No.		
1	typewrite	1139	1	receive	769	1	receive	473
2	receive	1051	2	write	598	2	sort	433
3	deliver	602	3	check	481	3	file	419
4	obtain	589	4	deliver	476	4	deliver	364
5	write	512	5	record	458	5	place	360
6	file	489	6	file	408	6	obtain	225
7	place	464	7	place	379	7	check	186
8	answer	401	8	typewrite	354	8	insert	179
9	check	400	9	send	292	9	attach	150
10	proofread	364	10	obtain	283	10	open	147
TOTALS		6,011			4,498			2,936

<sup>1</sup>Communication includes stenography, typewriting, and oral communication; Other Services include filing, mailing, and duplicating.

TABLE 25

Ten Most Frequently Used Verbs Describing Steps of Basic Task Performance in Data Processing, Personnel, and Client Related Services

Data Processing			Personnel		Client Related Services			
Rank		No.	Rank	No.	Rank	No.		
1	receive	176	1	typewrite	139	1	receive	115
2	punch	151	2	receive	136	2	write	96
3	deliver	136	3	deliver	113	3	deliver	76
4	place	112	4	file	97	4	typewrite	56
5	obtain	87	5	write	84	5	file	52
6	check	85	6	check	73	6	place	50
7	remove	71	7	send	60	7	record	49
8	write	70	8	obtain	59	8	check	41
9	record	68	9	record	55	9	send	35
10	insert	59	10	inform	53	10	call	33
TOTALS		1,015			869			603

which they relate. Analyses of basic tasks and their weightings of importance as elicited from supervisors and employees were presented. In relation to the discussion of changing tasks identified, the correlative study of the emergent office was cited. The tabulation of the "why" or object of 4548 codified tasks were displayed. The action verbs and synonyms growing out of the taxonomy of office activities were presented. The chapter closes with a description of the scope of the talent inventory.



TABLE 26

Ten Most Frequently Used Verbs Describing Steps of Basic  
Task Performance in Production, Purchasing,  
and Receiving and Shipping

Production		Receiving and Shipping		Purchasing				
Rank	No.	Rank	No.	Rank	No.			
1	receive	38	1	receive	77	1	receive	98
2	write	33	2	check	64	2	write	71
3	deliver	21	3	deliver	61	3	check	64
4	file	17	4	file	39	4	deliver	54
5	check	15	5	typewrite	38	5	send	51
6	typewrite	14	6	call	35	6	file	49
7	place	11	7	write	29	7	place	48
8	obtain	8	8	obtain	27	8	obtain	38
9	send	8	9	place	26	9	typewrite	35
10	duplicate	<u>7</u>	10	send	<u>21</u>	10	record	<u>31</u>
TOTALS		172			417			539

Throughout the chapter, interpretations concerning the meaning of the data presented as they relate to New Business and Office Education Learnings System have been posed. Frequently in the form of clues or hunches, these interpretations must be considered further in Chapter IV in presenting the performance goals of office occupations as well as in recommendations of the final chapter.

## Chapter IV

### PERFORMANCE GOALS FOR OFFICE EDUCATION

#### A. SOURCE OF PERFORMANCE GOALS

The purpose of this chapter is to present 375 performance goals developed from NOBELS data to represent office occupations, the primary output of the current project. The performance goals were generalized and thus elicited from 4564 classified tasks, 16 more than were coded for computer printouts. The discrepancy resulted from (1) a few task sheets that contained more than one analyzed task on each sheet and had been coded as one task and (2) some tasks analyzed as two or three separate tasks by interviewers had been judged and coded as a single task. In the hand sorting, the tasks were treated separately. This resorting yielded 0.35 percent discrepancy. Each of the 4564 tasks had been analyzed according to 32,447 verbs as reported in Chapter III.

The primary criterion of data reduction was one of fidelity to the tasks performed as reported by interviewers. The interview process makes necessary the assumption that interviewers captured steps of task performance as described. The NOBELS process has the advantage over some other interview techniques, however, of eliciting steps of performance from the performer rather than his supervisor or some other functionary remote from the performance.

#### B. USES OF THE SET OF OFFICE PERFORMANCE GOALS

The set of office performance goals presented provides a base for analysis and modification of current office education preparation. Here are some of the more obvious and immediate uses that are suggested:

1. Textbook authors and publishers of materials for office education preparation will want to re-examine current and projected materials to determine their relevancy of coverage in whatever media available or contemplated.

2. State and local supervisors of business and office education or other curriculum framers now possess a reservoir of current office performances to help evaluate the adequacy of present programs or to organize improved packages of learnings pointed toward competency of performance in office work.

3. Business and office teacher educators, some for the first time, now have a pool of authentic office behaviors to teach the specificity of the behaviorist's goal statements and the discipline of system control of learning in pre- and in-service programs of teachers.

4. Curriculum directors of certain lighthouse developments, such as ES '70, can "plug in" the current goals or combine them in various ways with others as promising recombinations or reorganizations of school learnings are visualized.

5. The classroom teacher? His first step is one of embracing the behaviorist's view that expected learning can be specified in observable behaviors amenable to assessment. His second step is to insist from all those suppliers of classroom learning materials and curriculum framers that they contribute curriculum and materials that do, in fact, lead to performance of learners equal to those expected in offices. His third step is one of innovating, possibly developing and testing from observed gaps in current instruction and what is suggested by the current list of performances one lesson or one unit of instruction per year in which the behavioral output can be measured in observed actions of the learner.

6. The learners? Students have too often been last to be exposed to the specific expectations of employers for office performance. As an instructional (to some) innovation, we propose that students, those contemplating office employment or those committed to prepare for office work, have access to this set of office expectations. We propose that students be encouraged to assess the relevancy of their learnings by assessing, informally or formally, the various media of classroom application with the reality and currency of the office performance goals reported here.

#### C. FORM AND FORMAT USED TO PRESENT PERFORMANCE GOALS

Many judgmental decisions were made during the process of sorting and resorting task sheets to develop performance goals. One early decision was made that clarity was improved by visualizing similar task steps through flowcharting. In the presentation to follow, a flowchart of a performance goal is included when the process of steps involves more than a straight-line or sequential flow without alternative steps or decision points. Varying sizes of the following symbols are used to accommodate layout:



Decision



Start, End,  
Continuation



Acquisition,  
Disposition



Process

In some flowcharted performance goals, it was found unnecessary to repeat the graphic presentation by including printed steps of flow. Wherever clarity was judged to be improved, however, both the flowchart and the listing of steps represented in the performance are given.

The statement of each performance goal, representing a generalized but similar performance of a worker or workers begins with a "Given" phrase followed by a statement of what the worker does. For example,

**GIVEN EXPENSE SHEETS AND/OR TOTAL SALES FIGURES, THE WORKER COMPUTES AND ALLOCATES UNIT COSTS TO JOBS AND SALES/PRODUCTION ESTIMATES. (33 task sheets)**

The "Given" phrase followed by the task is the one feature contained in all performance goals listed. Note that in format all performance goal statements are written in upper case and followed by the number of task sheets represented. Some summaries of task sheets are more detailed than others usually because they represent a larger number of task sheets than others. The steps of performance in these detailed summaries are arranged in three major divisions (1) acquisition, i.e., the source or sources of or materials on which the task is to be performed; (2) process, i.e., the sequence of actions taken by the worker to perform the task; and (3) disposition, i.e., what the worker does with the product or output generated.

Detailed summary performance goals also include:

(1) A listing of "hardware," i.e., materials of wood, metal, or harder consistency like machines used.

(2) A listing of software, i.e., the programs, policy manuals, catalogues, or references used.

(3) Educational cues, i.e., the suggestions of the goal writers (all classroom practitioners) of implied instructional key elements for teaching.

(4) Supplementary steps, i.e., alternatives of performance or steps performed by a few workers.

(5) Reported criteria, i.e., requirements of successful performance as quoted directly from the task sheets.

Other goals usually based on less frequent occurrence are presented with less detail than the foregoing. In these less detailed presentations, steps were given beginning with an underlined action verb and they are not subsumed under major categories of acquisition, process, and disposition.

Sixteen major verbs, each cast in upper case, serve to classify all action verbs under the divisions of acquisition, process, or disposition. The action verbs of steps subsumed under these sixteen major verbs are displayed in Chart 5. Upper and lower case verbs without parentheses are used to indicate one of the 108 verbs used to codify steps in NOBELS task sheets. Lower case verbs within parentheses indicate synonyms of a NOBELS verb or a specialized verb used.

Examples of task related critical incidents are sprinkled throughout the presentation of goals. These instances elicited from supervisors, it will be remembered, characterize successful or less than successful worker task performance. As space permitted, the examples are cited after most major areas of goals or with statements of specific performance goals.

As an aid to reading the performance goals, you should be aware of certain conventions in abbreviations and special words used in flowcharts as follows: PO (purchase order), A/R (accounts receivable), A/P (accounts payable), B/L (bill of lading)--used in other performance goal features: TV (television), ID (identification), wpm (words per minute), VA (Veterans



## Chart 5

Major Verb Categories with Their  
Subsumed Verbs

MAJOR VERB CATEGORY	SUBSUMED VERBS
CALL	Wire (page, phone, telephone)
CHECK	Adjust, Correct, Inquire, Oversee, Proofread, Scan, Test, Verify (confirm, examine, inspect, update)
COMPILE	Arrange, Attach, Batch, Bind, Collate, Collect, Cut, List, Obtain, Select (choose, gather, get, make)
COMPOSE	Convert, Draw, Sign, Write (make up)
COMPUTE	Add, Count, Divide, Extend, Multiply, Quote, Reconcile, Run Tape, Subtract, Total (balance, calculate, figure)
DELIVER	Deposit, Destroy, Disburse, Distribute, Issue, Place, Refer, Request, Route, Send, Transfer (give to, hand to, present, put, submit, transmit)
DETERMINE	Assign, Devise, Evaluate (decide, design, formulate)
DUPLICATE	Photograph (copy, mimeograph, photocopy, Xerox)
FILE	Destroy, Hold, Locate, Maintain, Pull, Refer, Remove, Search, Sort (extract, find, go through, look up, take from, trace)
INFORM	Answer, Assist, Direct, Discuss, Explain, Greet, Inquire, Instruct, Interview, Note, Post (on bulletin board), Repeat, Request (advise, confer, consult, describe, give direction, notify, remind, teach, tell, welcome)
MAIL	Address, Insert, Label, Open, Route, Seal, Send, Stamp, Wrap (forward, stuff, transmit)
OPERATE	(EDP) Code, Feed, Perform, Punch, Run Through, Sort, Wire (activate, program)
RECEIVE	Answer (phone), Greet, Hold, Obtain, Request, Take Dictation
RECORD	Add, Assign, Code, Complete, Label, List, Note, Post (to ledger), Sign, Stamp, Write (enter, fill in, journalize, log, mark)
SORT	Compare (index, match, separate)
TYPE	Teletype, Transcribe

Administration), FHA (Federal Housing Administration), COD (cash on delivery), IRS (Internal Revenue Service), MTST (Magnetic Tape Selectric Typewriter), TWX (Exchange Teletypewriter), cash receipts (cash and/or checks). Also, the name of department in unquoted materials is capitalized and the word department is not used; i.e., Payroll, Accounting, Key punching.

As an aid to meaning, certain punctuation has been used in performance goals for visual representation as follows:

Diagonal (/) - indicates different task sheets as sources or the same task sheet as alternatives

Comma (,) - means "and"

Semicolon (;) - indicates material extracted from different task sheets

#### D. NUMERICAL CLASSIFICATION SCHEME

It will be remembered that 4564 task sheets and their resulting 375 performance goals for two standard industrial classifications were separated and are here presented in the first section of goals as follows:

<u>Numerical Designation</u>	<u>SIC</u>	<u>No. of Task Sheets</u>	<u>No. of Goals</u>
I	Finance, Insurance, Real Estate-- Banking	286	63
II	Service--Medical	186	24

The remainder of 288 performance goals; classified by function, are presented in the second section of goals as follows:

<u>Numerical Designation</u>	<u>Function</u>	<u>No. of Task Sheets</u>	<u>No. of Goals</u>
1	Accounting	790	52
2	Electronic Data Processing	372	30
3	Personnel	374	24
4	Production	40	3
5	Purchasing	84	3
6	Shipping, Receiving, and Inventory	133	26
7	Sales	232	32
8	Client Related Services	330	47
9	Communication	962	19
10	Services	727	28
11	Miscellaneous (NEC)	48	24

E. SIC PERFORMANCE GOALS

I BANKING

1. GIVEN WRITTEN/ORAL REQUESTS TO OPEN NEW ACCOUNTS, TRANSFER ACCOUNTS, OR SET UP TRUST ACCOUNTS, THE WORKER OPENS NEW ACCOUNTS, HANDLES TRANSFERS OF ACCOUNTS, AND SETS UP TRUST ACCOUNTS FOR CUSTOMERS.  
(8 task sheets)

## ACQUISITION

## RECEIVES

request to open checking, savings, business, or personal account/request to set up trust account/request, authorization for transfer of account

## PROCESS

## Explains

kinds of checking accounts, bank services/service charges

## CHECKS

trust account information/transfer card for completeness

## Pulls, Stamps

old, new signature cards

## TYPES

signature card, new account deposit slip/customer information on savings, new account report/ID card/ledger card, savings passbook/new record changes for Data Processing

## Obtains

customer signature, personal data/supervisor's approval of new transfer card

## Assigns

new account number

## Writes

check order for personalized checks/ID from old card to new/transfer information on Data Processing change sheet

## RECEIVES

deposit from customer

## COMPILES

deposit book

## Verifies

account number with main branch of bank

## COMPUTES

savings account totals

## RECORDS

account number on forms/totals on new accounts in ledger

## DISPOSITION

## FILES

old signature card in closed file/new signature card in open file

## MAILS

check order

## DELIVERS

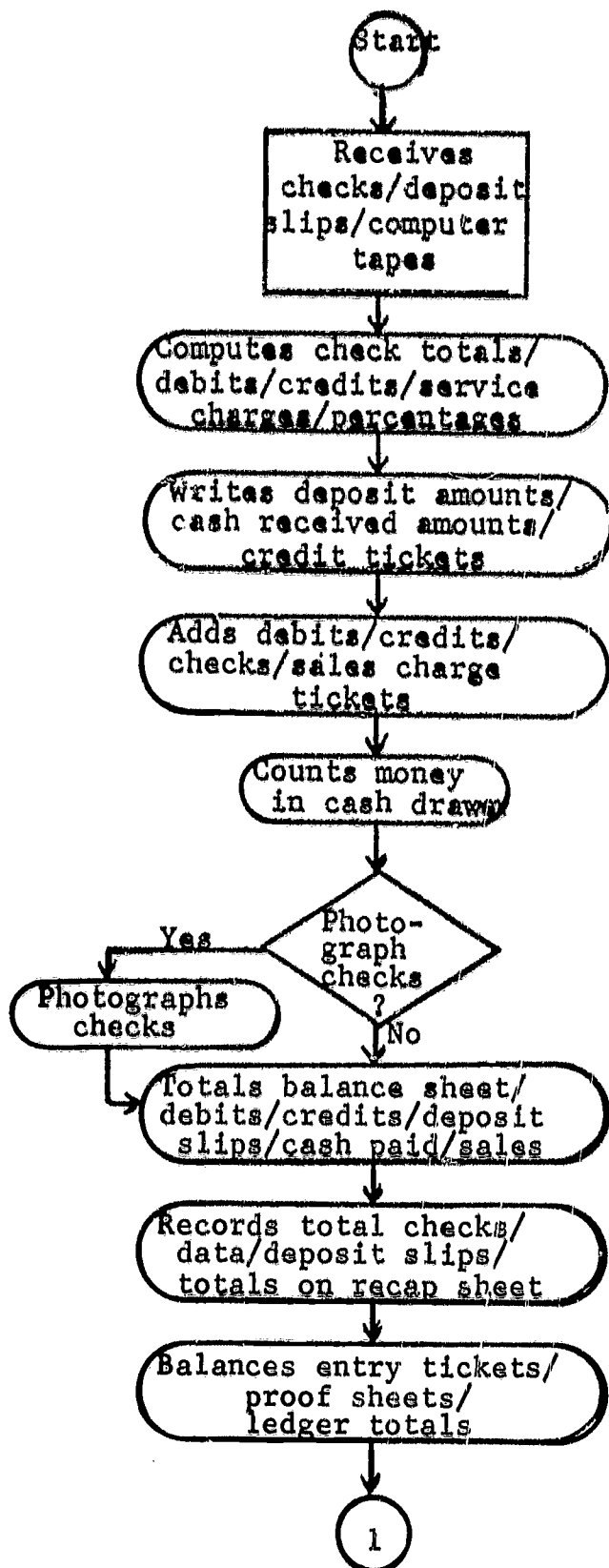
signature card, deposit slip to Bookkeeping/ID card, receipt, temporary checks to customer/source documents to Data Processing/deposit book to customer/trust account form to Key punching/deposit slip, ledger card, passbook to Posting/money to teller/signature cards to Savings/computer change sheet to Key punching

**SUPPLEMENTARY STEP:** Codes source documents for Data Processing; Codes trust account information



<u>HARDWARE</u>	<u>SOFTWARE</u>	<u>EDUCATIONAL CUES</u>	<u>REPORTED CRITERIA:</u>
Typewriter	Check order	Typing	"Accuracy in processing of information; Familiar with types of accounts; High level experience needed; Accuracy"
Files	Signature cards	Filing	
Rubber stamp	Deposit slip	Accuracy	
	Cash receipts	Communication skills	

2. GIVEN SOURCE DOCUMENTS SUCH AS CANCELLED CHECKS, COMPUTER TAPES, AND TELLERS BALANCE SHEETS, THE WORKER COMPUTES AND BALANCES ITEMS. (21 task sheets)



## ACQUISITION

## RECEIVES

cancelled checks, adding machine tapes/computer tapes, coding machine tapes/batches of checks/tellers balance sheets/deposit slips/debit, credit tickets/computer rejected charge tickets (sales)/bank statements

## Obtains

deposit tickets/statistical data/all checks completely, partially cashed

## PROCESS

## COMPUTES

cancelled check total/total of checks computer rejected/bank balance/debits, credits/percentages/deposit slip totals/new cash balance/sales charge tickets/service charge/totals in ledger

## Writes

deposit amount on summary sheet/current bank balance on summary sheet/amount of cash on tellers report form/total coins on coin sheet/bank balance form/totals of charges, credit tickets in charge accounts ledger

## Adds

debits, credits, cashiers checks/all checks/sales charge tickets

## Counts

money in cash drawer (Photographs)

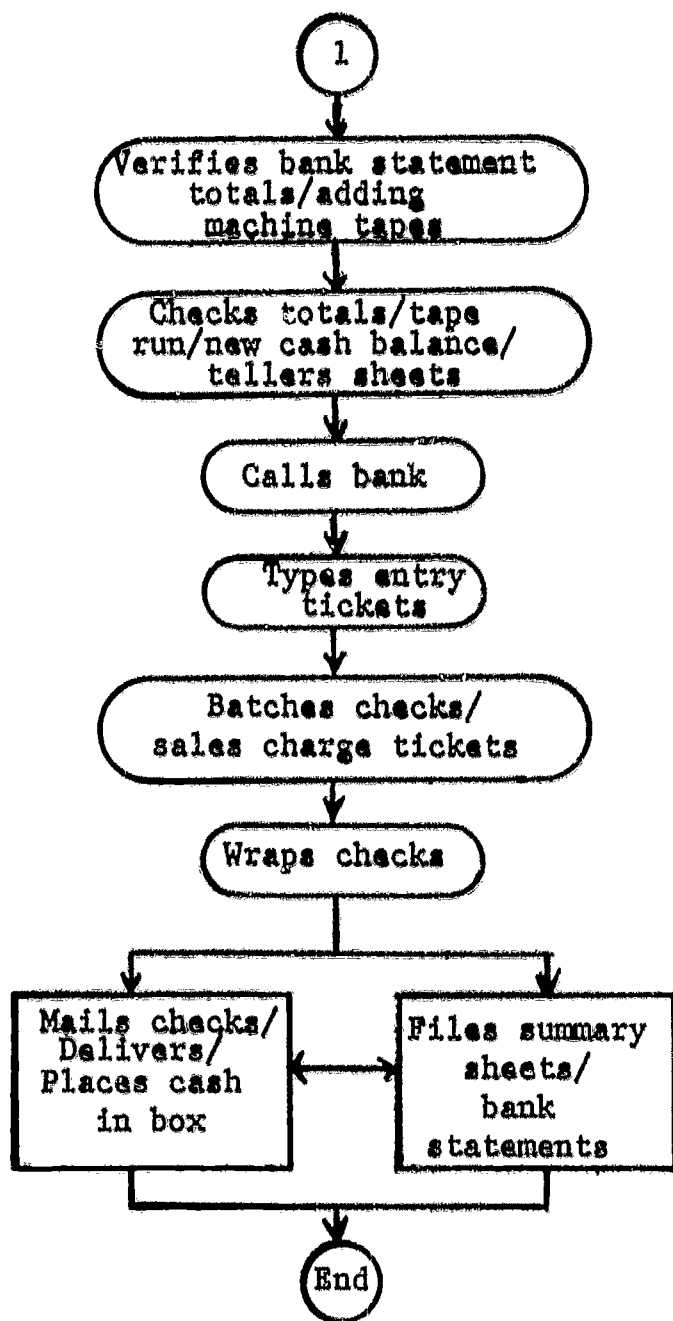
## checks

## Totals

balance sheet/debits, credits/deposit slips/cash paid out/sales from charge tickets

## RECORDS

total computer rejected checks/checks drawn on summary sheet/data on graph/deposit slip totals on master sheet/totals on recap sheet/denomination of cash on balance sheet



Balances  
entry tickets, proof sheets/ledger

Verifies  
bank statement totals/adding machine tapes

CHECKS  
totals/tape runs/new cash balance/  
tellers sheets

CALLS  
bank for lock-box figure (for checks  
sent directly to another bank)

TYPES  
entry tickets for batched stacks of  
debit, credit tickets

Batches  
checks, list of checks/sales charge  
tickets

Wraps  
checks

Inserts  
cancelled checks in envelopes

DISPOSITION

MAILS  
cancelled checks to branch/corres-  
pondent banks

FILES  
summary sheet/bank statements

DELIVERS  
master sheet of debits, credits to  
supervisor/graphs to supervisor/tellers  
reports to head teller/sales charge  
slips to Data Processing

Places  
cash in box

REPORTED CRITERIA:

"Must be accurate; A good knowledge of bookkeeping would be helpful but not a necessity; Relatively good in math, checking, proofreading; Cash must be balanced before worker leaves for day; Must work effectively with numbers, balance control sheet; All cash correctly totaled; Knowledge of debit, credit entries"

HARDWARE

Adding machine  
Telephone  
Typewriter  
Calculator

SOFTWARE

Bank statements  
Cancelled checks  
Deposit slips  
Debit/credit slips  
Computer, adding  
machine tapes

EDUCATIONAL CUES

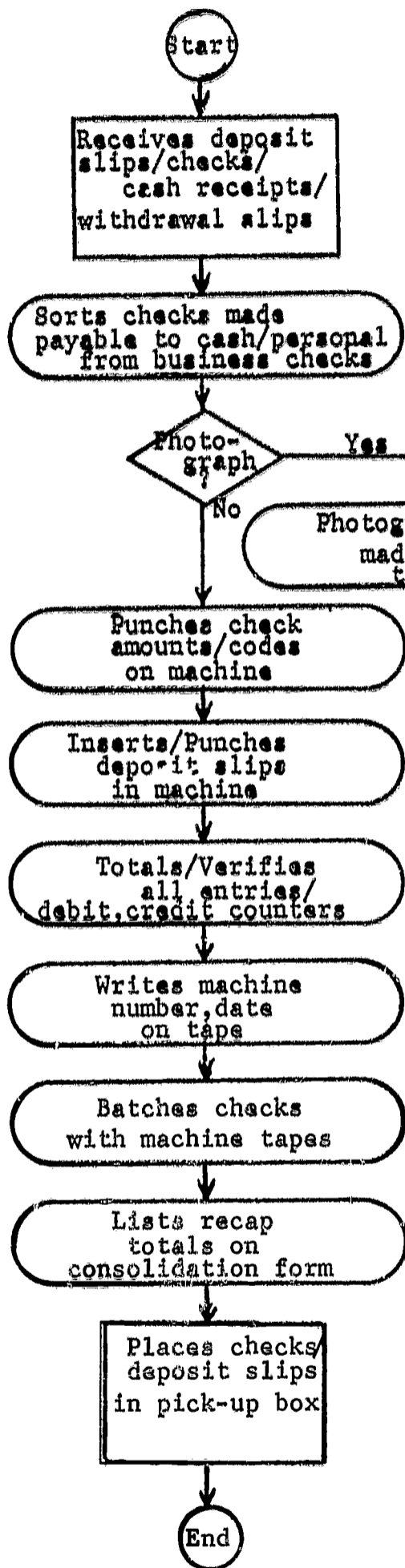
Accuracy  
Checking

Concentration  
Computational skills

CRITICAL INCIDENTS: "Late at night after the supervisor had gone home, the worker discovered an error he did not know how to correct. Because he understood the consequences of leaving the error, he contacted the supervisor at home for assistance."

"The worker was \$5,000 out of balance. He could not find the error so he clocked out and went home. The next day was an absolute waste."

3. GIVEN DEPOSIT SLIPS, CHECKS, CASH RECEIPTS, OR WITHDRAWAL SLIPS, THE WORKER CHECKS COMPUTATIONS BY USING A PROOFING MACHINE. (8 task sheets)

HARDWARE

Proofing machine  
Camera

SOFTWARE

Deposit slips  
Checks  
Cash receipts  
Withdrawal slips

EDUCATIONAL CUES

Checking  
Average knowledge of bank terminology  
Accuracy/speed

REPORTED CRITERIA: "Must balance accurately; Poor performance would be costly to bank for salaries of other workers who would have to locate errors; A good day's output would be 10,000 checks and deposits entered on proofing machine; Thoroughness in reading all checks and deposits from documents and not relying on memory"

CRITICAL INCIDENTS: "The worker entered a \$30,000 item on machine as credit instead of debit and kept overlooking this in reconciling."

"The worker has a tendency to punch the same figure that is on the check for the figure that is on the deposit slip. If they do not agree, this will throw our balance off."

"In balancing checks, the total is carried forward until worker is finished. The worker picked up incorrect total once because she looked at wrong tape. She had to re-proof batch of checks."

4. GIVEN AUDIT ASSIGNMENT SHEETS, THE WORKER PERFORMS AUDIT OF PARTICULAR FUNCTIONS IN INDIVIDUAL DEPARTMENTS OF THE BANK. (1 task sheet)

Receives audit assignment

Determines order in which, dates on which audits will be initiated

Arranges with co-workers for assistance with audit

Scans previous audits, directions on how to conduct audits

Obtains needed financial records such as ledger cards, computer listings, outstanding checks

Checks procedures used in maintaining financial records in department being audited

Balances financial records

Checks balances with ledger and computations

Locates most recent date financial records in balance to present date

Composes verifications to bank personnel on exceptions noted

Writes report on audit

Delivers audit report to supervisor in Auditing

CRITICAL INCIDENTS: "The worker discovered an embezzlement in one department because he was very persistent in questioning individual involved. He knew the answers were not correct."

"The worker failed to get facts straight from interviewee. He made his audit report based on erroneous information."

5. GIVEN TRANSACTION TICKETS AND TAX SERVICE REFERENCES, THE WORKER DETERMINES TAXABLE EFFECT OF TRANSACTIONS AND ENTERS TAX CODE ON TICKET. (1 task sheet)

6. GIVEN NIGHT DEPOSITS, THE WORKER CHECKS, COUNTS, AND RECORDS ALL MONIES RECEIVED. (1 task sheet)

Receives night deposit

Records number of deposit bags, envelopes, numbers on recording sheet

Counts currency and coin

Checks deposit slip amounts with amounts of deposit/endorsement on checks

Runs deposit, receipt slip through receipt machine

Mails receipt slip to customer

Records amount of cash addition slip in teller machine

7. GIVEN COLLECTION RECEIPTS FOR UTILITY BILLS, THE WORKER PAYS UTILITY COMPANIES FOR BILLS PAID AT BANK. (1 task sheet)

Collects receipts for utility bills from tellers

Sorts receipts by company name

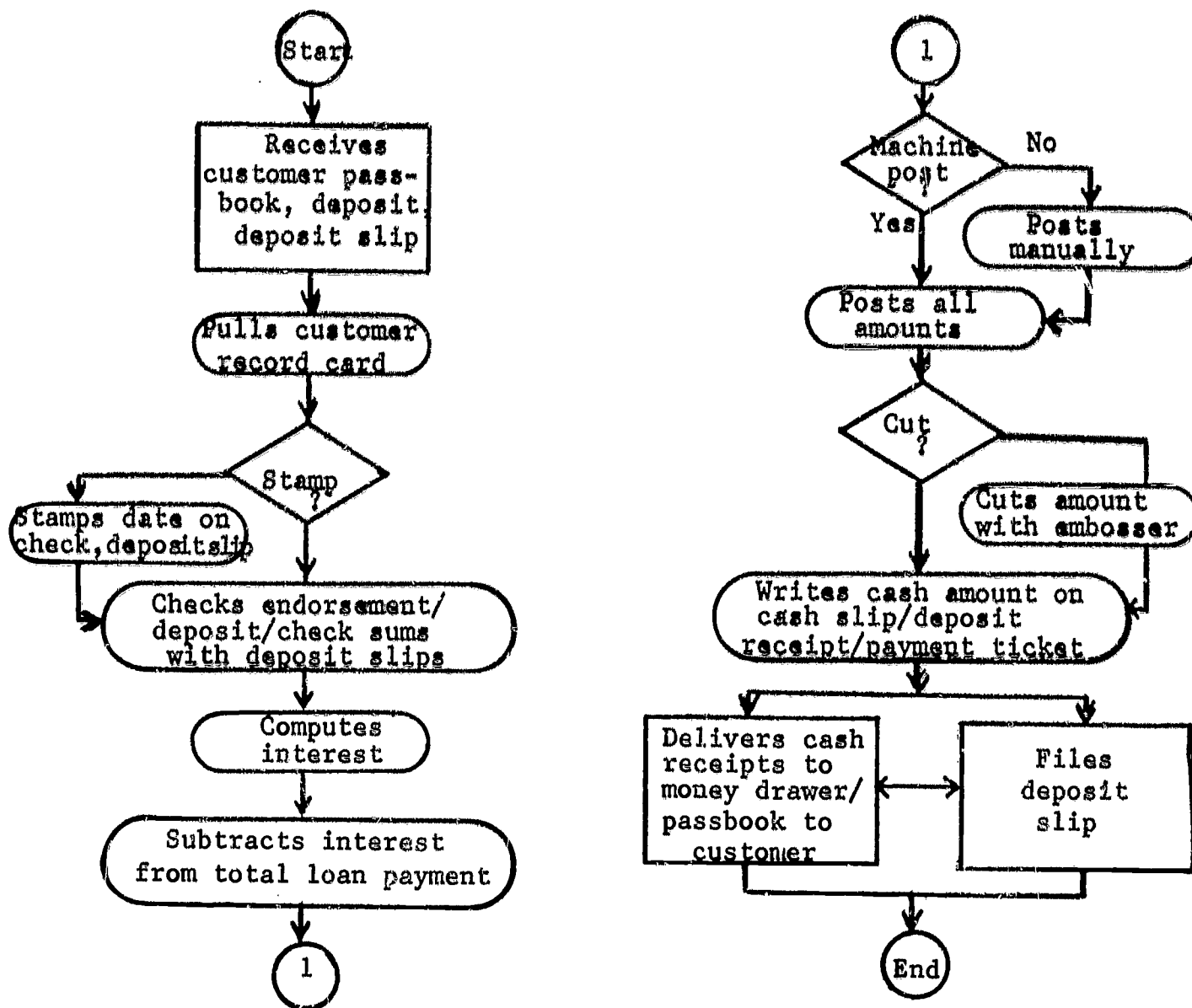
Totals receipts

Types bank money order for utility company

Mails money order to utility company



8. GIVEN A CUSTOMER, SAVINGS/LOAN BOOK, DEPOSIT, DEPOSIT SLIP, THE WORKER HANDLES RECEIPTS FOR CUSTOMER ACCOUNTS. (12 task sheets)



SUPPLEMENTARY STEP: Obtains cash box from vault

HARDWARE

Adding machine (10-key)  
Stamp  
Posting machine  
Tellers machine  
Files  
Check embossing machine

SOFTWARE

Passbooks  
Deposit checks, slips  
Negotiable instruments  
Customer record

EDUCATIONAL CUES

Accuracy  
Checking  
Filing

Note: Hardware, Software, Educational Cues and Reported Criteria refer to goals 8 and 9.

REPORTED CRITERIA: "Accuracy in counting cash is a must; Adherence to rules concerning security; Careful checking for forgeries; Count cash quickly and accurately; All deposits or withdrawals properly recorded and correct, change given in order to balance at end of the day; Remain alert; Losses suffered by bank for errors are noted on tellers sheet"

9. GIVEN A CUSTOMER, SAVINGS/LOAN BOOK, THE WORKER HANDLES DISBURSEMENTS FOR CUSTOMER ACCOUNTS. (12 task sheets)

Receives customer, passbook, check/foreign money  
Checks endorsement/bank on which drawn/savings account/identification  
Determines if check is good  
Stamps negotiable instrument with date  
Counts cash for check/negotiable instrument amount  
Records withdrawal on teller machine, on savings record  
Delivers cash to customer  
Files check/withdrawal slips/negotiable instruments

SUPPLEMENTARY STEP: Advises customer/contacts supervisor if check invalid

10. GIVEN SECURITIES, FORMS, PRINTOUTS, AND ADDING MACHINE TAPES, THE WORKER CHECKS SECURITIES AND AMOUNTS. (4 task sheets)

Receives securities, forms, adding machine tapes/printouts of previous day's transactions/comparisons (individual forms on each trade)  
Obtains original issue book  
Runs tape on security amounts  
Checks tape totals/printouts for errors/forms for completion and corrections/transactions with issue book  
Types list of accounts in error  
Initials tapes, forms  
Stamps comparisons "okay" if correct  
Distributes forms  
Delivers tapes, listing of securities/comparisons to another worker  
Files printout by company name

11. GIVEN CLAIM FORMS OR MEMOS, THE WORKER RESEARCHES CLAIM IN REGARD TO TRANSFER, TRADE, OR EXCHANGE OF SECURITIES. (2 task sheets)

Receives claim forms/memo indicating exchange  
Checks number of shares of stock/memo information  
Codes claim information  
Computes dividend  
Checks all balances computed  
Completes forms  
Delivers forms to supervisor

12. GIVEN FINAL DAILY SHEETS FROM BROKERS, THE WORKER RECORDS, RUNS TAPES ON TOTALS, AND COMPILES SUMMARY SHEETS ON ALL EXCHANGES. (2 task sheets)

13. GIVEN COUNTER TICKETS FOR SECURITIES, THE WORKER CHECKS TICKET NUMBERS AND ISSUED RECEIPTS TO MESSENGER. (1 task sheet)

14. GIVEN SECURITIES AND DELIVERY BILLS, THE WORKER COUNTS AND TOTALS ALL SECURITIES AMOUNTS. (1 task sheet)

15. GIVEN STOCKS TO BE DELIVERED TO ANOTHER BROKER, THE WORKER PROCESSES STOCK TRANSACTIONS. (1 task sheet)

Receives stock  
Verifies stocks  
Assigns number to stock  
Calls broker  
Informs broker of names of stock and pertinent data  
Verifies authorizations, checks  
Delivers stock to messenger  
Receives receipt  
Records transactions  
Types collection letter  
Mails collection letter to correspondent bank

16. GIVEN BUY AND SELL ORDERS, THE WORKER PROCESSES THE SETTLEMENT OF STOCK TRANSACTIONS. (2 task sheets)

Receives buy/sell orders  
Verifies description of securities for goods delivery form  
Completes instructions  
Sends instructions, cash/check to broker  
Completes credit, delivery instructions  
Sends instructions to another bank  
Debits bank branch  
Records debit, credit entries  
Types advice/confirmation forms  
Photocopies advice copies  
Sends advice to trust branches for balancing, to Data Processing/confirmation forms to concerned parties  
Delivers stock by messenger, registered mail/armored transport

17. GIVEN INVOICES ON BUYING AND SELLING OF MUNICIPAL BONDS, THE WORKER PROCESSES TRADING OF SECURITIES. (1 task sheet)

Receives invoices  
Checks invoices figures  
Types forms from invoice information  
Distributes forms to Operations and trust auditor  
Files copy of form  
Receives trust officer's check from Operations/security from Collections  
Delivers check to Collection/securities to co-worker  
Files copy of forms

18. GIVEN UNISSUED SAVINGS BONDS, THE WORKER FILLS REQUISITION ORDERS FOR SAVINGS BONDS DAILY. (1 task sheet)

Obtains unissued savings bonds  
Signs for amount of bonds obtained  
Receives requisition, shipping sheet  
Locates on requisition number, denomination of bonds requested  
Records requisition number, denomination, serial number of bonds shipped  
Obtains accuracy verification of requisition, bonds  
Packages, weighs requisitions, bonds, packages  
Returns package to vault

19. GIVEN CALL BONDS AND A NATIONAL PUBLICATION, THE WORKER PROCESSES ALL CALL BONDS. (1 task sheet)

Receives national publication, call bonds  
Compares bonds listed in publication with bonds bank owns  
Writes on note pad security number of bonds bank owns listed in publication  
Sorts bonds  
Composes, types letter of bonds description  
Proofreads letter  
Mails letter registered mail  
Types two sales tickets  
Delivers original sales tickets, money to Operations  
Attaches copy of letter to copy of sales ticket  
Files letter and sales ticket/national publication

20. GIVEN A CUSTOMER REQUEST FOR THE PURCHASE OF A GOVERNMENT BOND, THE WORKER SELLS GOVERNMENT BONDS. (1 task sheet)

Receives request to purchase Government bond  
Types bonds  
Stamps bond copies with bank number, name  
Delivers original bond to customer  
Records sales in folder  
Types report on purchase  
Mails report to state capital  
Credits bank's account for money  
Files copy of bond

21. GIVEN OUTGOING CASH LETTERS IN FOREIGN CURRENCY FROM OWN BANK OFFICERS AND DOMESTIC CORRESPONDENT BANKS, THE WORKER PROCESSES OUTGOING CASH LETTERS FOR IMMEDIATE CREDIT TO ACCOUNTS. (1 task sheet)

Receives cash letters  
Verifies checks and currency exchange rates  
Types deposit tickets  
Runs tape for credit entries/debit entries  
Types total on credit entry letter/debit entry letter  
Sends debit and credit portions of deposit tickets to Data Processing  
Batches checks for some currency  
Verifies foreign, local currency amounts on batch sheet  
Records foreign, local currency amounts, conversion rate on cash letter form  
Signs all checks  
Photographs checks  
Mails checks with cash letter to correspondent banks  
Files copy of cash letter  
Sends batch sheet to Bookkeeping

22. GIVEN A DEED OR DEATH CERTIFICATE, THE WORKER ADDS/DELETES A NAME FROM A LOAN FILE, BANK RECORDS, AND INSURANCE POLICIES. (1 task sheet)



23. GIVEN INCOMING CASH LETTERS FOR FOREIGN CORRESPONDENT BANKS, THE WORKER PROCESSES THE CASH LETTERS FOR IMMEDIATE CREDIT TO THEIR ACCOUNTS. (1 task sheet)

Receives cash letters  
Sorts cash letters  
Pulls ledger sheets  
Posts correspondent bank's reference number, amount shown on letter  
Verifies total on letter  
Runs letters, checks through microfilmer  
Attaches tapes to checks, duplicate to letters  
Types deposit ticket for each remittance letter  
Sorts credit tickets  
Sends credit tickets to correspondent bank  
Files copy of credit ticket  
Records totals on credit entry letter  
Sends debit portion of letters to foreign bank bookkeeper  
Types interoffice debit entry letter for each total amount of checks  
Sends credit portion of letters to Transit  
Runs tape (debit, credit) on interoffice entry letters for balancing  
Sends entry letters to Bookkeeping

24. GIVEN A REQUEST FOR A LOAN, THE WORKER PROCESSES LOAN APPLICATIONS. (6 task sheets)

Receives loan customer  
Interviews customer  
Informs customer of monthly payments  
Requests customer complete application  
Receives completed application/notes/chattel mortgages  
Obtains credit approval on loan or  
Types reject card, places card, application in basket  
Obtains coupon payment books if loan approved  
Types mortgage forms for file  
Computes net worth of applicant/percentage of loan to value of loan  
Totals monthly mortgage payments  
Checks computations/documents for accuracy  
Compiles file on applicant  
Records application, amount  
Holds all mortgage applications for additional data  
Files loan application

HARDWARE

Typewriter  
 Adding machine (10-key)  
 Files

SOFTWARE

Loan applications  
 Notes  
 Chattel mortgages  
 Coupon payment books  
 FHA payments book

EDUCATIONAL CUES

Checking  
 Communication skills  
 Computational skills  
 Accuracy  
 Filing/Typing

REPORTED CRITERIA: "Able to organize work efficiently; Must establish priorities; Proficient in typing, adding machine calculating, math, arithmetic skills; General knowledge of mortgages is advantageous"

25. GIVEN THE BOOKKEEPING RESPONSIBILITIES OF A SMALL BANK, THE WORKER PERFORMS THE PAYMENT AND BOOKKEEPING DUTIES. (1 task sheet)

Receives payments

Computes interest, principle

Posts accounts

Types debit, credit entry letters, computation tickets

Balances daily work

Sends daily work to Data Processing/bills, past-due notices to customer

Maintains files

Closes loans

26. GIVEN ACCOUNT CARDS, THE WORKER TAKES A TRIAL BALANCE ON ALL INSTALLMENT LOANS. (1 task sheet)

Receives account cards

Sorts loan cards by due date

Adds balances on each card

Verifies totals

Obtains approval of supervisor

Files report with abstract

27. GIVEN A REQUEST FOR BENEFICIARY STATEMENT INDICATING A PROSPECTIVE BUYER, THE WORKER PROCESSES ASSUMPTIONS OF LOANS. (1 task sheet)

Receives request for beneficiary statement

Types beneficiary statement

Obtains approval of statement/completion of forms/loan committee approval

Types approval letter

Receives closing papers from Escrow

Processes payments, loan fees, fire insurance data

Sends completed loan file to Loan Accounting for further processing

28. GIVEN PAYMENTS, LOAN PAYMENT SHEETS, JOURNALS, AND OTHER SOURCE DOCUMENTS, THE WORKER POSTS ENTRIES TO THE LEDGER. (13 task sheets)

#### ACQUISITION

##### RECEIVES

payments from teller/loan payment sheets/loan slips/journals/batches of checks/check, loan payment books/deposits, deposit slips

#### PROCESS

##### SORTS

payment coupons by type of loan/new, old bans alphabetically/withdrawal slips numerically

##### CHECKS

account numbers/name of account/previous balances

##### Totals

groups of payments/deposit tickets/withdrawal slips

##### Pulls

account cards/loan payment sheet/statement sheet/ledger cards

**POSTS**

coupon totals with bookkeeping machine/withdrawals/deposits/loan payments/  
correcting entries

**RECORDS**

real estate, installment loan payments on monthly payment sheet/loan  
payments in loan payment books/interest due on accrual sheet/recap sheet  
totals/amount, bank of checks

**COMPUTES**

ledger totals/daily payments received/posting machine totals

**Verifies**

ledger totals/posting machine totals with proof machine operator/total of  
group payments with teller totals

**CUPLICATES**

all checks and deposit slips

**DISPOSITION****FILES**

account cards/loan payment sheets/checks/journals, cards/ledger cards/  
bookkeeping machine master tape

**Sends**

closed account ledgers to Filing/checks, tapes for further processing  
to another worker

**DELIVERS**

loan payment book to customer/deposit slip to another worker

**SUPPLEMENTARY STEP:** Cancels checks written on checking accounts with  
cancelling machine

**HARDWARE**

Calculator  
Bookkeeping machine  
Duplicator  
Files

**SOFTWARE**

Payments  
Loan payment sheets  
Loan slips  
Journals  
Deposit slips

**EDUCATIONAL CUES**

Checking  
Accuracy  
Filing

**REPORTED CRITERIA:** "Work must be done daily; Great deal of concentration  
and accuracy required; Good legible handwriting; Perseverance in seeking  
solution to errors and analytical mind to guess where errors might occur;  
Ability to scan numbers quickly and accurately; High degree of prolonged  
alertness; General knowledge of work performed; Work must be balanced before  
leaving for lunch or at the end of day"

**CRITICAL INCIDENTS:** "The worker sometimes posts the incorrect account  
numbers because of the general rush and her lack of concentration."

"The worker neglected to post entries of a previous date and proceeded  
with posting of current transactions. She had not checked balances or  
she would have caught the error."

29. GIVEN SOURCE DOCUMENTS SUCH AS STOCKS AND BONDS, DEPOSIT SLIP,  
PASSBOOKS, THE WORKER RECORDS ITEMS. (18 task sheets)

## ACQUISITION

## RECEIVES

stocks, bonds/savings deposit slips/passbooks/conversion sheets/money/  
record of sale of securities/deposits from tellers/overdrawn statements/  
loan history cards/copy of all transfers/deposit slips, checks to be  
issued/levy, attachment/overdraft report/daily reports/batch of stubs  
from transactions

## PROCESS

## CHECKS

endorsement

## Stamps

check/levy, attachment with teller number, date

## Writes

amount of note on journal sheet/charges for out-of-town checks, exchange  
charges on deposit slip/customer name, overdraft amount in log

## Runs tape

on stocks and bonds/on insurance premium, interest, principle/on holdover  
listings

## SORTS, Counts

cash

## CHECKS

tapes with securities

## Searches

record sheets for account information on levy or attachment

## Pulls

overdraft check for each check listed in overdraft report

## RECORDS

totals of teller report on summary sheet/deposits/total on recap sheet/  
breakdown figures from loan history in book/transfers, deposits, checks  
to be issued/check, savings deposit on teller machine/amount of checks  
to be deposited on deposit slip/information on levy, attachment/account  
name, number, machine number, reference number, date of stub, amount on  
holdover form

## TYPES

form letters to marshalls, IRS, customer regarding levy, attachment/  
check return notice/report information on customer cards

## Proofreads

typewritten materials

## Runs tapes

on recap sheet columns/on checks, cash

## Totals

savings deposit checks/deposit slips/daily overdraft

## Verifies

totals/control sheet against computer totals

## Obtains

teller stamp on deposit slip/signature of two officers on overdraft

## Batches

deposit slips



## DISPOSITION

## MAILS

letters regarding levy, attachment.

## Places

money in cash drawer

## DELIVERS

passbook to customer/journal sheet to Posting/teller's report to head teller/deposit slips to Proofing/return notices, check to Cashier

## FILES

deposit slips/report copies

HARDWARE

Adding machine  
Teller machine  
Files  
Typewriter

SOFTWARE

Stocks, bonds  
Deposit slips  
Passbooks  
Conversion sheets  
Cash, checks  
Levy/attachment  
Batches of stubs  
Daily reports  
Loan history cards  
Overdrawn statements

EDUCATIONAL CUES

Accuracy  
Alertness  
Checking  
Computational skills  
Typing  
Filing

REPORTED CRITERIA: "Care in entering figures; Must be efficient; Polite to customers; Accurate data transferring"

30. GIVEN CUSTOMER REQUEST OR STOP-PAYMENT FORM, THE WORKER HANDLES ALL STOP PAYMENTS. (5 task sheets)

Receives call from customer/stop-payment form

Writes check number, amount, to whom payable on stop-payment card/customer name, account number, date on debit reversal form

Inquires if duplicate check will be written

Requests customer write letter confirming order

Records day, time of report on form, in book

Types stop payment/issue reversal form

Duplicates stop-payment form

Checks check register

Stamps confirmation on stop order

Files stop-payment card copy

Delivers stop-payment check, debit reversal form to supervisor/copies of stop-payment form to bank tellers

CRITICAL INCIDENT: "The worker paid a check because she carelessly overlooked a stop-payment card. Consequently, the bank acquired an old, crippled horse. The writer of the check had learned of the horse's condition and tried to stop payment. The horse now resides in a rented pasture."

31. GIVEN BAD CHECKS RECEIVED FROM CUSTOMER'S BANK, THE WORKER REVERSES  
LOAN PAYMENT ENTRIES. (1 task sheet)

Receives returned customer checks, charge slips indicating reason for check  
bouncing

Checks amount on check with charge slip

Locates customer's loan number

Writes customer's loan number on bad check

Posts loan number with posting machine

Checks posting list for loan payment information

Writes breakdown of loan payment (interest, principle)

Types returned check list

Checks breakdown totals

Delivers loan information cards, copy of list to supervisor/checks, copy  
of list to Loan Service

32. GIVEN ORAL/WRITTEN REQUEST, THE WORKER PROCESSES ESTATE SETTLEMENTS  
FOR CUSTOMERS. (3 task sheets)

ACQUISITION

RECEIVES

oral/written request

Obtains

file of deceased/description of deceased's real property/list of furniture,  
household goods, wearing apparel/death-date value of securities

PROCESS

SORTS

estate into real estate, furniture, household goods, wearing apparel,  
securities, miscellaneous

Writes

market value of securities (at date of death) on stock, bond value work  
sheet/schedule of net income/requisitions for checks to be written

COMPUTES

accrued interest on bonds/estate disbursements

RECORDS

accrued interest total of stocks, bond values work sheet/description of  
estate on inventory work sheet

Posts

Value totals in ledger

Devises

plan of distribution

CHECKS

income taxes

RECEIVES

typewritten checks from typist

Obtains

approval of supervisor on schedule

DISPOSITION

DELIVERS

cash statement work sheet/checks/inventory work sheet to administrator  
of estate

<u>SOFTWARE</u>	<u>EDUCATIONAL CUES</u>	<u>REPORTED CRITERIA:</u> "Mathematical ability, legal terminology; Accuracy is a must in estate settlement procedures and full knowledge is necessary"
Customer file	Checking	
Securities	Accuracy	
Ledger		

33. GIVEN A REQUISITION FOR CURRENCY, THE WORKER PREPARES CURRENCY FOR SHIPPING ORDERS. (1 task sheet)

Receives request/requisition for currency  
Writes information on payroll slip form  
Totals amounts  
Obtains currency from vault  
Runs tape on amount of currency  
Attaches tape to payroll slip  
Files payroll slip  
Places currency in bag with name of company

34. GIVEN COINS FROM THE FEDERAL RESERVE BANK DAILY, THE WORKER SORTS COINS. (2 task sheets)

Obtains currency from vault  
Signs for number of bags, amount received  
Places coins in coin-counter machine  
Checks for bent, foreign, counterfeit, old coins, bills  
Replaces bad coins  
Sorts bills (fit, unfit)  
Records coin and bill count  
Places coins in bag  
Ties bag  
Wraps bills  
Stamps packages of bills  
Totals bad coins  
Delivers bad coins to supervisor/finished bags to vault

35. GIVEN A REQUEST FOR CREDIT INFORMATION, THE WORKER COMPILES AND DELIVERS CREDIT INFORMATION TO PERSONS REQUESTING IT. (8 task sheets)

Receives request for credit/credit applications  
Calls other departments for customer account information/credit bureau  
Obtains customer file/credit information form  
Writes credit information on note pad  
Types credit information on form  
Proofreads form  
Attaches inquiry form to folder  
Records callers' names in folder  
Delivers credit information to customer  
Sends application to Credit

<u>HARDWARE</u>	<u>SOFTWARE</u>	<u>EDUCATIONAL CUES</u>	<u>REPORTED CRITERIA:</u>
Typewriter	Credit application	Accuracy	"All information must be written/ typed with highest degree of accuracy"
Telephone	Customer file	Typing	
	Credit information form	Communication skills	
	Inquiry form	Checking	

CRITICAL INCIDENT: "The worker did not take down the complete name of the client applying for credit. In checking his credit rating, she was given the credit information on another person with incomplete name reference she had asked for. The client's loan was turned down because of the error. The client subsequently went to another bank as he had never been refused credit before."

36. GIVEN THE RESPONSIBILITY FOR BRANCH BANK CASH, THE WORKER COUNTS AND DISTRIBUTES DAILY CASH TO TELLERS. (2 task sheets)

Estimates needed cash  
Obtains needed cash from vault  
Receives request for additional cash from teller  
Verifies requests  
Counts money  
Delivers money to teller  
Signs form recording exchange  
Delivers copy of forms to teller

37. GIVEN COMPUTER INPUT/OUTPUT, THE WORKER MAINTAINS CONTROL ON INPUT/OUTPUT WORK FLOW BETWEEN CORPORATE TRUST AND DATA PROCESSING DEPARTMENT. (2 task sheets)

Receives input/output, lists of outputs  
Checks output for completion/accuracy  
Records input in log book  
Calls to obtain output delayed  
Informs Corporate Trust of delay reason  
Delivers input to Data Processing/output to Corporate Trust

38. GIVEN DATA SHEETS, THE WORKER POSTS JOURNAL ENTRIES FOR PAYROLL. (1 task sheet)

Obtains data sheets/pre-punched cards/program control cards  
Collates cards by code number  
Punches account number and amount on cards  
Verifies cards  
Delivers cards to Accounting

39. GIVEN BATCHES OF CHECKS, THE WORKER PREPARES BATCHES FOR DATA PROCESSING. (1 task sheet)

Receives batches of checks  
Checks account number, wrinkled checks, checks that do not belong to bank  
Microfilms, computes, verifies all checks/totals  
Delivers checks, computation sheet to Data Processing



40. GIVEN PAYMENT CARDS, CHECKS, AND DEPOSIT/WITHDRAWAL SLIPS, THE WORKER PROCESSES ITEMS FOR KEYPUNCHING. (4 task sheets)

Receives deposit/withdrawal slips, checks, payment cards

Sorts withdrawal, deposit slips

Writes customer account number on deposit slip

Microfilms deposit/withdrawal slips

Operates encoding machine printing account code on deposit slip

Computes total deposit slips/check totals

Checks computations, payment cards

Attaches adding machine tapes to deposit/withdrawal slips

Types form giving totals, deposit, withdrawal slips, bank number, date

Sends deposit, withdrawals/ payment card to Data Processing

HARDWARE

Adding machine (10-key)

Microfilmer

Typewriter

Encoding machine

SOFTWARE

Deposit/withdrawal slips

Checks

Payment cards

Customer account card

Adding machine tapes

EDUCATIONAL CUES

Checking

Accuracy

Typing

Computational skills

REPORTED CRITERIA: "Must have knowledge of savings account, withdrawal procedures"

41. GIVEN CHECKS, THE WORKER TYPES CASH LETTERS FOR CHECKS DRAWN ON BANK BUT CASHED ELSEWHERE FOR DATA PROCESSING. (1 task sheet)

Receives checks

Checks checks for missing account numbers

Records totals on debit, credit sheet

Codes checks with account number on coding machine

Micorfilms all checks

Places checks in box for Data Processing

42. GIVEN COMPUTER REJECTED DEBITS AND CREDITS, THE WORKER LOCATES, CORRECTS, AND DELIVERS ITEMS FOR FURTHER HANDLING. (2 task sheets)

Obtains daily journal sheet, balance report, savings total

Sorts deposits, withdrawals numerically

Scans savings total sheet for rejected items

Pulls rejected items

Locates error in rejected items

Corrects deposit, withdrawal with encoding machine

Sends rejection items to assistant manager for approval

43. GIVEN RETURNED CHECKS, THE WORKER NOTIFIES CUSTOMERS THAT PAYMENTS MADE BY BANK TO INSURANCE COMPANY HAVE BEEN RETURNED. (1 task sheet)

CRITICAL INCIDENT: The worker failed to notify an especially good customer that his insurance had expired. The customer's car was stolen; and rather than lose the customer, the bank absorbed a \$1,700 loss.

44. GIVEN CANCELLATION NOTICES, THE WORKER TYPES INSURANCE CANCELLATION LETTERS. (1 task sheet)

Obtains cancellation notices, balance sheet  
Writes insurance cost on customer insurance card  
Types form letter on cancellation  
Obtains signature of supervisor  
Mails letter

45. GIVEN CUSTOMER FILE, THE WORKER APPLIES FOR VENDOR'S SINGLE INTEREST (VSI) INSURANCE COVERAGE. (2 task sheets)

Obtains customer file  
Locates correspondence for evidence of VSI insurance coverage  
Obtains officer's approval for VSI coverage  
Types insurance information on VSI form  
Proofreads form  
Mails letter  
Files copy of letter  
Receives policies, invoices for coverage  
Checks amount of premium  
Types customer personal data, premium amount on correction sheet forms  
Proofreads forms  
Attaches copy of correction sheet to customer insurance card  
Delivers correction sheet, slips to supervisor  
Files policies, invoices

46. GIVEN AUTO INSURANCE POLICIES, THE WORKER VERIFIES INSURANCE COVERAGE AND REGISTRATION OF THE BANK AS LEGAL OWNER OF ALL AUTO INSTALLMENT LOANS.(1 task sheet)

Receives policies  
Verifies for correct auto, loss payable clause  
Informs employer when evidence of coverage is not received  
Calls insurance agent to verify coverage  
Types auto registration, transfer forms  
Mails registration, transfer forms to Department of Motor Vehicles  
Receives and verifies registration  
Files policy, registration

47. GIVEN CHECKS, SAVINGS AND WITHDRAWAL SLIPS, BALANCE SHEETS, AND OTHER SOURCE DOCUMENTS, THE WORKER CHECKS ITEMS AND CORRECTS ERRORS. (12 task sheets)

#### ACQUISITION

#### RECEIVES

computerized transaction journal/checks paid/savings, withdrawal slips/hold (check) cards/computer listing of savings, withdrawal slips/out-of-state check endorsements/lists of checks on customer accounts/checks, balance sheets with incorrect numbers/exception list on check writing errors/mail deposits/deposit correction tickets/unidentified checks/incomplete checks/cancelled checks

## PROCESS

## Pulls

customer card

## SORTS

savings, withdrawal slips

## CHECKS

hold cards with customer account/accounts for stop payments/checks for date, signature, endorsement/savings, withdrawal slips with computer listing/out-of-state checks for home bank/customer number with check number/check, payment amount/deposit amount received with deposit slip/name on unidentified check/name, address of customer/checks for missing information/cancelled checks for errors to be corrected

## Stamps

deposit slip/back of check if no signature/endorsement on cancelled checks

## DUPLICATES

(photocopies) deposit correction ticket/(Microfilms) incomplete checks

## RECORDS

hold cards on trial balance sheet/stop payments, removal of stop payments/weekly listing of checks issued by customer

## Writes

standard reversal forms for incorrectly cashed checks/substitution slip for correction/credit,debit slip to correct error/new cards for stop payments/total savings, withdrawals on paper/ return item form to out-of-state bank to which check belongs/correct number on check/account number on unidentified check

## TYPES

reverse entry form for out-of-state missent checks/bank-owes, customer-owes letter on incorrectly cashed check

## Totals

control register of all checks processed/amounts of checks misnumbered/debit, credit of deposit correction

## DISPOSITION

## FILES

hold cards numerically/stop cards/savings, withdrawal slips/savings, withdrawal computer listing/copy of deposit correction/completed checks

## DELIVERS

unidentified checks to check clerk/questionable checks to supervisor/savings,withdrawal paper to Posting/correctly numbered checks to Proofing/deposit slip, check to teller

## MAILS

return item form and out-of-state check

HARDWARE

Adding machine (10-key)  
Typewriter  
Files

SOFTWARE

Hold cards  
Checks  
Computer listings

EDUCATIONAL CUES

Computational skills  
Typing, Filing  
Checking, Accuracy

REPORTED CRITERIA: "A great need for alertness; Accurate examination; Typing speed secondary to accuracy; Should be able to understand debit and credit; Must check savings, withdrawal slips with computer listing daily."

48. GIVEN SOURCE DOCUMENTS SUCH AS DEPOSIT SLIPS, ADDING MACHINE TAPES, AND ADVICES, THE WORKER PERFORMS ROUTINE CHECK ON ITEMS. (15 task sheets)

## ACQUISITION

## RECEIVES

checks/deposit slips/cash tickets/adding machine tape/a paid-in-full ledger/new account computer printed stickers/change of address slips/loan payment books/additional deposit sheets/request for verification of receipt for debit, credit amounts from other banks/advices/oral information stating withdrawal, deposit from supervisor

## PROCESS

## Pulls

customer ledger card/supporting documents on receipt of debits, credits from other banks

## Counts

checks

## CHECKS

checks for errors/for checks drawn over \$500/checks for missing information/stop-payment accounts/bill register with customer account/deposit amount/past payments, payment record/if reversing entry made/advices/checks for current date/check amounts with adding machine tape/name, sticker data with change of address slips/date of loan payment/monthly loan payment/accuracy of late charge/codes on loan payment book/account numbers

## COMPUTES

all check totals/deposit required

## SORTS

out checks in error/change of address slips

## CALLS

customer for approval on unauthorized signatures

## Writes

charges to drawee bank on advice/deposit, withdrawal on trust account/approval on correct checks/okayed by phone on checks approved/deposit slip for checks not properly endorsed

## Stamps

"not approved" on unapproved checks

## Attaches

deposit slip to unapproved check/new account stickers to new cards/change-of-address sticker to old card

## RECORDS

rating, dates paid/new deposits on form

## DISPOSITION

## FILES

reviewed checks/copy of deposit slip/customer ledger card

## MAILS

loan payment book to customer/copy of supporting document for debit, credit from other banks/advices to endorsing bank

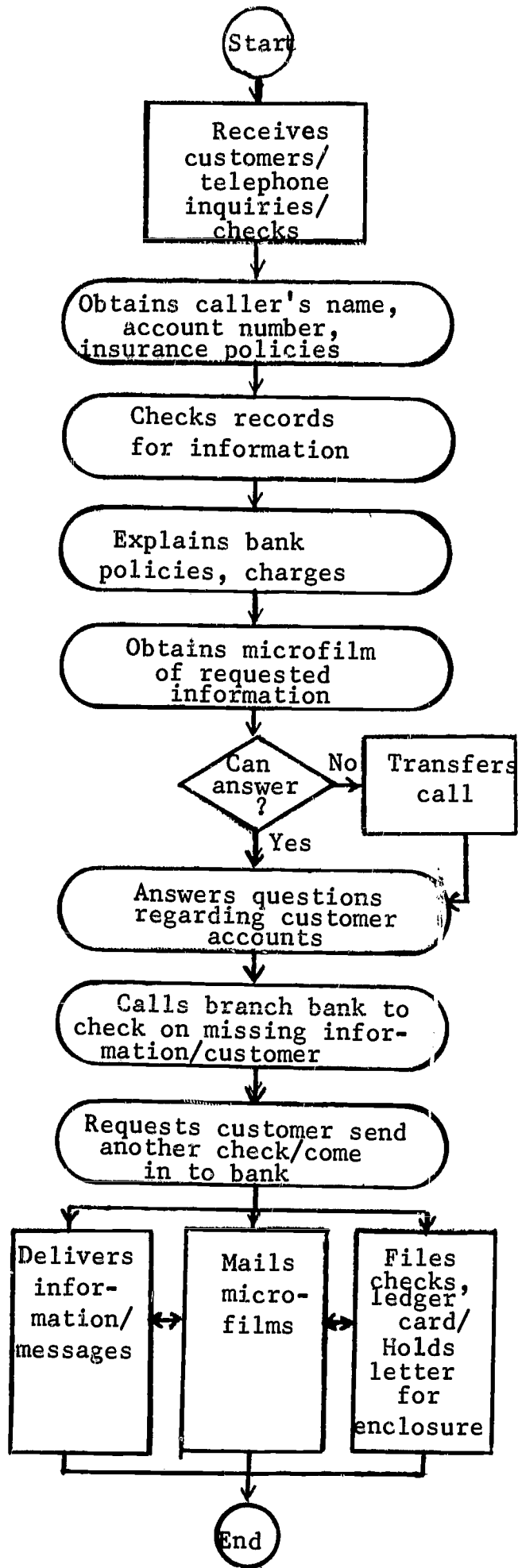
## DELIVERS

unauthorized signature checks, forgeries to supervisor/payment forms on additional deposits/deposit, withdrawal on trust account to Key punching

REPORTED CRITERIA: "Accuracy in filing is a must; Fast skim reading important; Familiarity with bank filing and procedures"



49. GIVEN CUSTOMERS, TELEPHONE INQUIRIES, OR RETURNED CHECKS, THE WORKER HANDLES OVER-THE-COUNTER REQUESTS AND INQUIRIES REGARDING CUSTOMER ACCOUNTS AND BANK POLICIES. (26 task sheets)



ACQUISITION

RECEIVES  
customer/telephone request, inquiry/  
call from loan officer/returned checks  
Obtains  
caller's name, account number/date,  
amount of last deposit/insurance  
policies/customer balance

PROCESS

Pulls  
customer ledger card/customer's  
cancelled checks  
CHECKS  
records for information  
Explains  
bank policy/charges  
Obtains  
microfilm of requested information  
(Answers)  
questions on customer's account  
CALLS  
branch bank to check on missing infor-  
mation/customer whose check was  
returned/other departments in bank  
regarding problems  
Requests  
customer send another check, come  
in to bank

DISPOSITION

DELIVERS  
requested information/debit sheet  
on loans to Accounting/messages  
FILES  
customer ledger card/customer  
cancelled checks  
Holds  
letter missing enclosure  
MAILS  
microfilm of requested information  
to person requesting it

HARDWARE

Telephone  
Files  
Microfilmer

SOFTWARE

Insurance policies  
Customer ledger card  
Cancelled checks

EDUCATIONAL CUES

Coding  
Courtesy  
Promptness  
Communication  
skills  
Alertness  
Filing

REPORTED CRITERIA: "Must be able to operate motorized files; 100 per cent accuracy in information delivered; Knowledge of coding; Pressure not to keep customer waiting; Familiar with bank policy and insurance information; Great deal of discretion required in how much information to give customer; High degree of decision making; Ability to cope with many different situations"

50. GIVEN A TENTATIVE SCHEDULE FOR PAYROLL, THE WORKER COMPILES AND TYPES CUSTOMER PAYROLL SCHEDULE. (1 task sheets)

Receives tentative schedule for payroll

Compiles yearly schedule of due dates, preparation dates, other pertinent information

Types, Duplicates payroll schedule

Obtains approval of payroll schedule by customer

Sends payroll schedule to Payroll Operations

Types payroll schedule with any changes noted, approved

Duplicates revised payroll schedule

Delivers copy of revised schedule to customer, Payroll Operations

51. GIVEN A REQUEST, THE WORKER TRACES ERRORS FOR LARGE CORPORATIONS. (1 task sheet)

Receives request to trace errors from large corporation

Pulls records applicable to error, microfilms of checks

Checks records with microfilms

Determines where loss of money occurred

Composes letter of explanation when error is found

Delivers letter to typist

52. GIVEN CHANGE OF ADDRESSES OR NEW ACCOUNT INFORMATION, THE WORKER UPDATES THE CENTRAL INDEX FILES. (4 task sheets)

Receives change of address forms/new accounts, information/deletion list

Pulls customer central information card/signature cards

Draws line through old address

Writes new address below old address

Types list of changes/change-of-address forms for new customers/mailling labels for new accounts

Attaches new label to file folder

Stamps date on cards deleted from files

Files deleted cards in inactive file

Sends change-of-address forms to Loan/Accounting

53. GIVEN DICTATION, APPLICATIONS, COMPUTER LISTINGS, AND OTHER SOURCE DOCUMENTS, THE WORKER TYPES INFORMATION ON FORMS, CARDS, OR LETTER HEADS. (17 task sheets)

#### ACQUISITION

#### RECEIVES

customer/request form from coders/dictation/mortgage application, credit files/mortgage information/list of newly married depositors/overdraft journal/insufficient funds, overdraft checks, computer listing/new account information, signature cards/ledger cards, forms/new loans/signed loan note/request to follow-up past-due customer accounts

## PROCESS

## CHECKS

information received/overdrafts

## Explains

types of accounts

## Determines

type of account which suits customer needs best

## COMPUTES

overdraft charges/total overdrafts/advice totals

## TYPES

signature card/passbook/deposit slip/form letter/dictated letter/commitment form on mortgage/form letter to newly married depositors/overdraft form/check-return notices/analysis card, index cards with customer data/code number, check amount for branch bank/security loan form for new loan/details of new loan on form/loan payment sheet/loan note ticklers for file/account of reason for overdue account

## Proofreads

all typewritten materials

## Obtains

customer signature on signature card/deposit/signature on letters

## Counts

money for deposit

## Writes

credit ticket form/insufficient funds total on computer listing/check, vouchers for loan

## COMPILES

folder for new accounts

## DISPOSITION

## DELIVERS

ledger cards, form to supervisor/advice, adding machine tapes to supervisor/credit ticket form to general ledger clerk/adding machine tape of overdraft charges to proof-machine operator/check return notice to assistant cashier/deposit, deposit slip to Posting/passbook to customer/mortgage, credit files to real estate officer

## Distributes

copies of commitment to attorney/realtor/auditor

## MAILS

form letters/dictated letters/marriage letters/copy of overdraft form to customer/check-return notice to customer/security loan form to county clerk/overdue-account letter to customer

## FILES

copy of form letter/copy of dictated letter/copy of commitment/copy of loan detail sheet/loan ticklers

SUPPLEMENTARY STEP: Calls customer to remind of past-due account

HARDWARE

Transcribing machine  
Typewriter  
Adding machine  
Files

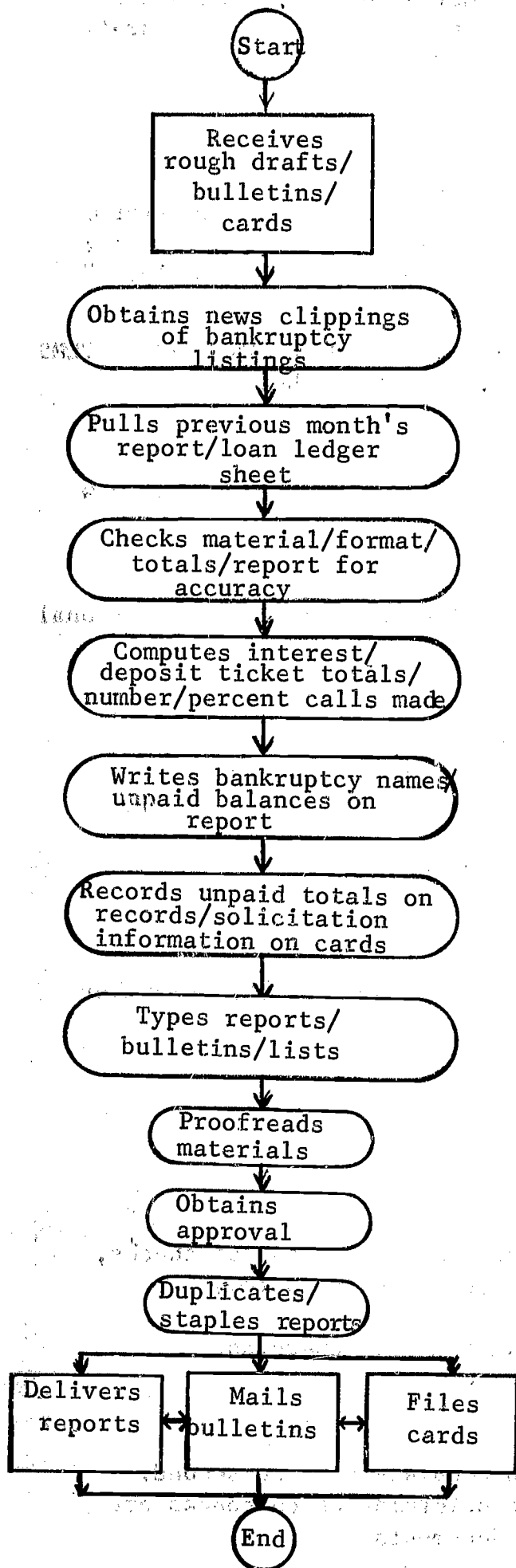
EDUCATIONAL CUES

Shorthand, Typing  
Technical vocabulary  
Checking, Filing  
Computational skills

REPORTED CRITERIA:

"Correct punctuation, grammar necessary; Average typing ability; Good knowledge of savings, loan institutions; Ability to handle customers tactfully, patiently"

54. GIVEN ROUGH DRAFTS AND LISTS, THE WORKER COMPILES AND TYPES REPORTS AND BULLETINS. (14 task sheets)



## ACQUISITION

## RECEIVES

report information/rough drafts/new check, savings accounts listing/dealers payment reports/solicitation cards/bulletins

## Obtains

clippings of bankruptcy listings from newspaper

## PROCESS

## Pulls

previous month's report/loan ledger sheets

## CHECKS

material, format/totals/report for accuracy

## COMPUTES

interest/deposit ticket totals/number of calls made per week for solicitation report/percent of calls made

## Writes

unpaid balances on report/bankruptcy names in bankruptcy book

## RECORDS

unpaid totals on installment loan records/information on solicitation cards

## TYPES

report/check, savings account report/entry tickets crediting dealers trust account for amounts due/entry tickets to pay dealer excess due/bulletins/new accounts on bulletin/bankruptcy list

## Proofreads

all typewritten materials

## Obtains

approval of bulletins

## DUPLICATES

report/solicitation report/bulletins

## Collates, Staples

reports/bulletins

## CALLS

messenger for pick up of report/dealer to request check when trust funds are insufficient to pay amounts due

## DISPOSITION

## DELIVERS

report to bookkeeper, employees, author/new check, savings account list to bank president

## MAILS

new checking, savings account lists to branch offices/other personnel

## FILES

solicitation cards



HARDWARE

Adding machine (10-key)  
 Typewriter  
 Duplicator  
 Telephone  
 Files

EDUCATIONAL CUES

Accuracy  
 Typing  
 Filing  
 Checking  
 Technical language

REPORTED CRITERIA: "Speed is more important than accuracy in preparing a report draft for final copy"

CRITICAL INCIDENT: "The supervisor was late one day due to a snow storm, and the worker took control of the office, delegated work to other girls; and by the time the supervisor arrived, the daily bulletin was complete."

55. GIVEN BANK FORMS, CHECKS, AND INCOMING MAIL, THE WORKER PROCESSES ITEMS FOR MAILING AND DISTRIBUTES INCOMING MAIL. (11 task sheets)

## ACQUISITION

## RECEIVES

computer printout/mail/statements, checks/deposit slips/request for new checks/name, address forms

## PROCESS

## SORTS

mail according to savings, checking deposit/withdrawals/transfers/personal from business mail

## Opens

mail with automatic letter opener/manually

## Pulls

notices addressed to deceased persons/repossessed loans/bankruptcy paid notices/customer file/checks, correspondence

## CHECKS

checks with statement received/for damaged checks

## OPERATES

proof machine on checks, deposit slips

## Writes

microfilm request form for missing checks/reorder form for checks/number of microfilm copies of checks requested

## RECORDS

requests received

## TYPES

addresses on envelopes/name, address forms

## DISPOSITION

## MAILS

check reorder form to printer/correspondence, notices, copy of checks, statements to customers/deposit receipts, passbooks to customer

## DELIVERS

mail for sorting/checks to Sorting/address forms to supervisor

## Distributes

mail to various departments

REPORTED CRITERIA: "Speed is paramount with accuracy a close second; Able to work under pressure of time; Able to determine which checks are damaged enough to warrant making substitute documents"

56. GIVEN ACCUMULATED BATCHES OF TRANSACTIONS, THE WORKER PICKS UP THE BATCHED TRANSACTIONS AND DELIVERS THEM TO THE VAULT AREA. (1 task sheet)
57. GIVEN CANCELLED CHECKS, ADVICES, RECAPS, AND OTHER SOURCE DOCUMENTS, THE WORKER DUPLICATES OR MICROFILMS FOR PERMANENT RECORDS. (9 task sheets)

## ACQUISITION

## RECEIVES

cancelled checks/advices/request for copy of advice/ledger sheets, recap, summary sheets/bookkeeping report sheets/accounts listing/deposits

## PROCESS

## Pulls

advices

## CHECKS

photocopy machine for proper date, microfilm setting/machine date settings

## DUPLICATES

cancelled checks/ledger sheets, summary sheets, recaps/bookkeeping reports

## Collates

reports

## (Microfilms)

all checks/deposits

## RECORDS

information on advices over \$1,000/count on microfilmer/dates of filming, duplicating

## Stamps

"paid" on checks from this bank

## DISPOSITION

## DELIVERS

originals to Accounting/copies to Error and Correcting

## Distributes

bookkeeping reports to other departments

## FILES

cancelled checks/copy of duplicated materials

REPORTED CRITERIA: "Must remain alert while filming checks; If not careful, could cause a microfilm jam; All documents must be microfilmed; Checks must not stick together as there would be no way to correct error"

58. GIVEN ACCOUNT FORMS AND CHECKS, THE WORKER SORTS ITEMS FOR FURTHER PROCESSING. (6 task sheets)

Receives account forms/checks

Checks checks for completeness

Sorts debits, credits/account forms into closed, new accounts, according to type of account, to office, to company, by individual customer/closed accounts out/checks by company branches/payroll checks by machine

(Removes) incomplete checks

Provides substitute documents for damaged checks

Batches, Delivers checks

Files damaged checks

59. GIVEN A REQUEST, THE WORKER HANDLES RENTAL AND OPENING OF SAFE DEPOSIT BOXES. (2 task sheets)

Receives customer request to rent safe deposit box/payment  
Completes safe deposit box forms, cards with customer data  
Writes cash receipt form for payment/check account debit  
Delivers envelope of box/keys to customers  
Requests customer sign name on envelope  
Explains safe deposit box procedures  
Records transaction  
Files copy of signature card/entrance card  
Receives customer visit to safe deposit box  
Obtains box number  
Pulls signature card  
Stamps date, time on internal card with time-punch machine  
Obtains customer signature on entrance card  
Compares signatures  
Obtains master guard key  
Unlocks box  
Delivers box to customer  
Relocks box with master guard key  
Stamps date and time of leaving on entrance card  
Files entrance/signature cards

60. GIVEN A REQUEST, THE WORKER SELLS SAVINGS CERTIFICATES. (1 task sheet)

Receives request for a savings certificate  
Pulls signature card  
Obtains officer's signature  
Receives money for certificate  
Delivers original of certificate to customer  
Records account number on two copies of certificate/option, source of funds, owner of social security number  
Stamps bank number on certificate  
Records double-entry credit to show account credited for money  
Files copy of savings certificate

61. GIVEN A REQUEST, THE WORKER REDEEMS SAVINGS CERTIFICATES. (1 task sheet)

Receives request to redeem savings certificate  
Verifies savings certificate  
Obtains customer signature on certificate  
Records debit to accounts to be debited  
Computes interest accumulated  
Delivers cash, deposit to customer  
Pulls bank copy of certificate  
Stamps certificate with date redeemed, amount of certificate, interest paid, totals  
Files redeemed certificate  
Mails copy of certificate with debits to state capital

62. GIVEN A REQUEST, THE WORKER HANDLES TRAVELERS CHECKS FOR CUSTOMERS.  
(1 task sheet)

Receives customer application for travelers checks

Verifies application for signature and number

Collects money

Verifies amount of money

Delivers travelers checks to customer

Obtains cashiers check for amount owed company

Mails check to company

Records credit to bank for profit

Posts sale of travelers checks to ledger

Files copy of sale

63. GIVEN A REQUEST, THE WORKER HANDLES CHRISTMAS CLUB COUPONS FOR CUSTOMERS. (1 task sheet)

Obtains Christmas club coupons

Checks totals

Sorts coupons by dollar value, numerically

Lists customer account number, coupon number on adding machine tape

Counts number of coupons

Totals coupons

Delivers coupons, adding machine tapes to next employee

#### BANKING CRITICAL INCIDENTS

"The worker must code all deposits and checks when keypunching. The code need only be punched in once, and it is automatically punched on all other cards until changed. The worker was keypunching checks and entered the correct code. Then she proceeded to keypunch deposits but forgot to change the code. The deposits were posted as checks to the customers' accounts. The error was caught the same day but resulted in a lot of extra work for the worker and her coworkers."

"The worker missorted a bank note. The due date was the day after it was received. It took two weeks to locate it. The bank did not make the presentation of the note on time, and the customer wanted interest charges for the overdue period of time."

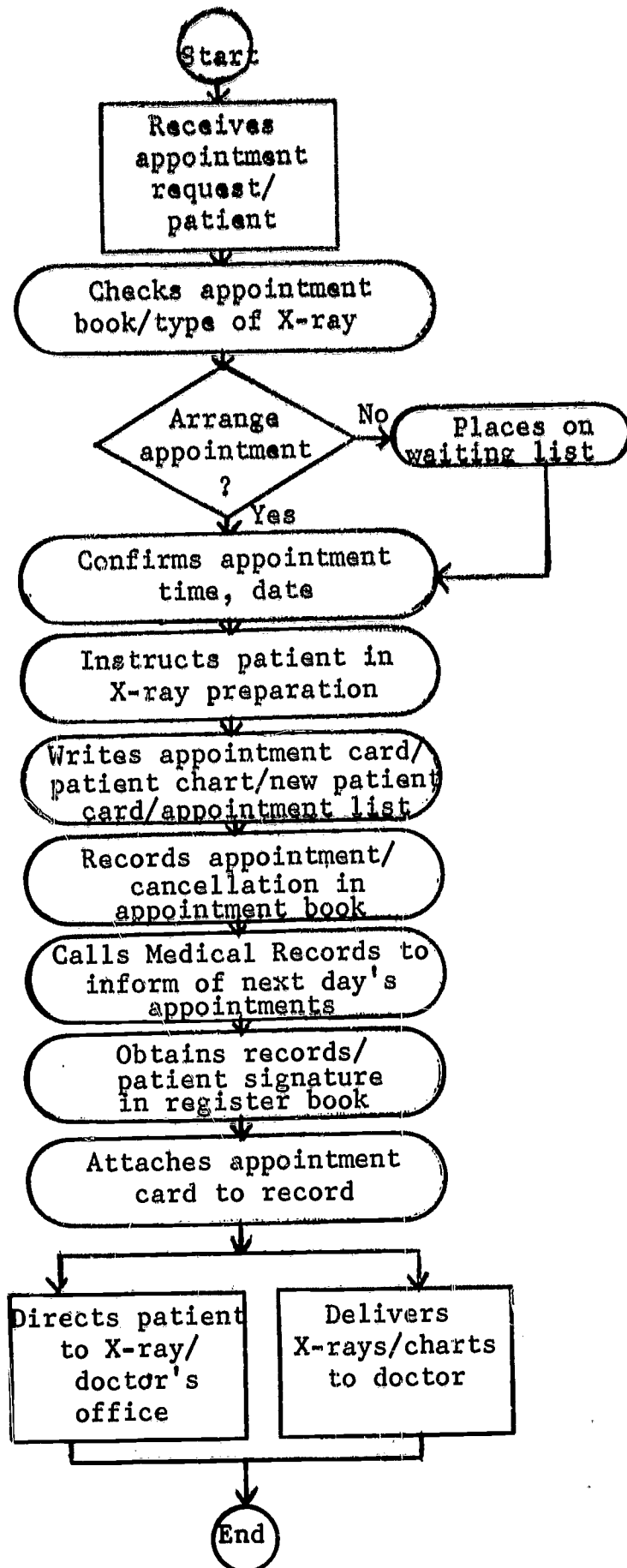
"The worker placed checks totaling close to \$100,000 in the wrong mail bin, and they were mailed to the wrong bank. This bank, therefore, lost 7½ percent interest on this money for the days the checks were in transit."

"While checking all personal and business checks the bank had received that day, the worker found a check without a signature. The check was written out for a very large sum of money. Not even the teller who took in the check caught the signature omission."



II MEDICAL

1. GIVEN A REQUEST FOR APPOINTMENT OR PATIENTS, THE WORKER SCHEDULES AND RECEIVES PATIENTS FOR MEDICAL APPOINTMENTS. (18 task sheets)

HARDWARE

Telephone  
Intercom system  
Files

SOFTWARE

Appointment book  
Register book  
Appointment card  
Patient card

EDUCATIONAL CUES

Communication skills  
Filing; alphabetical  
Checking

REPORTED CRITERIA: "Legible handwriting; Pleasant, outgoing disposition; Tact, helpfulness; Cooperation; Clear diction; Patience; Good psychology in dealing with sick, difficult people; Conservation of time--avoid getting "case history" from patient; Moderate familiarity with types of X-ray, time necessary for each type of X-ray; Knowledge of special preparations for X-ray; Medical terminology"

SUPPLEMENTARY STEPS: If fever suspected, take and record temperature; Pages patient/doctor over intercom system; Sends copies of patient data to Chemistry, Hematology, X-ray, whole-body count, Receptionist; Puts dental bib on patient

2. GIVEN AN ORAL REQUEST, THE WORKER COORDINATES SCHEDULES FOR CONFERENCE ROOM USE BY EXTERNS. (1 task sheet)

3. GIVEN A LIST OF PATIENTS, THE WORKER ARRANGES WEEKLY CONFERENCES WITH DOCTOR. (1 task sheet)

Receives list of patients to attend conferences

Checks patient's chart

Calls/writes message to doctor of each patient to attend conference

Calls consultants for availability

Types list of patients

Calls X-ray department to request X-ray of each patient

Informs patient to attend conference

Delivers list, chart, X-ray to doctor

Sends patient to conference room as requested by doctor

Receives results of conference

Files patient chart

4. GIVEN PATIENTS, LISTS OF PATIENTS, OR MEDICAL RECORDS, THE WORKER CARRIES OUT PROCEDURES FOR HOSPITAL ADMISSION. (10 task sheets)

#### ACQUISITION

##### RECEIVES

list of patients to be admitted/call that patient will arrive for admitting/patient/medical chart/registration forms or cards

##### Obtains

insurance information/records from patient

#### PROCESS

##### CHECKS

bed availability/ID number/chart for completion/personal data/service required and list of doctors to determine floor to which patient should be assigned

##### COMPILES

patient folder

##### CALLS

Central Admitting for patient diagnosis

##### Stamps

date on admitting papers

##### Writes

payment arrangement on account card/registration form/room rate, number on room card/surgeon name on record/note to nurse, doctor that patient is arriving and diagnosis/personal data--marital status, religion, birth date

##### Discusses

hospitalization/room accommodations/payment of bill before discharge

##### Obtains

statement from patient if he can pay/signature of patient on insurance forms, agreement forms/patient personal data

##### Assigns

number to patient

**RECORDS**

room number in log/date on agreement form/method of payment

**TYPES**

3 x 5 card listing patient name, hospital number

**CALLS**

nurse/orderly to take patient to room

**DISPOSITION****FILES**

patient card/chart

**DELIVERS**

file to doctor/registration, account cards to control clerk

**Directs**

patients to room

SUPPLEMENTARY STEPS: Photographs patient on admittance; Tags room card rack indicating room assigned; Requests deposit if patient has no insurance

**HARDWARE**

Typewriter

Files

Telephone

Date stamp

**SOFTWARE**

Hospital registration

forms

Medical chart

List of patients

**EDUCATIONAL CUES**

Typing

Filing

Communication skills

Checking

REPORTED CRITERIA: "Doctor and nurse notified immediately with available information on admitting patient; Clearly and correctly communicated messages; Must be organized and work quickly; Speed more important than accuracy; Able to obtain correct information especially when emergency; Must have calming effect on patients as most are nervous or ill; Knowledge of hospital policy"

5. GIVEN DISMISSAL SLIPS, MEDICAL CHARTS, OR ORAL INSTRUCTIONS FOR DISCHARGE, THE WORKER CARRIES OUT PROCEDURES FOR HOSPITAL DISCHARGE. (6 task sheets)

**ACQUISITION****RECEIVES**

statistical report of hospital patients/doctor's oral instructions for discharge/dismissal slips/daily medical charts of patients to be discharged

**Obtains**

copy of discharge progress form/patient folder/payment/summary report/address cards/case histories

**PROCESS****Stamps**

date on medical charts

**CHECKS**

doctor's summary of patient care/completion of chart/chart coding/case history/ward number

**COMPUTES**

amount due

**TYPES**

discharge report form letter/discharge or transfer summaries

**Proofreads**

letters/typewritten items

**Writes**

doctor's signature on discharge form letter/clearance slip for patient's personal belongings/receipt for payment

**Obtains**

discharge signatures for discharge/forwarding address of patients

**RECORDS**

date of completion and destination

**DISPOSITION****DELIVERS**

dismissal slip to floor nurse/charts for filing

**Sends**

copy of discharge form letter to referring physician, Medical Records, Accounting/chart to Coding

**FILES**

copy of patient correspondence in folder/medical record in inactive file

**Places**

check in drawer for cash and checks

**HARDWARE**

Adding machine (10-key)

Typewriter

Files

Date stamp

**SOFTWARE**

Medical records/charts

Receipts

Cash/checks

**EDUCATIONAL CUES**

Accuracy

Checking

Typing

Filing

Computational skills

**REPORTED CRITERIA:** "Knowledge of medical terminology essential; Accuracy"

6. GIVEN PATIENT ACCOUNTS, THE WORKER CONTACTS AND REQUESTS PAYMENT FROM PATIENTS WHOSE ACCOUNTS ARE DELINQUENT. (2 task sheets)

Receives patient accounts

Searches for leads to ex-patient's whereabouts through telephone calls or letters to friends, relatives, neighbors, or employers

Informs ex-patient of responsibility to pay or legal measures will be taken

Requests immediate payment

Locates addresses of ex-patients

Lists delinquent accounts

Types form letters to patient, his employer

Pulls overdue accounts after six months

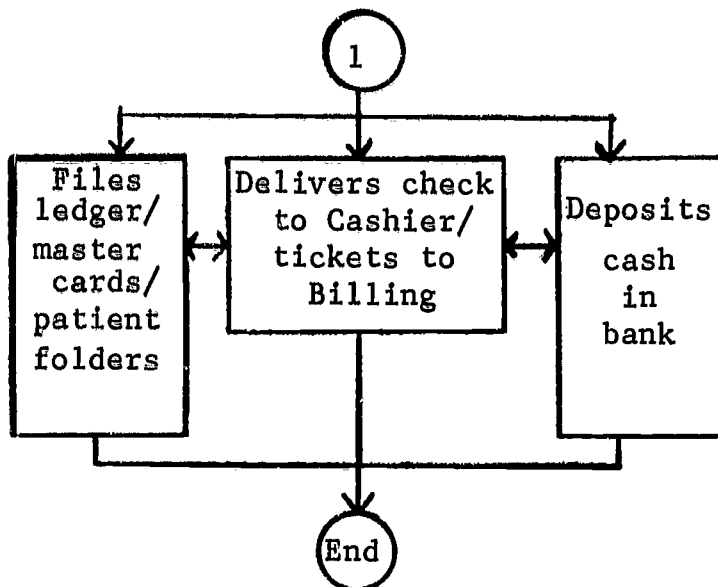
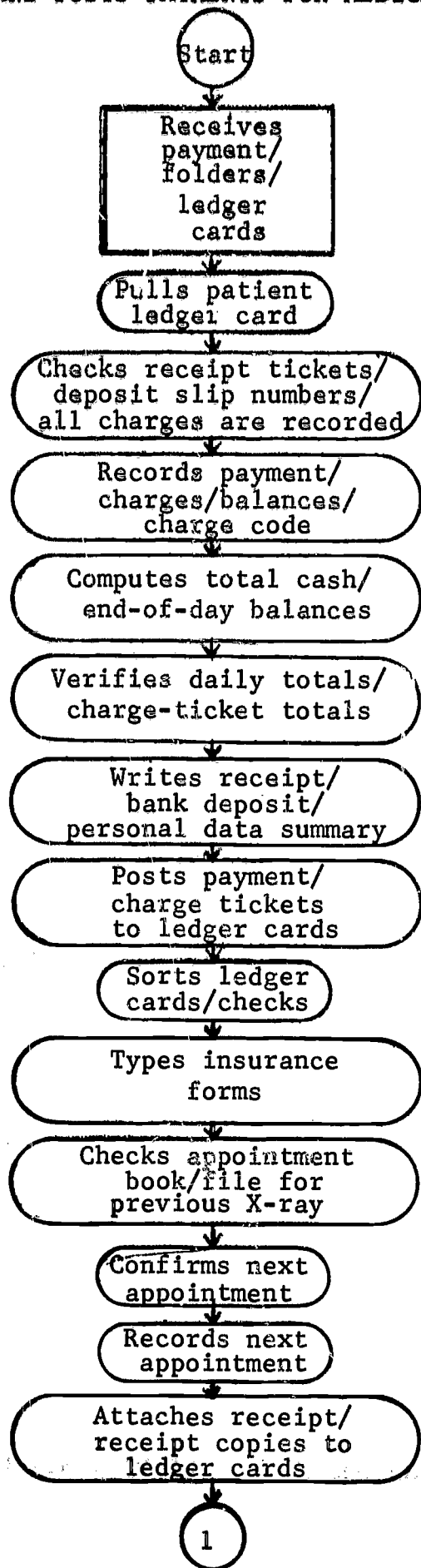
Batches overdue accounts for referral to credit bureau or lawyer

Delivers overdue accounts to supervisor for review

7. GIVEN A REQUEST FOR POSTAGE STAMPS, THE WORKER SERVES THE PATIENTS BY SELLING THEM POSTAGE STAMPS. (1 task sheet)



8. GIVEN PATIENT FOLDERS, LEDGER CARDS, AND PAYMENTS, THE WORKER RECEIVES AND POSTS PAYMENTS FOR MEDICAL SERVICES. (16 task sheets)



SUPPLEMENTARY STEP: Calls out-patient department to report payments

HARDWARE

Posting machine  
Adding machine (10-key)  
Telephone  
Typewriter  
Files

SOFTWARE

Patient files  
Ledger cards  
Deposit slips  
Receipt tickets  
Appointment book  
Adding machine tape

EDUCATIONAL CUES

Accuracy  
Checking  
Typing  
Filing  
Communication skills  
Computational skills

REPORTED CRITERIA: "Accuracy; Each payment properly recorded; Communicate effectively with people; Proficiency in mathematics; Skill in detecting errors as posting; Common sense"

9. GIVEN LAB REPORTS, CASE HISTORIES, AND RECORDS OR AN ORAL REQUEST, THE WORKER RECORDS INFORMATION ON PATIENT CHARTS AND RECORDS. (28 task sheets)

## ACQUISITION

## RECEIVES

lab reports/nurse's listing of patient name, room number, temperatures, pulse, blood pressure/list of patients/oral request for records/records/gain and loss (admitted and discharged) sheets/X-ray authorization/voucher form/case histories/in-coming correspondence/patient ledger cards/charge and receipt tickets

## PROCESS

## SORTS

lab reports/records for filing, other department distribution/all papers in patient's file/charts alphabetically/doctors orders/ledger cards/charge, receipt tickets

## Pulls

patient chart/requested patient record/discharge patient chart/ledger card for charge, receipt tickets

## Obtains

prescribed medicine

## CHECKS

test results received/chart for omission/chart for patient status/patient chart numbers are on lab reports/files for missing records/master file for patient card/chart rack

## Writes

patient number on X-ray authorization form/notation on "out" card with name of person requesting, date record removed/new divider labels

## Attaches

routing slip to record/correspondence to patient's ledger cards/lab report to lab sheet/master card to X-ray authorization, voucher form/label to authorization form, voucher, master card

## TYPES

patient's name, number, doctor's name, date, patient's age on label/oral instructions on standard order form/dictated information on charts/discharge summary on chart

## Proofreads

all typewritten materials

## RECORDS

patient data from nurse's list in notebook/from notebook to patient's chart/patient record pulled/completed order/lab report information on patient's chart/surgeries

## CALLS

all possible borrowers to locate missing record

## DISPOSITION

## Places

lab sheet, report in patient's folder/patient record in doctor's folder

## FILES

health chart folder/records/report in patient's chart folder/patient chart/results of tests/completed chart/patient's ledger cards/case histories

## Sends

doctor's folders to doctors/located record to requestor

## DELIVERS

labelled X-ray authorization form, voucher, master card to X-ray technician/  
nurse's orders to appropriate nurse/medicine to patient/chart to recep-  
tionist/ledger cards, charge, receipt tickets to Posting

HARDWARE

Files  
Typewriter  
Telephone

SOFTWARE

Laboratory reports  
Patient's charts,  
records  
Notebook

EDUCATIONAL CUES

Filing  
Typing  
Communication skills  
Accuracy  
Checking

REPORTED CRITERIA: "No missing statistics, high degree of care in trans-  
ferring numbers accurately; Ability to move quickly in emergency cases;  
Accuracy in filing; Good working knowledge of the work done in other depart-  
ments; Perseverance in searching; No complaints; Must be able to read  
doctor's writing; Knowledge of coded names of tests; Must proofread well;  
Degree of knowledge of medical terminology; Good knowledge of English and  
spelling; Accuracy, attention to small details"

10. GIVEN PATIENT'S ACCOUNTS AND CHARGE SLIPS, THE WORKER COMPUTES, TYPES,  
AND MAILS BILLING STATEMENTS FOR MEDICAL SERVICES. (8 task sheets)

## ACQUISITION

## RECEIVES

billing statements from Data Processing/computer bills/patient account from  
Cashier/charge slips

## Pulls

patient record or chart/patient ledger card

## PROCESS

## SORTS

bill punched cards

## CHECKS

ledger card with billing statement/special services performed/insurance  
coverage/to see if bill is paid/charge slips

## Verifies

insurance coverage

## COMPUTES

insurance coverage

## TYPES

amount owed on statement/collection forms/patient's bill from computer card  
information/record card inserting patient name, date of appointment, reason  
for visit, charge, new balance

## Writes

receipt for paid services

## Attaches

form letter to billing statement

Inserts  
 statements in envelopes  
 Stamps  
 letters with postage meter  
 SORTS  
 mail for mailing

## DISPOSITION

FILES  
 patient record/statements in patient folders

MAILS  
 letters/statements to patients

DELIVERS  
 form letter and billing statement to supervisor/ledger cards, charge slips,  
 receipts to Accounting

HARDWARE

Typewriter  
 Files  
 Postage machine

SOFTWARE

Billing statements  
 Patient account  
 Charge slips  
 Receipt  
 Form letters

EDUCATIONAL CUES

Typing  
 Filing  
 Accuracy  
 Concentration  
 Computational skills

REPORTED CRITERIA: "Current record is kept for each patient so he will receive a correct monthly statement of his bill from the doctor; Knowledge of various types of hospitalization policies and coverages; Legible handwriting; Proofreading; If no ticket is written through oversight, there is no charge to patient because there is no record of visit"

11. GIVEN ACCOUNT CARDS, WITHDRAWAL-OF-FUNDS FORM, OR ORAL REQUEST, THE WORKER HANDLES PATIENT FUNDS. (4 task sheets)

Receives patient account cards/request form for withdrawal of funds/telephone inquiry

Adjusts posting machine for withdrawals

Pulls color coded account cards

Checks account card for social security number, sufficient funds, amount restricted

Writes payment authorization

Posts amounts on posting machine

Stamps approval on payment request

Delivers requests to Cashier/account information to caller

Returns card to file

12. GIVEN FINAL BILLS AND INSURANCE FORMS, THE WORKER HANDLES INSURANCE ARRANGEMENTS FOR WELFARE CLIENTS ON MEDICARE OR MEDICAID. (2 task sheets)

Receives final bills, insurance form

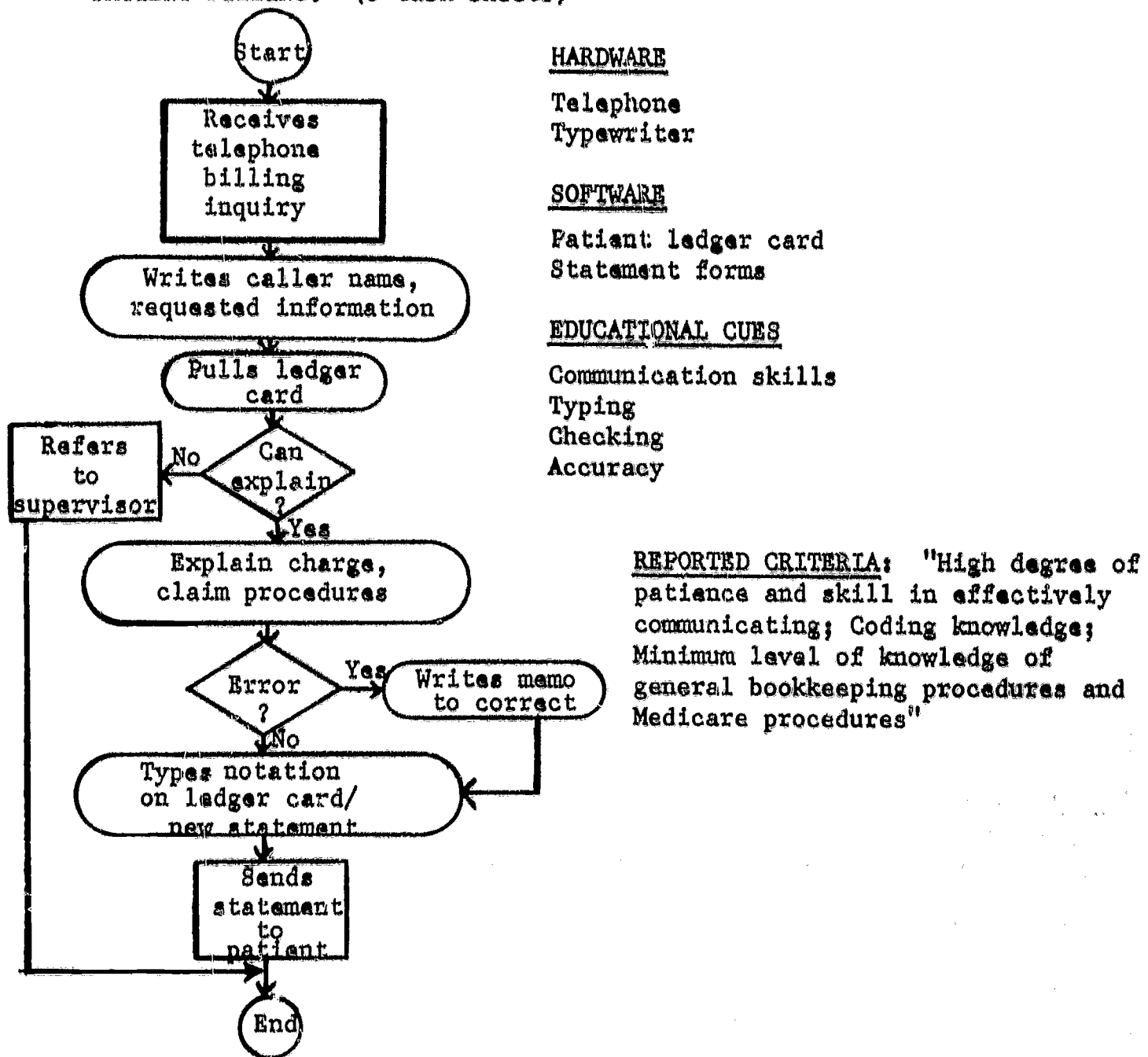
Calls patient

Requests card for service/social worker name/certification letter for



authorized service  
Calls social worker  
Inquires if hospitalization is approved or will be  
Informs social worker when patient is in hospital  
Receives card authorizing service  
Sends form to Billing/county Accounting supervisor

13. GIVEN A TELEPHONE BILLING INQUIRY, THE WORKER ANSWERS QUESTIONS REGARDING PATIENT BILLING. (3 task sheets)



14. GIVEN PUNCHED CARDS, INSURANCE FORMS, PATIENT ACCOUNTS, THE WORKER COMPUTES AND RECORDS INSURANCE AMOUNTS, AND REQUESTS REIMBURSEMENT FOR MEDICAL CHARGES. (15 task sheets)

## ACQUISITION

## RECEIVES

punched cards from Data Processing/insurance forms/completed insurance forms/  
dismissed patient account/Medicare verification/accounts receivable cards/  
billing forms

## PROCESS

## Pulls

patient's chart or file/account or ledger card

## Writes

room number on punched card

## SORTS

punched cards by room number/forms for mailing/ledger, account cards

## Stamps

chart requesting information

## CHECKS

charts for completion/to whom form should go for completion/that all bills  
are on ledger card/patient account for hospital charges/patient eligibility  
for Medicaid, Medicare/diagnosis name/previous insurance form/lab work/  
previous hospitalizing/amounts due

## COMPUTES

extension/discount/deductions/total reimbursement/charges

## TYPES

record of charges on Medicare form/non-medical information from chart to  
insurance form/insurance information on ledger card/medical diagnosis/  
late charges/type of room/work sheet information on Medicare form/reimburse-  
ment form

## Writes

date claim form sent/"completed" on punched card/insurance information on  
patient folder/charges on work sheet/information from Medicare form on  
auditors log sheet

## Verifies

doctor's signature/insurance release signed by patients/bill totals/amounts  
listed

## RECORDS

patient name, chart number, doctor, type of form/to whom form sent/Medicare  
form information--date statement sent, to whom sent, medical services,  
charges/Medicare payment in log

## Attaches

overdue notice to statement

## Obtains

patient, doctor's signature on Medicare form

## DISPOSITION

## Sends

completed insurance forms to Reimbursement/overdue bill to credit manager

## FILES

patient folders/Medicare forms and folders

## MAILS

insurance forms/forms to Medicare/statement

## DELIVERS

punched cards to Data Processing/insurance form to doctor for completion/  
check and adding machine tapes to Cashier

HARDWARE

Typewriter  
Files  
Adding machine (10-key)

SOFTWARE

Patient accounts  
Punched cards  
Medicare book

EDUCATIONAL CUES

Accuracy  
Checking  
Typing  
Filing  
Computational skills

REPORTED CRITERIA: "Book must be current and complete; Moderate level of reading skill, interpreting forms; Check typing and amounts carefully; Computation must be correct; General knowledge of Medicare, Medicaid restrictions; No complaints; Must know coding, names of medical treatments; Correct diagnosis name"

15. GIVEN ADMITTING AUTHORIZATION ID CARD FOR EIGHT-DAY HOSPITAL STAY PERIOD, THE WORKER OBTAINS EXTENSIONS ON ID CARDS ON THE SEVENTH DAY. (1 task sheet)

Receives lists of day's admissions

Checks if patient is still in hospital on seventh day

Calls Cashier for notice of discharge

Calls hospital floor for report on condition of patient and doctor's orders

Calls doctor for possible discharge date

Calls patient advising him to contact medical consultant

Calls medical consultant to inform him name of patient, admission date, number, diagnosis, doctor's name, address and telephone

Calls admitting doctor to justify continuation of hospitalization

Checks further extensions required with doctor

16. GIVEN CARDS ON STUDENT NURSES, THE WORKER REQUESTS STUDENT NURSES MAKE ARRANGEMENTS FOR HEALTH EXAMINATION APPOINTMENTS. (1 task sheet)

Receives cards on student nurses

Informs student nurses to make appointment for health examination

Checks appointment sheet

Arranges health examination appointment

Mails reminder of health examination

Delivers report to nurses, Admissions Office on students ignoring summons for examination

17. GIVEN PRE-EMPLOYMENT HOSPITAL REGISTRATION FORMS AND NEW EMPLOYEE, THE WORKER PROCESSES NEW EMPLOYEE REGISTRATION AND PERSONNEL FORMS. (1 task sheet)

Receives pre-employment registration form/new employee

Requests employee complete necessary employment forms

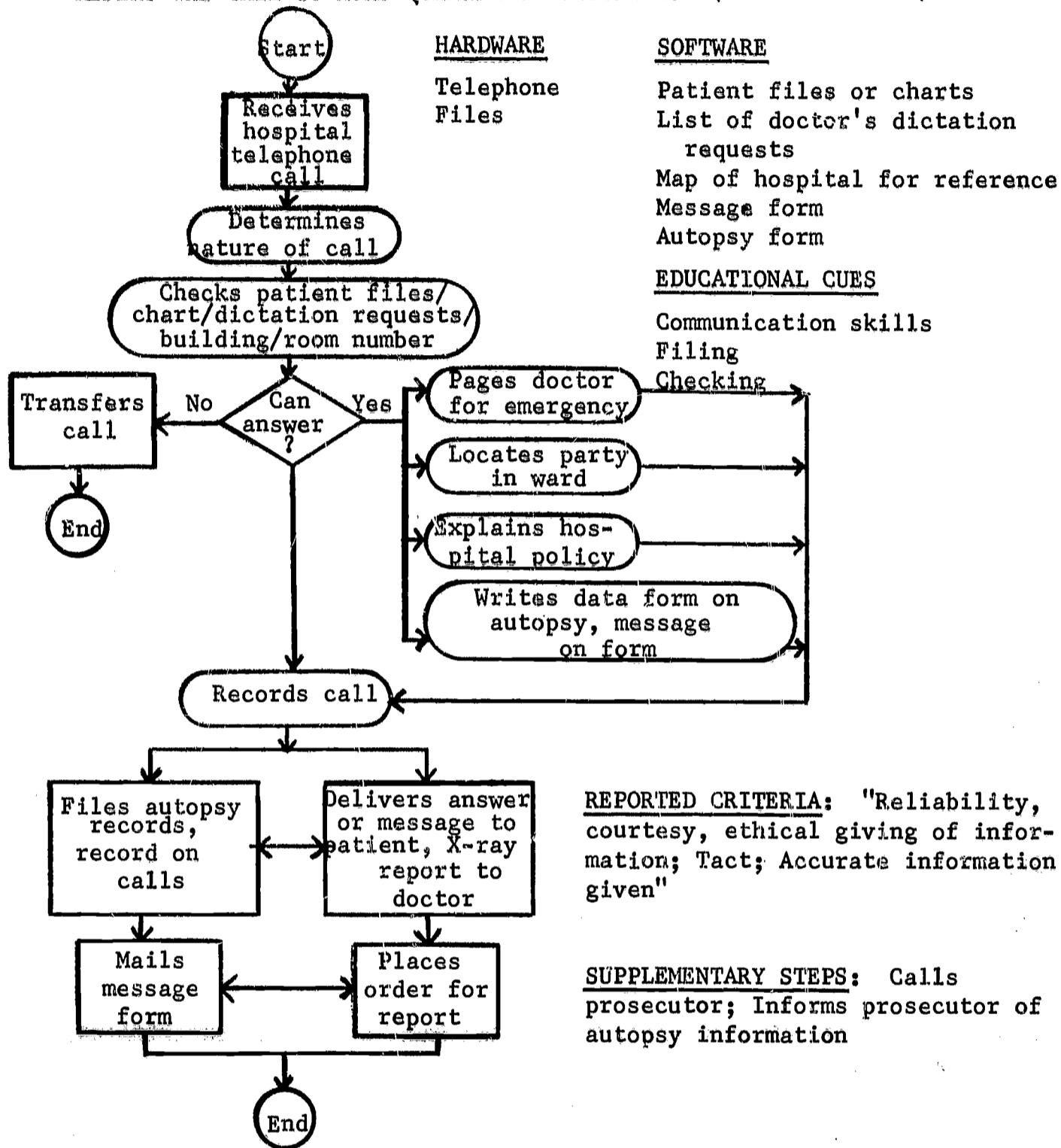
Writes new employee personal data on data sheet

Types additional personnel forms

Records name, date, department in new employee's record book

Files employee folder

18. GIVEN INCOMING HOSPITAL TELEPHONE CALLS, THE WORKER ANSWERS QUESTIONS OR REFERS THE CALL TO MORE QUALIFIED PERSONNEL. (16 task sheet)



19. GIVEN PERSONNEL LISTINGS AND MASTER SALARY SCHEDULE, THE WORKER RECORDS PAYROLL CHANGES FOR HOSPITAL EMPLOYEES. (2 task sheets)

- Receives personnel listing of salary increases/master salary schedule
- Checks for salary changes/correct job classification
- Pulls employee personnel file
- Records salary change on personnel records/revision date at top on master salary schedule
- Completes salary form for each change
- Places salary form in interoffice mail



Attaches increase memo to salary schedule for verification of change  
Files employee file

20. GIVEN NEW HOSPITAL EMPLOYEES, THE WORKER PRESENTS AN ORIENTATION PROGRAM.  
 (1 task sheet)

Arranges conference room/movie projector  
Directs new employees to seats  
Explains policies of hospital  
Shows movie of hospital history  
Answers employee's questions  
Distributes personnel forms for completion  
Collects completed forms  
Dismisses employees  
Rewinds film  
Checks forms returned for completion  
Places forms in each employee's record file

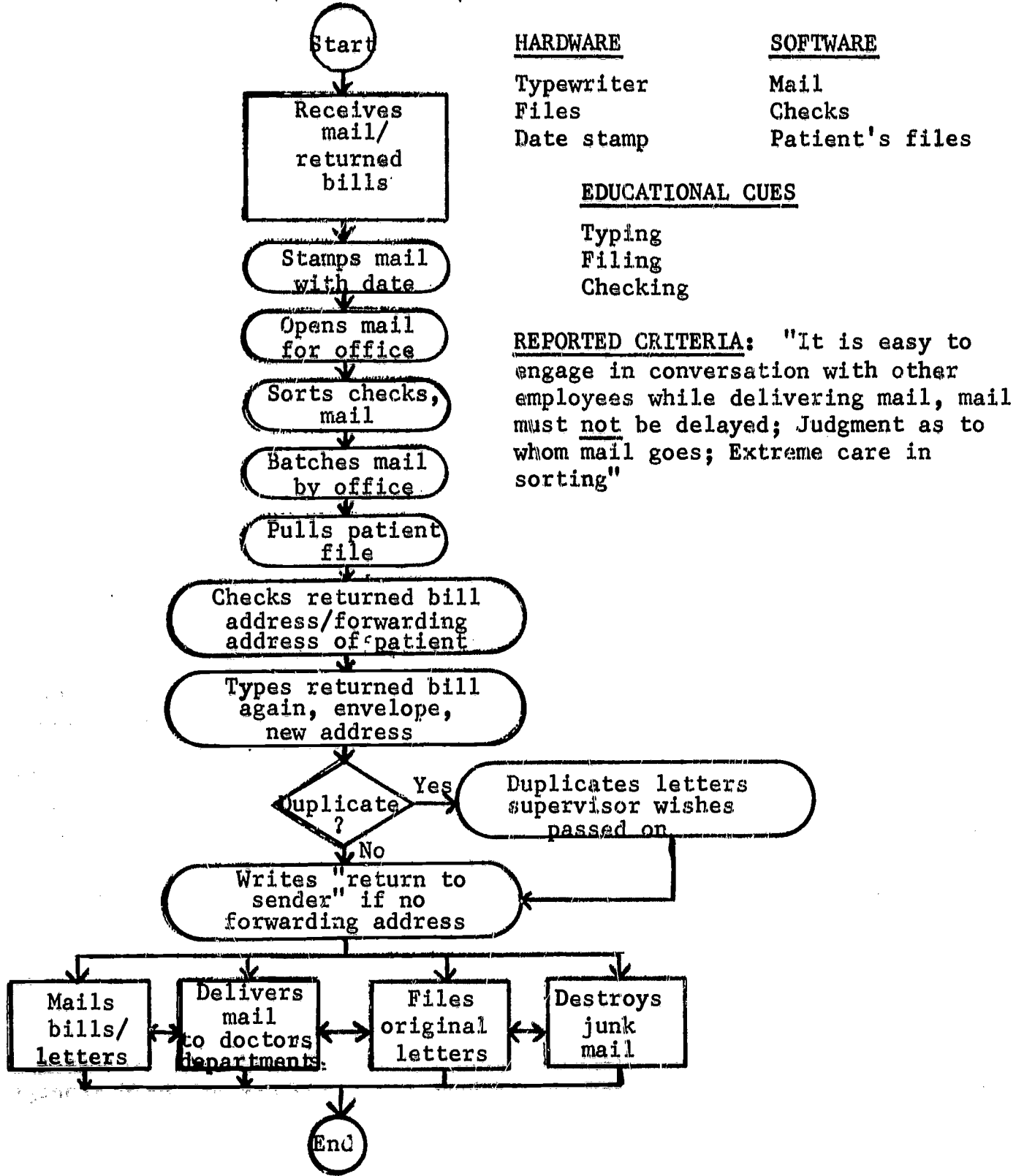
21. GIVEN PATIENT RECORDS, THE WORKER PROCESSES FOLLOW-UP RECORDS OF  
 PATIENT'S VISIT. (1 task sheet)

Obtains patient chart and therapy report sheets  
Types therapy sheet information  
Proofreads therapy sheet  
Stamps doctor's signature  
Files therapy sheet in patient's file  
Sends copy of therapy sheet to state mental hospital and health department  
Obtains fee card record notebook  
Records patient's name, date, number, amount of time with doctor in fee  
 record book  
Types patient's name, date, hospital number, code for fee on fee card  
Sends fee card to Data Processing  
Writes information on patient's statistical card  
Files statistical card and patient's chart

22. GIVEN DELIVERY ROOM RECORDS, THE WORKER PREPARES BIRTH CERTIFICATES.  
 (1 task sheet)

Obtains names of mothers and room numbers  
Records names of mothers, hospital number, doctor, date and time of birth,  
 sex in record book  
Delivers birth certificate form to mother for completion  
Obtains birth certificate forms  
Records length, weight of babies in weight record book  
Stars in red, weight of premature babies  
Types birth certificate form  
Obtains birth certificate form approval and signature from mother  
Sends birth certificate form copy to Medical Records when notified baby has  
 gone home/original birth certificate to county office weekly

23. GIVEN MAIL, THE WORKER SORTS, ANSWERS, AND DISTRIBUTES MAIL THROUGHOUT THE HOSPITAL. (9 task sheets)



24. GIVEN ORAL INSTRUCTIONS, REPORTS, AND LEDGER SHEETS, THE WORKER TYPES AND FILES MEDICAL LETTERS, FORMS, ARTICLES, AND REPORTS. (38 task sheets)

ACQUISITION

RECEIVES

oral instructions to write letter to patient/master appointment schedule/ estimate book/patient folders, ledger cards, diagnosis/death notice/dictated

belt/status form changes/articles for weekly bulletin/forms or reports to be duplicated/handwritten copy of letter/daily reports/discharged patient's cards/statistical tables from schools, clinics, other hospitals/admission sheet/daily census report/statistical report of number of patients in hospital/printouts/request for reprint of doctor's article/ledger sheets of out-patients

Obtains

doctor's duty list for weekly hospital bulletin/patient address

#### PROCESS

Pulls

patient's ledger card/Medicare record/address cards of discharged or transferred patients

Writes

instructions/patient's address/date on charts/cancer treatment (radium, cobalt)

Corrects

rough drafts, revises (if necessary)

COMPOSES

letter to patient

COMPUTES

number of males and females in medicine, surgery, obstetrics, pediatrics, newborn/number discharged and admitted patients for month/all amounts on statistical tables/number premature, Caesarean births

TYPES

letters/appointment card/appointment schedule/new estimate book/statement, cost of medical treatment/deceased patient's card/dictated treatment records/new status form/operative report/balance sheet/medical report, physician's report/history report, surgery report, discharge summary, consultation report/dummy copy of doctor's duty list, notices from Personnel, Administration offices/stencil of weekly bulletin forms, reports/dictated materials/memos/form letters regarding billing/alphabetical listing of discharged patients/cancer registry/admissions reports/discharge reports/one-day patient report/daily movement report/article for bulletin/drug recap

Proofreads

all typewritten materials

Codes

status cards/cancer registry according to location of cancer

CHECKS

schedule for changes/card file/name spelling/medications/for enclosures/for computational errors/weight record book for premature babies/discharge sheet

DUPLICATES

status form or report/forms, reports, bulletins/discharged patient list

RECORDS

cancer information in medical record book/number premature, Caesarean births on census form/number discharges

Obtains

signature of doctor on report/approval of reports from doctor

Attaches

appointment card to letter/deceased card to ledger card/dummy list to pasteup/signed original report to patient's charts

**Writes**

doctor's name on letter/number minutes required to transcribe/name, date, drug, price on ledger sheet

**DISPOSITION****DELIVERS**

information to Hospital Administration

**Sends**

cancer registry to State Department of Health/statistical reports to senior clerk for checking/census form to supervisor/original operative reports to Medical Records, copy to surgeon/copy of all reports to doctor/duplicated forms or reports to requesting departments

**MAILS**

statement to probate court by hearing date/status form copies to Mental Health Service/doctor's articles/form letter to probate court requesting date for filing claims against estate/letters/estimate book copies to various departments/medical statement/form letter to administrator, executor of estate requesting payment

**Distributes**

copies of master appointment schedule to doctors, nurses, lab, receptionist/memos to staff/discharged patient list

**FILES**

copy of all reports/discharged patient list/patient's folder, ledger card/deceased patient card/operative report

**Places**

printouts in binder book

**HARDWARE**

Typewriter  
Adding machine (10-key)  
Files

**SOFTWARE**

Patient's files  
Medical documents  
Coding manuals  
Stencils

**EDUCATIONAL CUES**

Checking  
Typing  
Proofreading  
Accuracy  
Filing  
Computational skills

**REPORTED CRITERIA:** "Ability to check own work and that of others; Correct coding of status; Medical terminology essential; Proofreading very important; Ability to compose a letter given brief description of content; Deadlines for reporting medical information met; All wording correct; Willingness to work overtime to complete work; Accounting for all drugs used"

**MEDICAL CRITICAL INCIDENTS**

"The worker that held the job immediately before this worker could not handle the pressure. A research proposal had to be in to meet a deadline, and the worker went to pieces over it. We had to hire a worker to complete it."

"The worker received a telephone request for five charts (records) from a nurse on the staff at a time when the worker was rushed. In her haste to complete her work and leave for an afternoon off, she neglected to make a record of the request. After she had left for the day, the nurse called to find out why the records had not been sent down."



MEDICAL CRITICAL INCIDENTS

"About two years ago the worker overlooked results of an eye examination for an executive of a local bank. Because of this failure, the bank almost withdrew the account from the clinic. It was only after considerable consultation that the account remained with the clinic. This loss would have resulted in the clinic losing thousands of dollars."

"On a Friday evening one resident suddenly remembered a report that had to be in the next day. He rushed to the hospital and found the worker sitting at her desk typing the report. She also had remembered the report that evening. She did not want the doctor to get in trouble for not having the report in and felt it was up to her to see that it was in."

"One upset mother called the hospital when her child had been injured. It was impossible to understand what the problem was, but the employee had the presence of mind to ask the address saying that someone would come immediately."

"In the billing operation it is necessary to send follow-up collection letters. The worker did not pick up the recent payment on the patient's card and sent out the final-notice letter. The patient called the hospital, as he was extremely upset. The worker pulled the patient's file, apologized for her mistake, and retained the goodwill of the patient."

"The worker must open the mail and retain the checks that arrive in payment of hospital bills. She noticed that one check coming in had the numerical amount crossed out and changed. She called the bank and found that they would not accept this check so she returned it to the patient with a note, thereby saving everyone's time."

"The worker made a suggestion concerning the procedures involved with a refund to a patient. The idea was for a revision in the form being used to show that the account had been researched and by whom. The worker also recommended a form letter to be used. The suggestions have been incorporated into our overall hospital procedure."

"Recently there was a pending strike by the attendants at the hospital. The worker had a lot of photocopying to do for the director of the hospital in connection with the strike. She was quite willing to spend the extra hours to help at this crucial time."

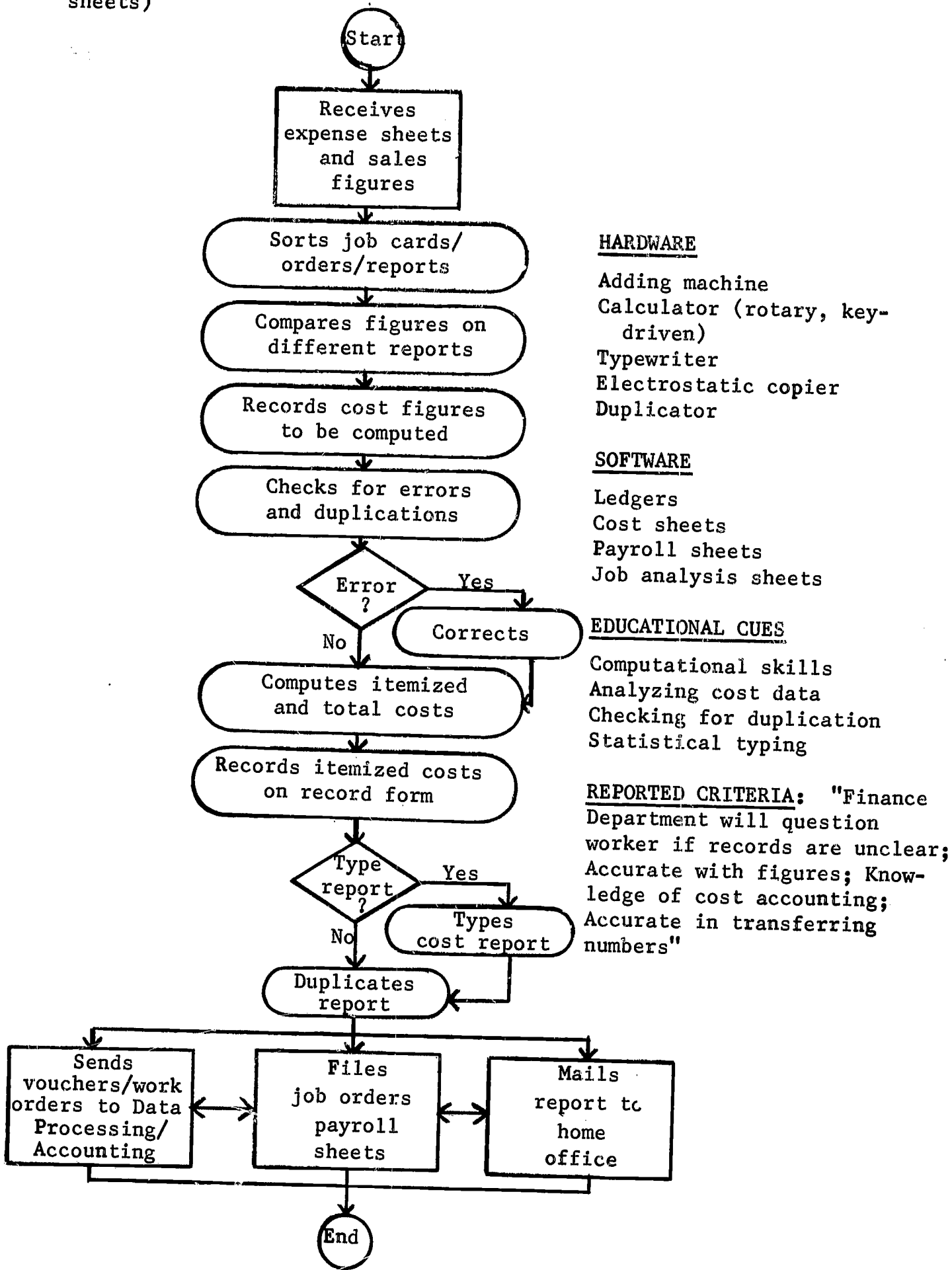
"On the birth certificate there is legal information required from the doctor which the worker is assigned to get. The worker has failed to get information regarding abnormal births because she does not feel this information is important."

"When a particular doctor is behind on his dictation of surgical reports, the worker will call him and tactfully remind him of this. The doctor has mentioned that he appreciated the manner in which the worker reminded him of his dictation backlog and feels she is interested in helping him with a responsibility in which he tends to lag."

**F. PERFORMANCE GOALS BY FUNCTIONS**

1.1 ACCOUNTING, COST ACCOUNTING

1. GIVEN EXPENSE SHEETS AND/OR TOTAL SALES FIGURES, THE WORKER COMPUTES AND ALLOCATES UNIT COSTS TO JOBS AND SALES/PRODUCTION ESTIMATES. (33 task sheets)



## ACQUISITION

## RECEIVES

(Administrative Costs)  
 management expense reports  
 (Electronic Data Processing Costs)  
 sheet listing customers time use of computer/total monthly sales sheet  
 (Depletion Costs)  
 asset distribution sheet  
 (Production Costs)  
 job completed reports/daily inspection reports/laboratory reports/assembly  
 reports/work order cards, workers names, materials used/suppliers bills/  
 production and labor cost computations/open orders (parts not shipped)/  
 cutting records (fur pelts)

## PROCESS

## SORTS

inspection reports and job cards by function/worker/job/department/job  
 orders by unit numbers

## COMPARES

job sheet labor totals with time card labor totals/sales figures from  
 company branches

## RECORDS

postage used daily by each department/gas used daily/cost of production of  
 fur pelts/all production costs in ledger/allocation of management costs to  
 departments by set percentages/cost of production on invoices of goods  
 sold to company branches

## CHECKS

projected expenditures/last year's expenditures/for errors and duplication  
 of entries

## COMPILES

records pertaining to postage, gas, telephone billing/job cost sheets from  
 suppliers' bills

## COMPUTES

necessary quantities of raw material to order by noting raw materials used/  
 difference between cost of pelts and sale of pelts/itemized costs of  
 production by total cost of production/computer time into dollar amounts/  
 cost of materials used/labor cost (total and each worker)/cost of each  
 product (unit cost)

## Adds

previous week's labor totals to present week's totals

## Totals

postage used by all departments/each department's telephone charges/all  
 expenses/year-to-date amounts of expenses

## RECORDS

on tally sheet (cost sheet) by name, code, job number, time spent/gain or  
 loss in sale of pelts/production and cost figures on summary form

## Writes

computer time dollar amounts on customer record cards/list of component  
 parts of product as computer input/amount of time actually used in pro-  
 duction by estimated time

## TYPES

computer time service voucher/monthly report/cost figures on daily report/  
 cost on card for job to which bill applies



## DUPLICATES

cost analysis report

## DISPOSITION

## Sends

computer time service vouchers to Accounting/work order breakdown to Data Processing/invoices to Billing

## FILES

job orders numerically/requisitions, payroll sheets, supply forms, invoices/cutting records (fur pelts) by style number

## MAILS

original report to home office monthly

SUPPLEMENTARY STEP: Keeps extra copy of job order when accident involved

2. GIVEN ACTUAL AND STANDARD COST FIGURES, THE WORKER COMPUTES VARIANCE REPORTS. (7 task sheets)

Obtains last month's variance report

Receives accounting inventory sheets/computer printouts of cost changes/trial balance

Records present figures (variable and fixed overhead, direct and indirect labor, packaging)

Subtracts actual cost from standard cost to get current variances

Records computed variances by department into spending, capacity, and efficiency

Computes year-to-date variances

Checks all entries

Delivers variance sheet copies to another worker for checking/to Duplicating/supervisor/company offices

3. GIVEN COMPONENT-PARTS LIST AND PRODUCTION-COST-ESTIMATE REQUEST, THE WORKER PREPARES/HELPS PREPARE BIDS AND ESTIMATES OF COSTS OF PRODUCTS AND SERVICES. (12 task sheets)

Receives request to estimate TV spot advertising/estimates of job costs/engineer's change-product notices

Receives list of all parts needed in producing a product/blueprints

Determines labor standard costs/changes occurring in product/hidden costs

Checks cost guidebooks/engineer's specifications

Computes all estimates and standard-cost breakdowns

Types statistical cost breakdowns

Sends computations to engineers/client/chief engineer/estimator

Receives copy of bid/estimate/contract to be negotiated

Records approval or disapproval of contract figures

Sends final noted contract figures to company offices/supervisor/Data Processing

Files bids/estimates/contract copies

REPORTED CRITERIA: "Two day maximum in processing bids; Great accuracy and memory required; Awareness of each part in total construction picture; Errors could cause great company financial loss"

4. GIVEN THE RESPONSIBILITY OF COMPUTING THE COST ANALYSIS OF PRODUCTION OR OF A PIECE OF MACHINERY, THE WORKER PERSONALLY OBSERVES PRODUCTION AND READS BLUEPRINTS TO DERIVE COST ESTIMATES. (2 task sheets)

Obtains job cost sheets (partially completed)  
Obtains machinery blueprints/purchase order forms  
Obtains cost information by observing men working  
Discusses job production with supervisors  
Writes job cost information  
Examines machinery blueprints  
Computes machinery total cost by each of its parts  
Delivers job cost information/machinery cost analysis to supervisor  
Files copy in own file

5. GIVEN THE RESPONSIBILITY OF FINDING WAYS TO IMPROVE PRESENT METHODS, THE WORKER COMPILES RELEVANT STATISTICS AND PLANS IMPROVEMENTS BY SUBMITTING COST ANALYSIS OF PROPOSED METHODS. (2 task sheets)

6. GIVEN ROUGH DRAFTS OF COST ANALYSIS REPORTS, THE WORKER TYPES COST REPORTS. (4 task sheets)

Receives cost analysis rough draft  
Determines best columnar set up for cost report  
Checks figures by computing all totals  
Types cost tables and explanations as to differences in actual and estimated costs  
Delivers report to Duplicating/Cost Analysis/Accounting

7. GIVEN CURRENT COST ANALYSIS AND ADDITION SPECIFICATIONS, THE WORKER SETS UP NEW ACCRUAL ACCOUNTS AND WRITES DESCRIPTIONS OF ACCOUNT CONTENTS. (2 task sheets)

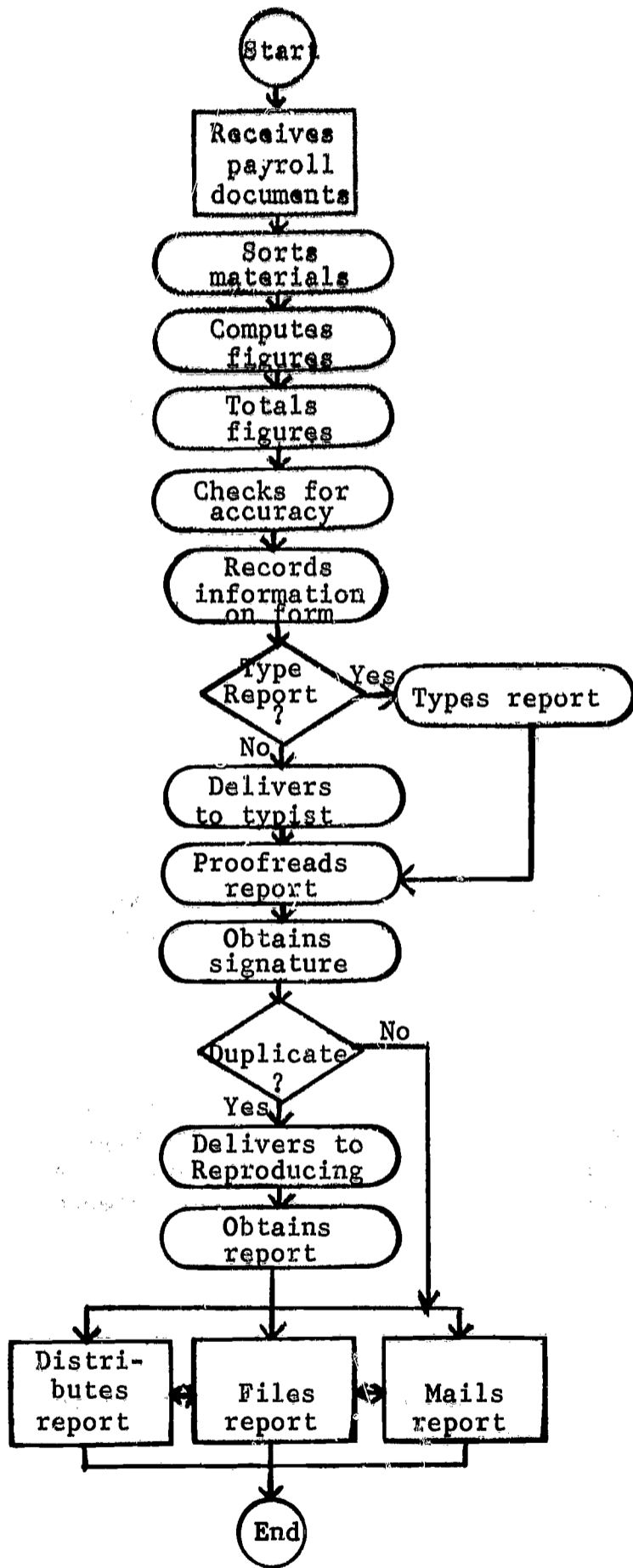
#### COST ACCOUNTING CRITICAL INCIDENTS

"The worker and another person made a cost study. She was able to direct and assist the person in developing details of costs, locations, and descriptions of inventory items so that an excellent report was produced. The worker is very capable in reconciling discrepancies discovered because of persistence needed to complete study."

"About two weeks ago the worker overlooked a credit and listed a wrong amount on the standard production cost sheet. This error indicated a manufacturing loss of \$30,000 that no one could account for. Consequently, the supervisor had to search until he found the worker's error."

1.2 ACCOUNTING, PAYROLL

1. GIVEN PAYROLL SHEETS, TIME SHEETS, JOB CARDS, PRINTOUTS, THE WORKER COMPILES PAYROLL REPORTS AND SUMMARIES. (15 task sheets)



ACQUISITION

RECEIVES

payroll sheets / time sheets / job cards / printouts necessary for preparation of reports

PROCESS

SORTS

materials received

COMPUTES

all figures / net profit and loss

Extends

salaries

Totals

all figures/weekly and monthly figures

CHECKS

all figures for accuracy/ manuals for information/form for errors

Verifies

all totals

Proofreads

report after it is typed

RECORDS

information on form for report or summary/absences on forms/ employee time spent per activity according to assigned code/differences on payroll analysis form

Writes

reasons for differences

DELIVERS

to typist for typing / to Reproduction for duplicating

TYPES

form listing employees on no-leave-left list / time sheets/ job cards / overtime, payroll sheets

Obtains

signature of supervisor/report reproductions

DISPOSITION

MAILS/FILES/Distributes payroll report

SUPPLEMENTARY STEP: Determines amount of difference between salaries budgeted and paid

REPORTED CRITERIA: "Coping with employees' errors in ladylike manner; Time pressures"

HARDWARE

Typewriter  
Electronic calculator  
Adding machine (10-key)

SOFTWARE

Manuals on rates  
Report forms  
Time sheets  
Payroll sheets  
Job cards  
Printouts

EDUCATIONAL CUES

Typing  
Coding  
Computational skills  
Accuracy  
Proofreading  
Checking

2. GIVEN PAYROLL INFORMATION, THE WORKER PREPARES A DUMMY PAYROLL. (1 task sheet)

Runs addressograph machine to print dummy payroll sheet  
Writes necessary changes on dummy sheet  
Refers to vacation schedule  
Draws circles around name of employee on vacation  
Delivers corrected dummy payroll to another employee

3. GIVEN INFORMATION, THE WORKER COMPUTES SALESMAN'S COMMISSION. (1 task sheet)

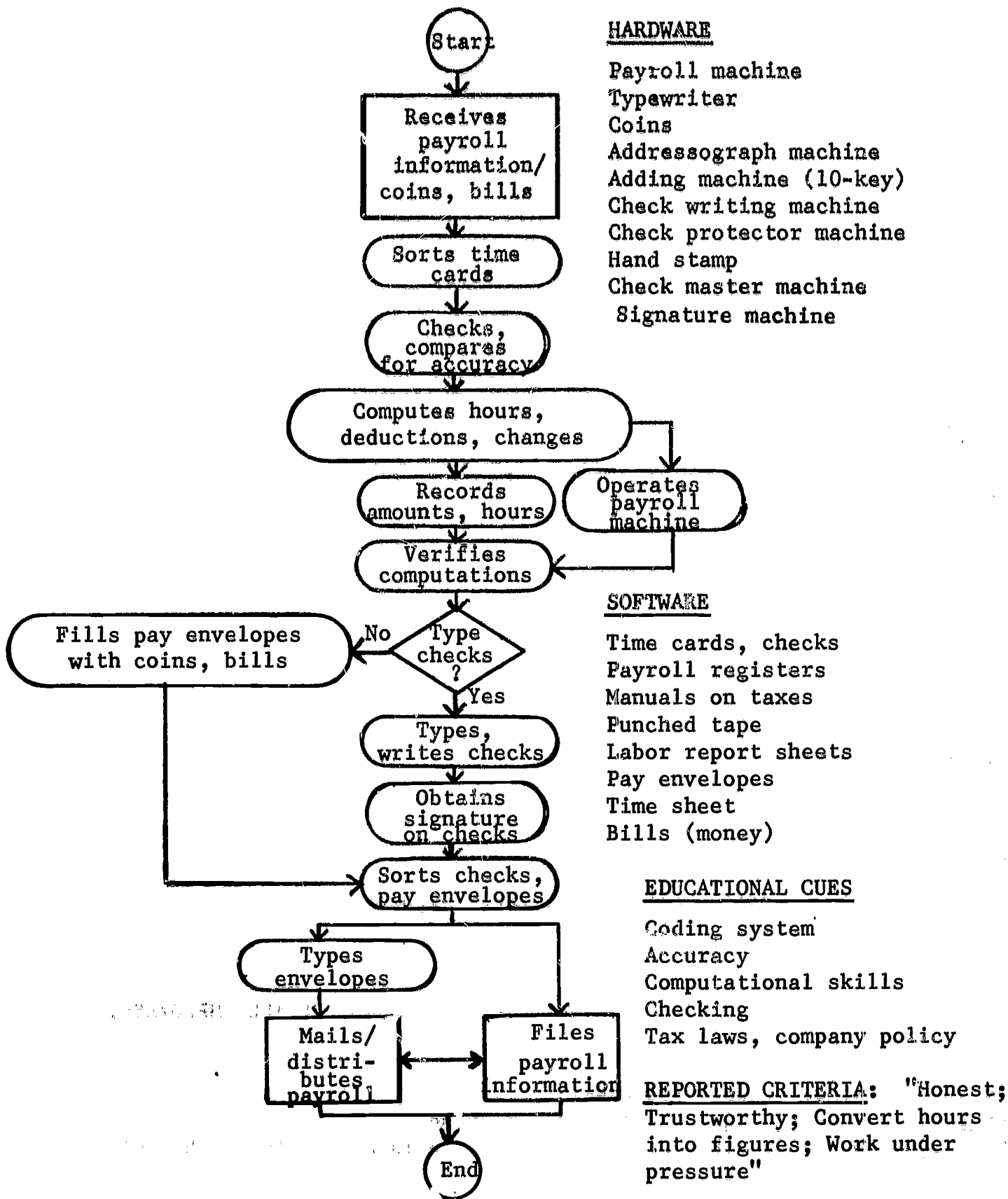
Receives short and over slips  
Sorts slips by driver (salesman)  
Totals with 10-key adding machine  
Computes commission earned by hand or bookkeeping machine  
Checks computations  
Records drivers' names and commissions on payroll sheet  
Types summary sheet  
Photocopies payroll sheet/summary sheet  
Delivers payroll sheet to another worker  
Files original payroll sheet/summary sheet alphabetically  
Mails summary sheet to distributor

4. GIVEN TIME CARDS, THE WORKER PREPARES TIME CARDS OF ALL EMPLOYEES. (1 task sheet)

Receives time cards from Personnel  
Runs time cards through addressograph machine  
Compares time cards with list to ensure there is a card for each employee  
Stamps date on time card  
Places card in rack by time clock



5. GIVEN PAYROLL INFORMATION, THE WORKER COMPUTES PAYROLL AND DISTRIBUTES PAYROLL CHECKS TO EMPLOYEES. (73 task sheets)



**SUPPLEMENTARY STEPS:** Delivers checks to bindery for cutting apart; Locates missing checks; Duplicates time sheet, payroll listing, labor report

## ACQUISITION

## RECEIVES

time cards /weekly payroll registers/ payroll information sheets  
 Obtains  
 copies of labor report sheets

## PROCESS

## SORTS

time cards according to job category, shift, or department/checks

## RECORDS

amounts and hours for each employee on labor report sheets or employee permanent record card

## Writes

date on adding machine tape

## Stamps

materials with date of pay period end /numbers on blank time cards

## CHECKS

information for accuracy/ manuals to aid in computation of deductions

## COMPUTES

hours worked by employees, deductions and changes i.e., taxes, sick leave, bonds, loan payments, holidays, vacation, incentive pay, etc.

## Extends

individual hours for special piecework.

## Runs tape

on all computations

## OPERATES

payroll machine / addressograph machine / check writing machine / check protector machine / check master machine / signature machine

## Codes

employee's hours by department

## Punches

tape on tape input machine for computer

## Verifies

computations

## TYPES

checks / time sheet / payroll listing / envelopes for checks

## RECEIVES

coins and bills to make up pay envelopes

## Obtains

signature on checks

## Fills

pay envelopes

## DISPOSITION

## MAILS

checks to employees

## Distributes

payroll checks to employees/cash or pay envelopes to employees

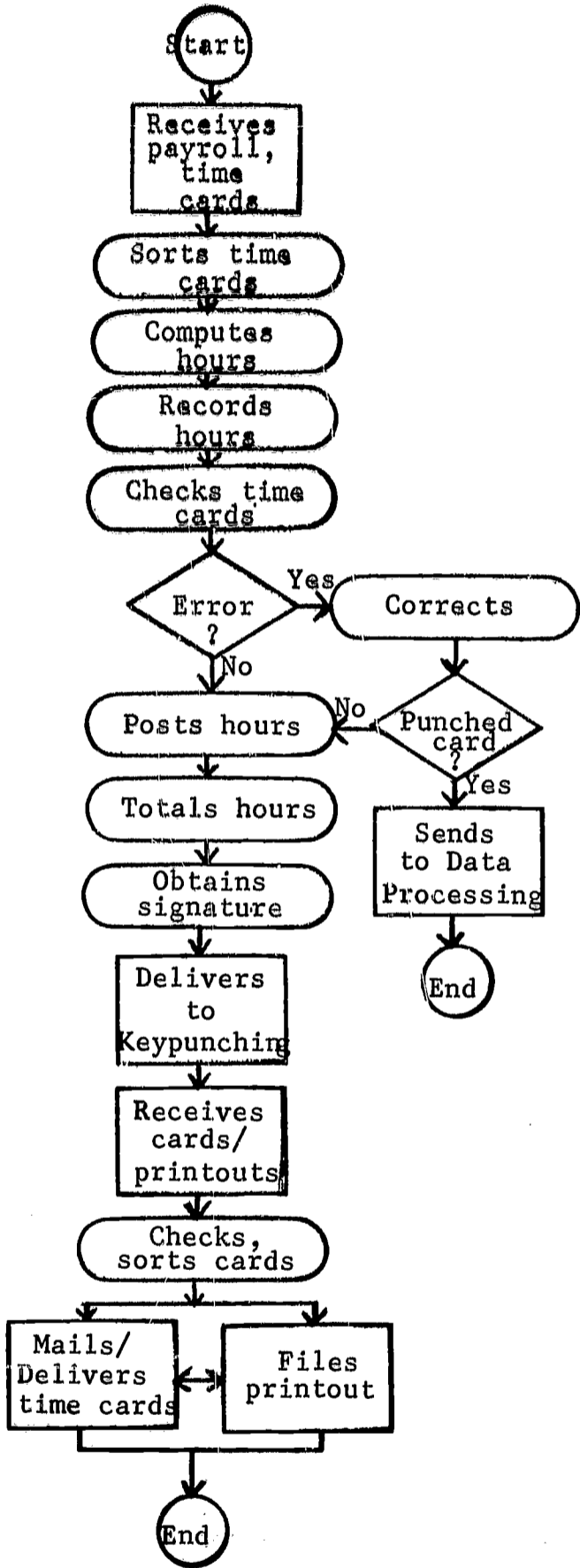
## FILES

payroll information

## Pulls

checks for special handling

6. GIVEN PAYROLL AND TIME CARDS, THE WORKER CHECKS AND POSTS INFORMATION PERTAINING TO PAYROLL. (27 task sheets)



ACQUISITION

RECEIVES  
payroll and time cards from employees

PROCESS

SORTS  
time cards

COMPUTES  
hours for each craft / total time at the end of the month

RECORDS  
hours worked by each employee / code number on time sheet for each employee

Stamps  
date on card

Posts  
hours to ledger cards / amounts to ledger cards

CHECKS  
completion of cards / printouts against time card information / for signature of employer and temporary worker / for correctness of error / for balanced totals of time cards

Corrects  
errors missed in audit

RECEIVES  
cards from Keypunching / printouts from Data Processing

Obtains  
signatures of employee and supervisor

DISPOSITION

DELIVERS  
cards to Keypunching / Data Processing / file clerks / batches of cards to plants / corrected cards back to Data Processing

Distributes  
cards to clerk handling that unit

MAILS  
cards

FILES  
printouts

SUPPLEMENTARY STEPS: Binds cards by department with rubberband; Completes supervisor's and her own time sheet; Notes whether job will continue or worker is available for another job; Batches time sheets; Delivers new time sheets to each employee

REPORTED CRITERIA: "Ability to work under pressure; Proofreading; Knowledge of criteria for sorting batches for computer; Accuracy in dealing with numbers"

HARDWARE

Adding machine (10-key)  
Hand stamp

SOFTWARE

Payroll, time cards  
Ledger cards  
Printouts

EDUCATIONAL CUES

Batching  
Coding  
Accuracy

7. GIVEN TIME CARDS, THE WORKER FILES AND UPDATES WEEKLY PAYROLL TIME CARDS. (1 task sheet)

Stamps with plate stamping machine / the time card, using ID plate  
Writes week ending date on time card  
Files payroll time cards alphabetically by name  
Removes previous week's employee payroll time card from files  
Delivers payroll time cards to another worker

8. GIVEN WEEKLY ACTIVITY TICKETS, THE WORKER MAINTAINS RECORDS OF TIME SPENT DEVELOPING NEW PRODUCTS. (1 task sheet)

Receives weekly activity tickets  
Checks for errors  
Delivers to Key punching  
Records time spent on each new product project in log  
Files computer listing

9. GIVEN ORAL INFORMATION, THE WORKER PROCESSES STATUS TIME SLIPS. (1 task sheet)

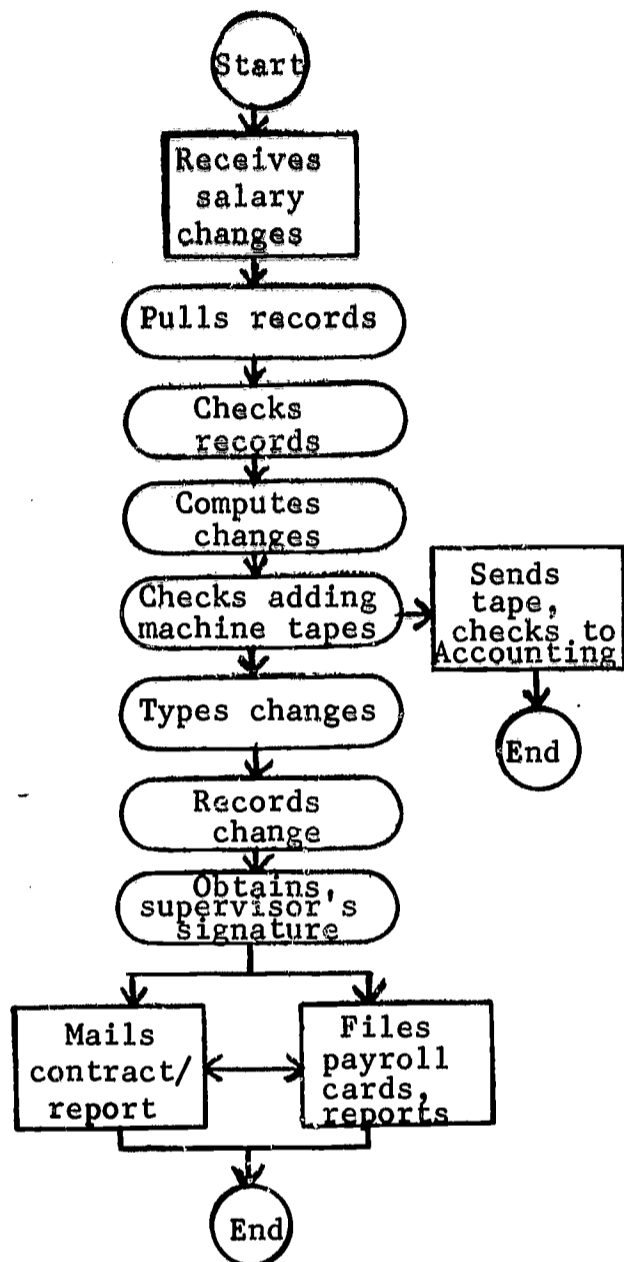
Receives oral information  
Types employee data  
Mails time slip to board for certification  
Checks returned time slips for verification  
Files certified time slip

10. GIVEN OUTPUT CARDS, THE WORKER COMPILES AN EMPLOYEE TRANSFER LIST. (1 task sheet)

Receives output cards  
Punches (keysorts) job, department, code numbers on output cards  
Sorts cards  
Removes cards of transferred employees  
Compiles transfer list from output cards  
Delivers transfer list to another worker



11. GIVEN SALARY MODIFICATIONS, THE WORKER COMPUTES PAYROLL CHANGES. (15 task sheets)



HARDWARE

Typewriter  
Adding machine (10-key)  
Files

SOFTWARE

Salary, policy manuals  
Union contracts  
Time reports, work sheet  
Payroll cards, code sheets  
Overtime sheets  
Doctor's excuse

REPORTED CRITERIA: "Demonstrates ability to compute loss of time into money; Interpret union policy; Follow directions; Code"

ACQUISITION

RECEIVES  
salary changes oral or written  
Pulls  
records

PROCESS

CHECKS  
records/adding machine tapes/sick leave remaining/listing to locate employees due salary increases/salary and policy manual/union contract for amount of increase/time against payroll card

COMPUTES  
base disability amount to daily rate/changes on adding machine

Counts  
days absent

TYPES  
changes on forms

RECORDS  
change on card / days absent

Codes  
salary adjustment

Obtains  
supervisor's signature and approval of changes/verification of code sheet

DISPOSITION

Sends  
adding machine tapes and changes to Accounting

MAILS  
originals to company office

FILES  
cards and report/doctor's excuse

SUPPLEMENTARY STEPS: Compiles worksheet with employees name and data; Photocopies overtime sheets

EDUCATIONAL CUES

Statistical typing  
Accuracy  
Salary, policy manuals  
Proofreading  
Filing  
Coding

PAYROLL CRITICAL INCIDENTS

"Once or twice her monthly tally of time sheets did not balance. This caused a great deal of recalculation along with taking time away from the Attendance Clerk who needed to search for the error along with her. This incident was probably the result of a posting error made because of the factor of tedium which enters in while doing many hours of posting figures."

"On a rare occasion, errors in pay rate have caused differences between the computer records and worker's records. Last month in setting up the computer, the accounting department found that an error had been recorded by the worker on the pay rate sheet. She had to recheck the social security number and the pay rate for three or four people to straighten out the error. The error occurred because she had not checked her pay rate change records carefully."

"An error in payroll rates can upset other employees and entire payroll amounts. One particular day when this employee was upset about a personal problem, he made such an error. In order to correct the error, much time was involved in discussions with foremen, computer staff, etc. These instances are rare and the employee was even more upset by his error."

"One time she sorted the time cards by the wrong department and one person did not get his check on time."

"The labor job classification deals with eight digit number; each digit standing for a different part of the job. The worker must be familiar with the entire job to know what all the digits mean. He once wrote the wrong classification on a batch of time cards because he did not understand the job."

"Last week the worker misplaced a packet of time cards from the Billing and Cable Department. After searching through all the cards for three days, he found the cards in the bin for cards that had already been paid. This carelessness caused the worker to have to ignore his normal duties to find the misplaced cards."

"One of the employees who had been injured returned to work and was still receiving workman's compensation checks. The worker forgot to notify the compensation attorney that the man had returned to work."

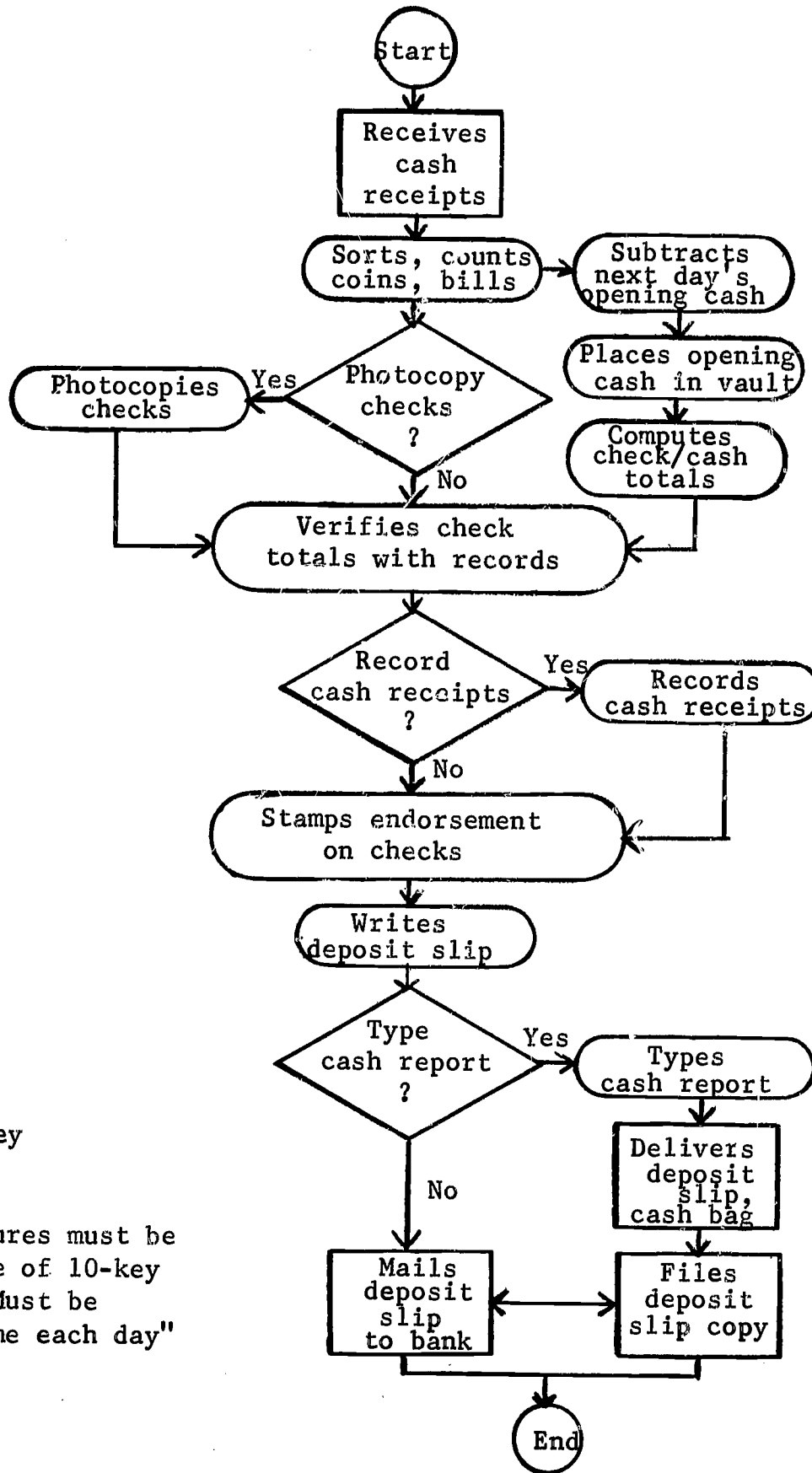
"A worker did not turn in his weekly payroll time card. Our worker assumed that the worker was no longer with the company; therefore, she didn't follow up to get the missing time card."

"In her willingness to be helpful, she didn't stop to think what she was really doing or the consequences for doing it when she gave payroll information to people she wasn't supposed to during our negotiations with the union."

"A special investigator requested that someone be assigned to help him in checking payroll books that date back as far as five years. The worker received a commendation from him for being so helpful and cooperative."

1.3 ACCOUNTING, RECEIPTS

1. GIVEN CASH RECEIPTS, THE WORKER PREPARES THE BANK DEPOSIT. (27 task sheets)



HARDWARE

- Coins
- Adding machine
- Coin machine
- Coin wrapping machine
- Typewriter
- Calculator
- Photocopy machine
- Endorsement stamp

SOFTWARE

- Checks and bills
- Deposit slips
- Invoices
- Cash receipts journal
- Bank money bag

EDUCATIONAL CUES

- Computational skills
- Accuracy in handling money
- Typing

REPORTED CRITERIA: "Figures must be accurate; Accuracy in use of 10-key adding machine; Honest; Must be completed at specific time each day"

## ACQUISITION

## RECEIVES

cash and checks/employee deposit slips/money sheets

## PROCESS

## SORTS

(and wraps) coins by denomination on coin machine/checks into alphabetical order

## Counts

cash

## Subtracts

money needed to carry on following day's business

## Photocopies

checks

## CHECKS

checks to make sure they are signed and endorsed properly/bank reconciliation

## Verifies

totals of checks with totals in cash receipts journal/with total of paid invoices

## Pulls

unpaid invoices

## RECORDS

cash and checks in cash receipts journal/cash record book/balance sheet

## Writes

bank deposit slip/cash total on bank bag slip

## Stamps

checks with rubber endorsement stamp/date on invoices when payment received

## TYPES

cash report indicating amount of cash and checks received

## COMPUTES

totals of columns in cash receipts journal/totals of checks/totals of invoices paid

## DISPOSITION

## DELIVERS

deposit to bank/co-worker

## Places

deposit in bank bag for pick-up by messenger boy/money for next day in cash drawer in vault

## MAILS

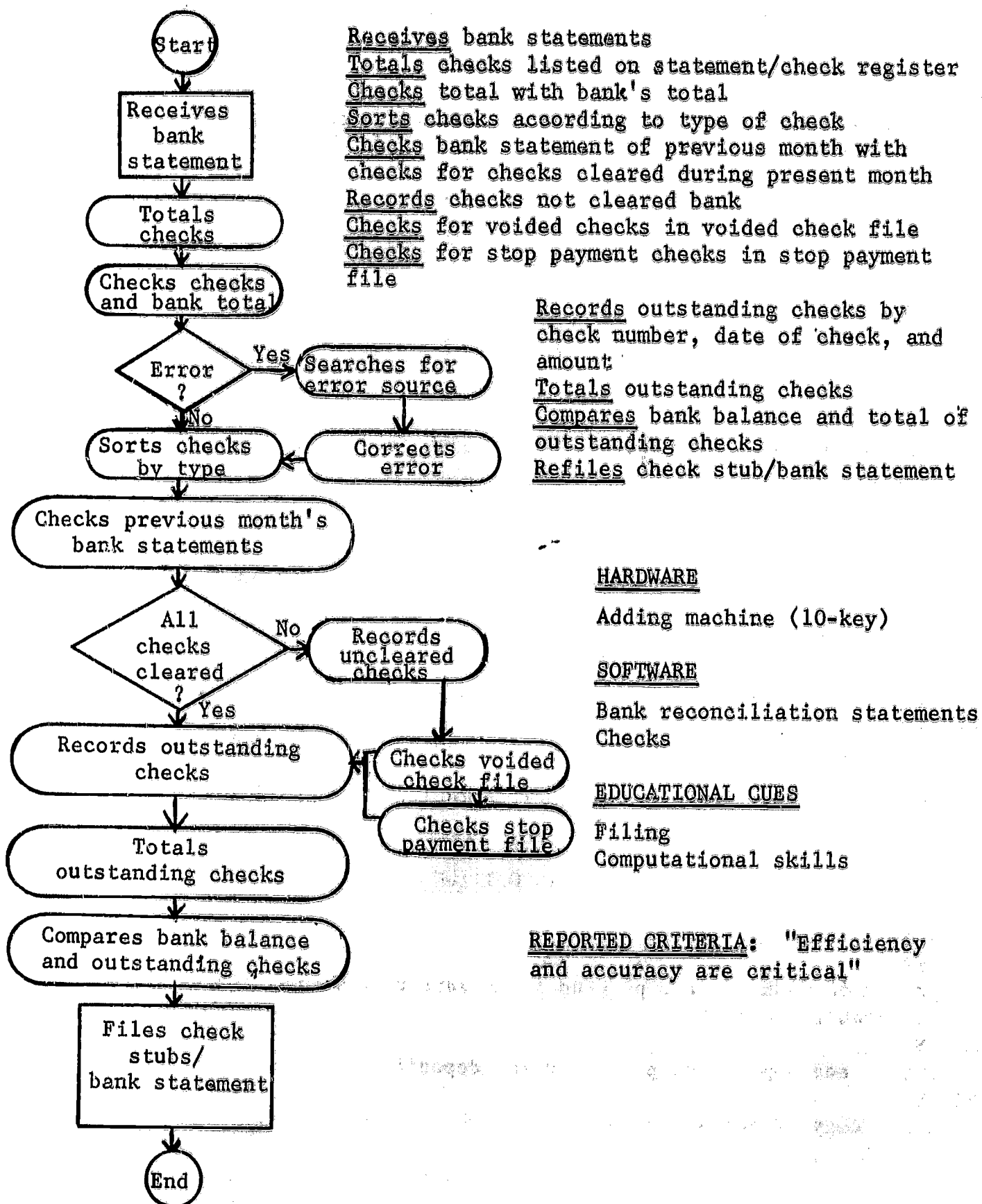
deposit and deposit slip to bank for deposit

## FILES

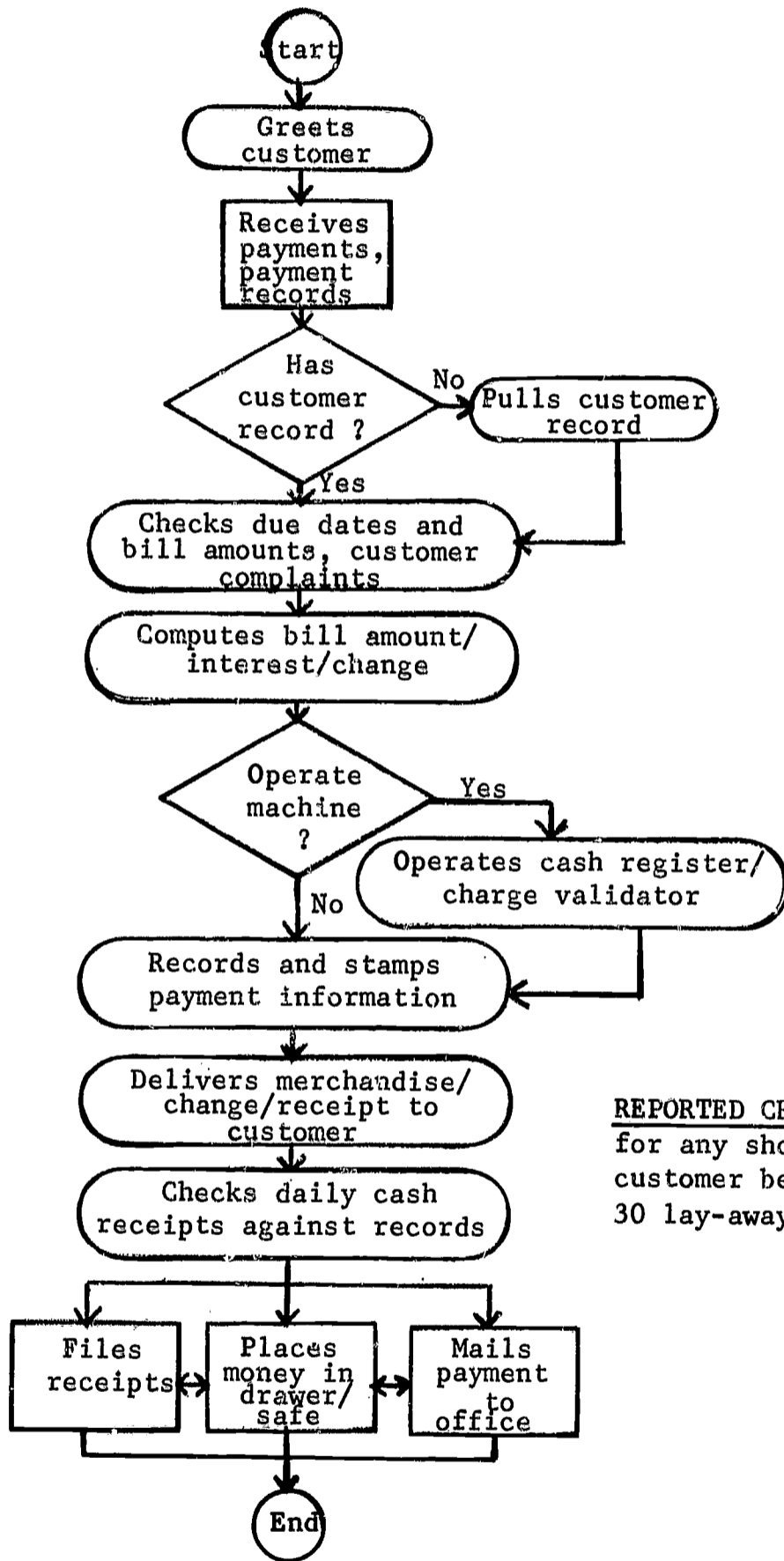
carbon copy of deposit slip



2. GIVEN BANK STATEMENTS AND CHECKS, THE WORKER RECONCILES BANK STATEMENT.  
(8 task sheets)



3. GIVEN CUSTOMERS WISHING TO MAKE PAYMENTS, THE WORKER RECEIVES PAYMENTS OVER THE COUNTER. (20 task sheets)



HARDWARE

- Cash register
- Calculator
- Adding machine
- Typewriter
- Posting machine
- Charge plate validation machine

SOFTWARE

- Customer record books
- Company record books
- Cash receipts
- Merchandise (lay-away items)

EDUCATIONAL CUES

- Accuracy in handling money
- Computational skills
- Courtesy in dealing with customers
- Filing
- Typing

REPORTED CRITERIA: "Worker must account for any shortages; Essential that customer be greeted immediately; Averages 30 lay-away transactions daily"

## ACQUISITION

## Greet

customers

## Pulls

customer record card/office bill copy

## RECEIVES

payments/change bag/COD sales slips/coupon payment books/loan book/charge plate/lay-away tickets/ads/utility bills/classified ad bills

## PROCESS

## CHECKS

amount of bill with due date and amount of money received/previous computations on bill/customer complaints on bill amounts

## COMPUTES

net and gross amount of bill/interest due

## Subtracts

interest from total payment

## Counts

change drawer/payment received/customer change twice to self, once to customer

## OPERATES

cash register/charge plate validation machine

## RECORDS

payment information on customer record book/company record/punched card

## Stamps

bill "paid"/customers premium book

## Writes

(or types) customer receipt

## DISPOSITION

## FILES

record card/receipt

## DELIVERS

merchandise (lay-away items) to customer

## Returns

record book, receipt, and change to customer/change bag to safe

## Places

money in drawer/locked box/cash register

## MAILS

payment to home office

4. GIVEN CHECKS AND ACCOUNTS RECEIVABLE RECORDS, THE WORKER RECORDS PAYMENTS RECEIVED. (17 task sheets)

HARDWARE

Mechanical letter opener  
Adding machine  
Typewriter  
Register  
Accounting machine  
Company name stamp

SOFTWARE

Checks  
Receivables journals and ledgers  
Receivables forms and envelopes

EDUCATIONAL CUES

Computational skills  
Good penmanship  
Filing  
Typing

REPORTED CRITERIA: "60 entries an hour;  
Handles 5000 payments a month"

ACQUISITION

RECEIVES

cash receipts/cash records/  
punched account cards/computer  
printout on cash receipts/  
overpayments/past-due payments

PROCESS

SORTS

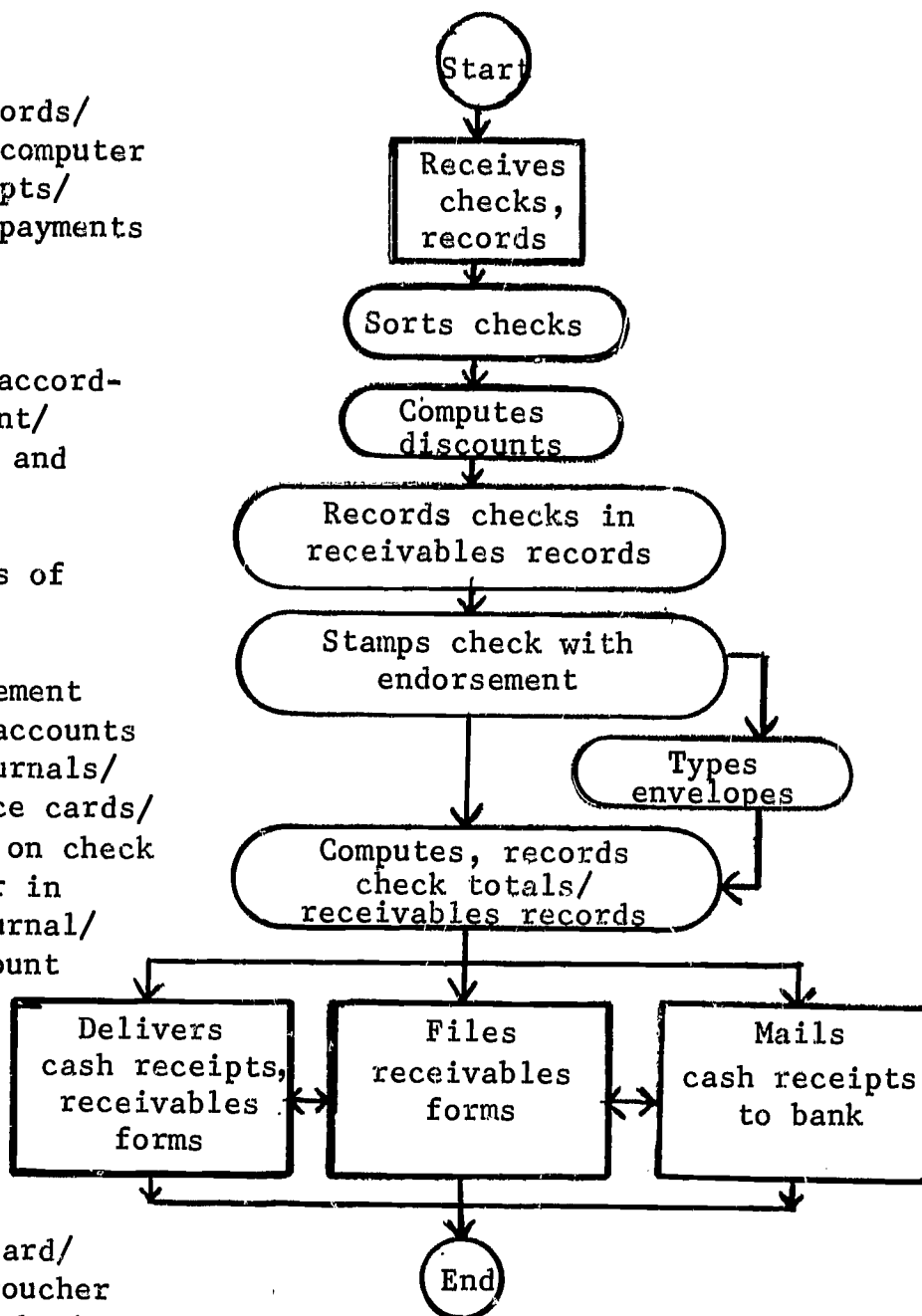
checks alphabetically/accord-  
ing to method of payment/  
punched cards into bad and  
good accounts

COMPUTES

total of checks/amounts of  
discounts

RECORDS

checks in cash disbursement  
journal/cash receipts/accounts  
receivable ledgers, journals/  
cash slips/sales invoice cards/  
page number of journal on check  
as it is posted/voucher in  
accounts receivable journal/  
cash on customer's account



sheet/customer's file card/  
cash receipts on cash voucher  
form/cash receipts/COD checks  
on sales invoice cards by running through cash receipts register/  
overpayment as customer credit

Stamps

each check with company stamp

TYPES

envelopes for forwarding checks

COMPUTES

balance of each page of journal as it is completed/number of sales invoice  
cards processed and number of checks/totals of credit slips for each  
salesman

DISPOSITION

FILES

vouchers numerically in journal/copy of cash receipts form in cash receipts  
file/accounts receivable ledger



## MAILS

checks and cash receipts and form to bank

## DELIVERS

cash slips, checks, credit slips, adding machine tape to Bookkeeping/  
Key punching/co-worker

5. GIVEN CHECK-OUT REQUESTS AND LATE AND LOST BOOK NOTICES, THE WORKER PROCESSES MONEY FOR LIBRARY BOOKS AND FILMS. (3 task sheets)

Receives price slips for lost books/request to check out films

Matches price slips and charge cards

Computes amount of fine for library book

Types replacement cost bill/booking slip for film

Sends bill to student with form letter and bill copy to cashier

Files bill copy, charge card, price slip

Types dummy charge card to indicate book loss to library patrons

Files dummy charge card in missing book file

Receives fines/insurance money for film

Transfers bill to paid box

Balances cash register weekly

Delivers money to cashier/film to shelf

Receives receipt for money

REPORTED CRITERIA: "Checks out 35 films a day; Must be effective in dealing with irate people"

RECEIPTS CRITICAL INCIDENTS

"The worker added up a customer's classified ad bill, rang the amount up on the cash register, and handed over a receipt--neglecting to receive payment from the customer. The following day the worker realized a shortage in cash funds and had to determine the error."

"The worker once couldn't balance her cash receipts at the end of the day and had to write that she was \$15.00 short on the tape. After we received the bank deposit slip from the bank the next day, we found what had happened. She had counted \$10.00 worth of quarters but had recorded it on the tape as \$25.00 because she was thinking of the number 25 pertaining to quarters."

1.4 ACCOUNTING, DISBURSEMENTS

## 1. GIVEN REQUESTS FOR PAYMENTS, THE WORKER DISBURSES FUNDS. (11 task sheets)

## ACQUISITION

## Greet

patient/employee

## RECEIVES

check requisition/driver request for expense money/scholarship checks/  
warrants/checks/cash, tills and money bags

## Pulls

file of insurance check recipient

## PROCESS

## RECORDS

amount desired on form/amounts paid out/approval of payment/check numbers  
and dates in check register/employees names as cash-drawer or money-bag  
recipients

## OPERATES

check-signer machine

## Requests

approval of funds/blank check from Accounting for requisition/signature of  
supervisor on check

## CHECKS

signature on account card/balance in requesting department's account/  
number of checks processed on check-signer machine/dates of employee  
disability/till and money bag contents

## COMPUTES

totals of monthly disbursements

## COMPILES

disbursements worksheet daily

## DISPOSITION

## DELIVERS

check to driver/to scholarship holders/funds to employee/tills and money  
bags to employees

## MAILS

insurance checks to recipients/check form requests to main office/checks  
for buying stock

## Wires

money to driver

## FILES

tuition refund forms/insurance statement in employee folder/copy of check  
requisitionHARDWAREAdding machine  
Typewriter  
Check-signer machine  
Telautograph machine  
Cash drawers (tills)SOFTWARERequisitions for funds  
Cash and checks  
Money bags  
Insurance forms  
Disbursement recordsEDUCATIONAL CUESRecording and checking  
skills  
Typing  
Filing  
Computational skillsREPORTED CRITERIA: "Checks must be typed accurately; Time pressure"

2. GIVEN A REQUEST FOR MONEY, THE WORKER DISBURSES PETTY CASH FUNDS. (4 task sheets)

Receives request for money/petty cash box

Records amount disbursed on company form/petty cash form

Writes out request slip for petty cash

Writes checks

Checks to make sure that petty cash bag contains specified amount of money

Requests approval of disbursement of funds on telautograph machine

Delivers checks/cash to person requesting it

Files copy of petty cash form

Counts cash at end of day and balances with disbursement vouchers

Types check for reimbursement of petty cash fund

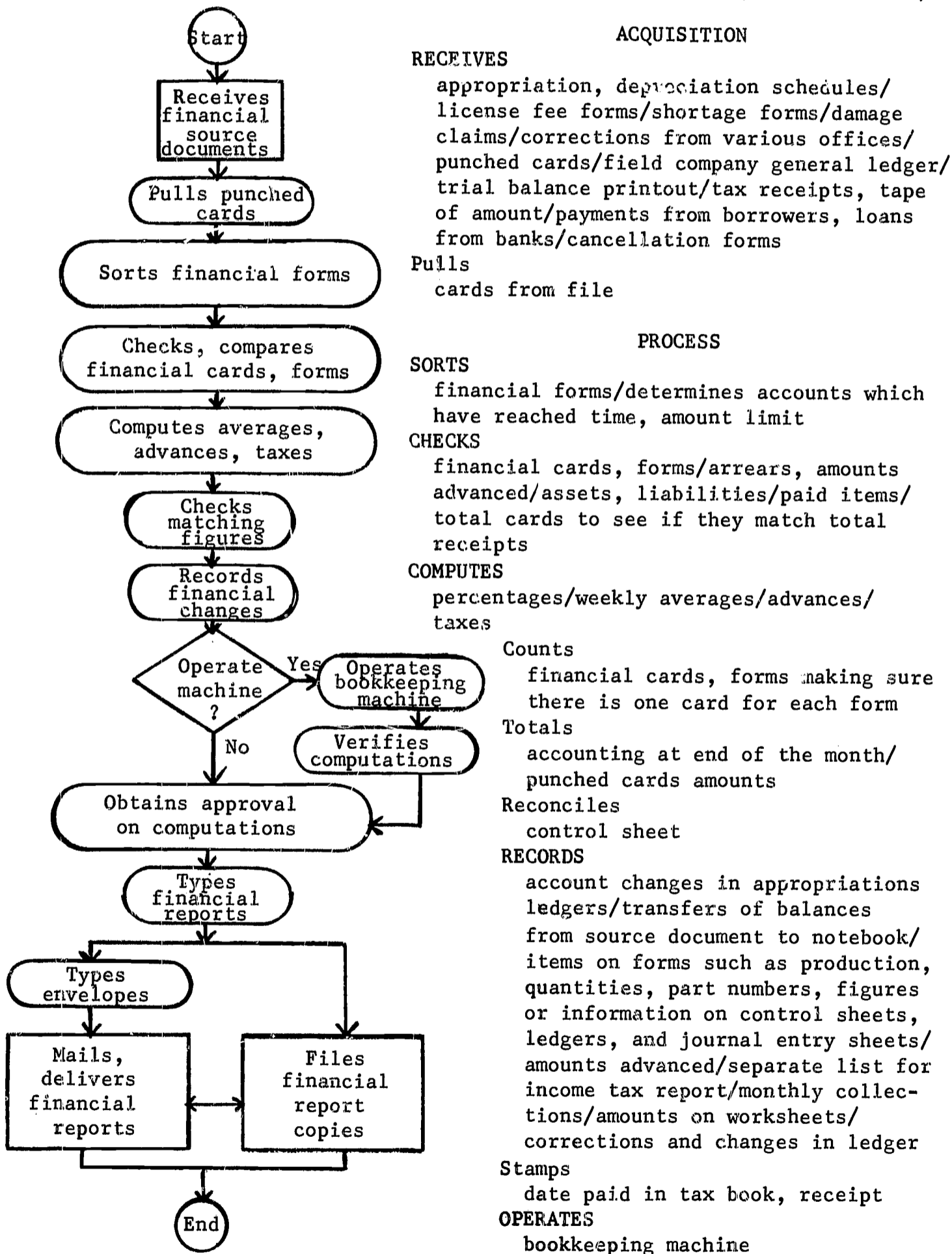
Mails check to main company office

DISBURSEMENTS CRITICAL INCIDENT

"We had an exceptionally large volume of cash disbursements just the other day. I didn't have to void one check for her. She is a person that pays attention to the detail of her job."

### 1.5 ACCOUNTING, FINANCIAL ENTRIES

1. GIVEN FINANCIAL SCHEDULES, LICENSE FEE FORMS, AND DAMAGE CLAIMS, THE WORKER COMPUTES AND RECORDS DATA IN FINANCIAL REPORTS. (28 task sheets)





## Verifies

bookkeeping machine figures

## Obtains

signatures/approval of calculator operator/supervisor

## TYPES

reports/invoices/numbers, data on forms/envelopes

## DISPOSITION

## DELIVERS

report

## Sends

report for checking/punched cards to Data Processing/financial statements

## MAILS

reports

## FILES

report copies/punched cards by lot, block number/tax receipts by data

SUPPLEMENTARY STEPS: Takes trial balance monthly, yearly; Compiles construction estimate

HARDWARE

Adding machine (10-key)

Bookkeeping machine

Calculator

Typewriter

SOFTWARE

Forms, cards

Receipts

Financial schedules

License fee forms

Damage claims

EDUCATIONAL CUES

Care in copying  
figures

Concentration

Neatness, checking

Computational skills  
accuracy

(percentages)

Statistical typing

REPORTED CRITERIA: "Be persistent in looking for errors; Attention to detail; Write legibly"

2. GIVEN INTERNAL ACCOUNTS TO CONTROL, THE WORKER POSTS MONIES RECEIVED AND SPENT AND BALANCES ACCOUNTS. (1 task sheet)

Records all money received as a debit

Places money in safe

Writes all checks requested

Records a credit in accounts for checks written

Writes receipts weekly

Counts cash twice weekly

Delivers money to bank twice weekly

Reconciles ledger monthly

Posts account balances monthly

Attaches stencil to record balances for all accounts

3. GIVEN TRANSFER FORMS, THE WORKER ADJUSTS THE PROPERTY TAX RECORDS. (1 task sheet)

Receives transfer forms in mail

Records in red ink the new owner's name, address change, and date deed was filed on the tax roll in book

Pulls card from file  
Records on card new data on new owner  
Removes name, address of old owner  
Files card alphabetically by new owner  
Obtains signature of property assessor  
Completes form in ink to send to Data Processing to cut a new card  
Delivers form to Data Processing  
Files transfer form by lot and block

4. GIVEN FINANCIAL REPORTS/PROFIT, LOSS STATEMENTS/ADJUSTING, AND NEW DATA, THE WORKER COMPLETES FINANCIAL REPORTS. (26 task sheets)

## ACQUISITION

## RECEIVES

revenue sheets/adding machine tape/invoices/report of orders/printout of supplies/inventory adjustment sheet/credit requisitions/out-of-state sales tax/rough draft/handwritten financial report copy/financial reports, statements, man hour reports

## PROCESS

## CHECKS

financial documents for completeness/every fiftieth freight bill number/ advertisements/figures

## Proofreads

typewritten materials

## CALLS

shipping clerk for shipment information

## COMPILES

worksheet

## Devises

new design report table

## Pulls

previous month's report/copy of budget

## COMPUTES

totals of debits and credits/percentages of past due and excessive credit reports

## RECORDS

bill number and weight/amounts owing, paid

## Writes

deposit slip

## RECEIVES

random selection audit

## Obtains

signature/approval of supervisor

## TYPES

financial statement/report/profit, loss statement/address labels/envelopes

## DUPLICATES

financial reports/statements

## DISPOSITION

## DELIVERS

worksheet/envelopes/financial report to supervisor at end of month/to typist

## Distributes

financial reports/accounting statements/profit, loss statements/freight charge report

## FILES

copy of report/copies of financial documents, forms

## MAILS

financial reports

SUPPLEMENTARY STEP: Binds report according to month of year

HARDWARE

Adding machine (10-key)  
Typewriter  
Rotary calculator  
Duplicator

SOFTWARE

Credit, tax forms  
Adding machine tape  
Deposit slips  
Financial reports,  
worksheets  
Invoices  
Adjustment sheets

EDUCATIONAL CUES

Checking  
Statistical typing  
Accuracy  
Proofreading

REPORTED CRITERIA: "Should have the ability to type a financial statement in about one hour; Work under pressure; Great deal of concentration and neatness and legibility of handwriting; Must have accounting knowledge and experience; Able to evaluate profit and loss statements"

FINANCIAL ENTRIES CRITICAL INCIDENTS

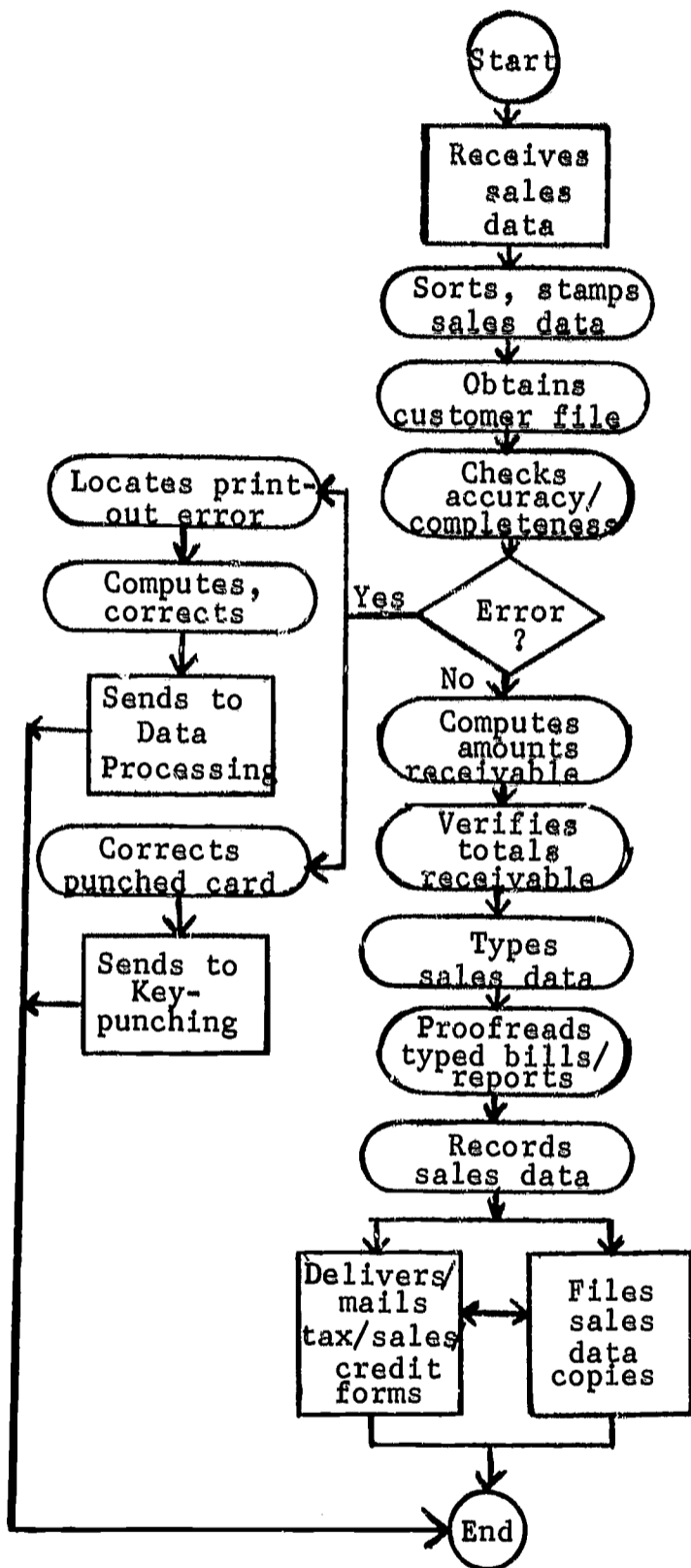
"The supervisor conducted a study unknown to the girls in his department of the transactions the girls were posting on posting machines. This worker ranked second. Her accuracy was unusually high. If the worker does not know or understand something, she will ask the supervisor."

"We do a lot of money exchanging with the bank in the forms of loans for short periods of time. The worker failed to post some very important information in her journals and we ended up borrowing \$100,000 more than we should have. The error was soon caught but we still had to pay some interest on the money that was credited to our account by the bank."

"A former employee could not trace errors and could not balance accounts. He could not follow through. He had a good school background, but he lacked imagination as to why a shortage had occurred or why figures would not balance. He lacked the ability to be aware of possibilities of errors. He did not recognize the types of mistake that caused errors. The company fired him because of too many mistakes."

1.6 ACCOUNTING, ACCOUNTS RECEIVABLE (SALES ACCOUNTING)

1. GIVEN DOCUMENTS SUCH AS SALES SLIPS, INVOICES, COMPUTER PRINTOUTS, THE WORKER COMPUTES BILLING AND SALES FOR ACCOUNTS RECEIVABLE. (38 task sheets)



## ACQUISITION

## RECEIVES

customer and weekly sales/price agreement number/remittance slips/contracts/chain store slips/invoices/computer sheets/requisitions/ledgers/sales work sheets/daily settlement sheets/sales records and disbursements/partial shipment tickets/tax forms/call tickets/order cards

## PROCESS

## SORTS

according to route/alphabet/number/by type of telephone call/requisitions/cards by dates

## Stamps

date/number/paid/charge/amount on order

## Obtains

file on customer

## CHECKS

for accuracy/due date/order numbers, addresses/codes/listed items for completeness/expiration data/prices

## COMPUTES

sales ticket amounts/total deposits, collections/price differences/discount, sales tax/number minutes on call ticket/percentages of discount/extensions/profit/weights/charges

## Verifies

totals on computer sheets, work sheets/territories of salesmen

## TYPES

invoices/account numbers/manifest/amounts on wholesale form/profit sheet/sales order forms/report of accounts receivable

## Proofreads

typewritten material

## RECORDS

totals on cash report form/cash sales/charge sales/each customer's balance/taxes/charge sales/payments/discount/expiration date/code number of items sold



## DISPOSITION

## FILES

order to stop ad/copy of sales ticket and manifest/tax form/wholesale form

## MAILS

original copy of tax form to state

## DELIVERS

to supervisor computer sheet/call tickets/partial shipment tickets/credit forms/summary sheets

SUPPLEMENTARY STEPS: Batches call tickets; Duplicates statements

HARDWARE

Adding machine (10-key)  
Bookkeeping machine  
Calculator

SOFTWARE

Accounts receivable  
documents  
Adding machine tapes  
Sales tickets  
Code book  
Weight, measurement  
tables  
Books, magazines

EDUCATIONAL CUES

Computational skills  
Accuracy  
Typing  
Filing

REPORTED CRITERIA: "A general knowledge of bookkeeping and accounting terminology is most helpful in early adaptation to nature of the position; Minimum bookkeeping ability; Absolute accuracy required; Simple math ability; Must understand rules and regulations for each state (rates), concentration in using figures; Legible handwriting; Reading and using weight and measurement tables"

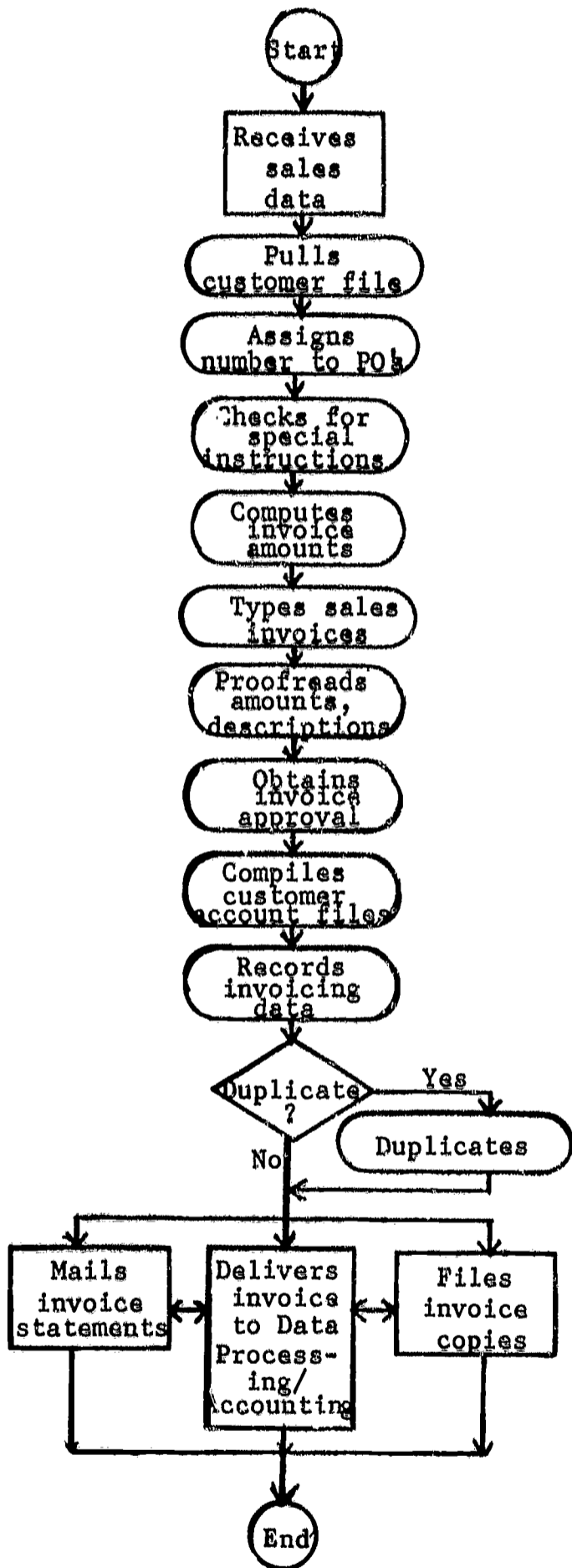
2. GIVEN NOTICE THAT ACCOUNT STATUS HAS CHANGED, THE WORKER TRANSFERS BILLING RECORDS OR REFERS TO CLAIMS DEPARTMENT. (2 task sheets)

Receives call/notice that account status has changed  
Checks records to see if service is off  
Checks status of account  
Completes turn-off order if dwelling is unoccupied  
Sends collection records and code order to supplier  
Receives notices from supplier  
Computes bill for estate settlement  
Types new bill for new owner of estate

3. GIVEN OVERDUE ACCOUNTS, THE WORKER CALLS CUSTOMERS TO REQUEST PAYMENT. (4 task sheets)

Receives list of overdue accounts  
Pulls customer file  
Calls customer  
Requests promise to pay  
Informs customer of importance of good credit rating  
Records call information and date made  
Determines success or failure of call  
Files customer account  
Delivers account to collection agency if unsuccessful on call

4. GIVEN BILLING INFORMATION SUCH AS SALES TICKETS, CONTRACTS, RECEIVING REPORTS, THE WORKER TYPES INVOICES. (49 task sheets)



ACQUISITION

RECEIVES

shipment forms/meter reading card/  
sales tickets/catalog order/purchase  
orders/special accounts/repair papers/  
contracts/change slips/invoices/  
request forms/list of accounts due/  
request for information/ledger sheets/  
manifest/bills of lading/receiving  
report

PROCESS

Pulls

account ledger card/inventory book

Codes

special accounts

Assigns

number to purchase orders

CHECKS

file/for special marking or instruc-  
tions/correct billing date/price  
chart/cancelled check if customer  
claims payment/cost/amounts/receiving  
reports if material is in inventory  
book

COMPUTES

charges for ads/commissions/discount  
date/amounts for invoice/costs for  
repair

TYPES

statement/invoices/unclaimed statements/  
account due forms/shipping information/  
changes on account ledger card/revenue  
amounts on forms

Proofreads

invoices for completeness, accuracy

Obtains

invoice approval from supervisor

SORTS

according to contract and non-contract  
customers/shipping manifest

COMPILES

files for customer account/bills of  
lading/invoices/statement, customer  
file

RECORDS

mailing of repaired item in inventory  
book/initials/unclaimed statement/  
whether material is in inventory/  
numbers on meter cards

## DUPLICATES

purchase orders/contracts/requisitions

## DISPOSITION

## DELIVERS

to filer/Accounting/to bookkeeper for refunds/lists of closed purchase orders to Data Processing/meter cards to Key punching

## MAILS

invoices daily/statements at end of month

## FILES

customer folder/final order form by number/invoice copy/accounts ledger card/meter cards/punched cards

SUPPLEMENTARY STEP: Photocopies bills for customers on request

HARDWARE

Typewriter  
Hand stamp  
Addressograph machine  
Duplicator

SOFTWARE

Code book  
Price charts  
Invoices  
Bills of lading

EDUCATIONAL CUES

Typing  
Accuracy  
Coding  
Computational skills  
Checking  
Filing

REPORTED CRITERIA: "Types bill correctly; Typing minimum 40-50 wpm; Accuracy in math; Flexibility demanded to perform unfamiliar tasks without panic; 100 percent accuracy required; Books balance; Typing must be correct--no abbreviations, addresses must be correct--no misspellings, double check all amounts; Correct invoice reaches correct customer destination; Mistakes are costly and annoying to customers; Accuracy of detail; Customer must be pleased"

5. GIVEN DOCUMENTS SUCH AS SALESMEN'S ORDERS, CASH RECEIPTS, AND INVOICES, THE WORKER RECORDS AND POSTS ACCOUNT RECEIVABLE. (48 task sheets)

## ACQUISITION

## RECEIVES

transfer of customer account to another branch store/account applicant/cards noting repairs completed/accounts receivable cards/auto rental agreement/salesmen's report/sales and rental invoice/cash receipts/application for service/punched cards/service tickets/carrier name/ledger card/invoices and credit memos/charge tickets

## PROCESS

## Pulls

corresponding order/customer ledger account/invoices/customer statement

## SORTS

orders/cards/service tickets/invoices according to type/cash and charge tickets/sales sheets

## Codes

checks/forms/by number of days merchandise was in transit

**CHECKS**

accuracy of totals/all figures by running tape/cards/extensions on tickets/  
all information for correctness

**Stamps**

date on customer order/initials on invoice/date on invoice/check with  
endorsement stamp

**RECORDS**

amounts of item sold/customer data on account card/date and quantity on  
contract/shipping data on contract/all shipments/amounts due on repair/  
extensions/sales by departments/information on profit and loss statement/  
serial numbers of items/codes/date and number of invoice/type of purchase/  
new balances/completed repairs/amounts received/applicant information/total  
number and types of documents received/date of payment

**COMPUTES**

grand totals/number of items shipped

**TYPES**

customer account ledger card/carrier data on form/list of unshipped orders/  
maintenance form from customer orders/list of payments for clients by name/  
list of checks/receipts

**CHECKS**

all figures to make sure they balance, total with daily sales report, by  
running tape

**Posts**

service tickets to ledger cards/new balances/cash receipts/invoices/  
daily orders/daily shipments/sales rental fee/data from detail sheets/  
payments

**DISPOSITION****DELIVERS**

transmittal sheet to Data Processing/copy of account transfer to Bookkeeping/  
money to box/report forms/repair cards to Billing

**FILES**

order cards numerically/service tickets/ledger sheet/posted invoices and  
credit memos/completed customer orders/journal sheet/accounts receivable  
cards/application for investigation later

**MAILS**

invoices and credit memos/statements/receipt to customer

**SUPPLEMENTARY STEP:** Photocopies meter cards

**HARDWARE**

Typewriter  
Adding machine (10-key)  
Duplicator  
Bookkeeping/posting/  
billing machines  
Hand stamp  
Calculator

**SOFTWARE**

Account code books  
Ledger cards  
Invoices  
Sales reports  
Correction tickets  
Tax forms  
Sales receipts

**EDUCATIONAL CUES**

Typing  
Duplicating  
Computational skills  
Accuracy  
Checking  
Coding  
Filing



REPORTED CRITERIA: "All figures are correctly recorded; Totals balance; Average typing ability of approximately 40 wpm; Legible handwriting; Bookkeeping machine time is at a premium so speed is essential; Ability to operate an accounting machine accurately and quickly; Must post accurately; Accuracy is more important than speed; Every computation double checked for accuracy purposes; Knowledge of operation of bookkeeping machine; Attention to detail"

6. GIVEN DELINQUENT ACCOUNTS, THE WORKER WRITES CUSTOMER TO OBTAIN PAYMENT PROMISE/ADVISE OF FURTHER ACTION. (27 task sheets)

#### ACQUISITION

##### RECEIVES

past due notices/ledger cards/invoices, statements/part-payment accounts/  
list of overdue accounts/payments/oral instructions/cancelled check/bad  
check information/collection record and cards/non-payment cards/cut-off-  
service cards

#### PROCESS

##### Pulls

overdue loan cards/delinquent records

##### COMPARES

matched lists with cards

##### SORTS

according to data/collection cards/unpaid ads

##### CHECKS

notices with register book/work order with invoice/invoice for due date/  
payment overdue/daily for payments/address/collection code/history card/  
credit report

##### COMPILES

list of past due accounts

##### Selects

form letter

##### Writes

amount past due/meter number on service copy/list of delinquents/new address  
on bill

##### CALLS

delinquent customer to request payment

##### COMPUTES

final date due/collection sheet totals

##### TYPES

information from notice on non-payment card/composed, form letters for  
collection/overdue notices/list of those not reached by telephone

##### DUPLICATES

death certificate/past due invoices/overdue loan cards/contract and auto  
title of bankrupt customer

##### Stamps

date on card/company name on due notices

**RECORDS**

information on form showing balance due/new deadline date in follow-up book/telephone notice/sending of notice/amount and date paid on card  
Obtains

notarization of bankruptcy forms

**FILES**

notices/work orders/copy of letter/payment reminders/loan cards, forms

**MAILS**

copy of death certificate to insurance company for collection of loan/non-payment card/invoice copy to customer/collection sheets/letters/returned check to maker

**DELIVERS**

list of names to bookkeeper/payments to bookkeeper/notarized forms to lawyer/past due statements to supervisor/statement stubs to cashier/unmatched cards to Data Processing

SUPPLEMENTARY STEP: Arranges to extend due date for customer

**HARDWARE**

Typewriter  
Adding machine (10-key)  
Duplicator  
Hand stamp  
Files

**SOFTWARE**

Account cards  
Envelopes  
Register book  
Work orders  
Loan cards, forms  
Service notices

**EDUCATIONAL CUES**

Statistical typing  
Accuracy  
Filing (numeric, alphabetic)  
Checking  
Communication skills

REPORTED CRITERIA: "Use tact; Accept criticism for company; Distinguish between valid excuse and made-up excuse for not paying account; Accurate matching and records; Exercise ingenuity locating customers and tact to avoid antagonizing customers; Common sense and logic; Make judgments"

7. GIVEN QUESTIONS REGARDING BILLING ON INVOICES/BILLS OF LADING/PUNCHED CARDS, THE WORKER CHECKS ACCOUNTS RECEIVABLE DATA. (18 task sheets)

**ACQUISITION****RECEIVES**

billings invoices, punched cards, bills of lading, requests by telephone for quoted price, numerical card on loan, work orders

**PROCESS****Pulls**

shipping tickets with bills of lading attached/original invoice/file of externally discovered errors/service contracts

**CHECKS**

printout sheets/card information/accruals/shipping data/work order against service contract amounts/prices/files for amount paid/to identify checks received/tickets for defects/shipping tickets against billing invoices for accuracy/bills of lading with original invoice/statement with invoice/error

**SORTS**

invoices/bills of lading/shipping tickets

**COMPARES**

billing statement to original invoice/information on customer on card/metal tag to statement if amount is excessive

**RECORDS**

total figures from purchase orders in account book/work done/notes on items not included in contract

**DISPOSITION****FILES**

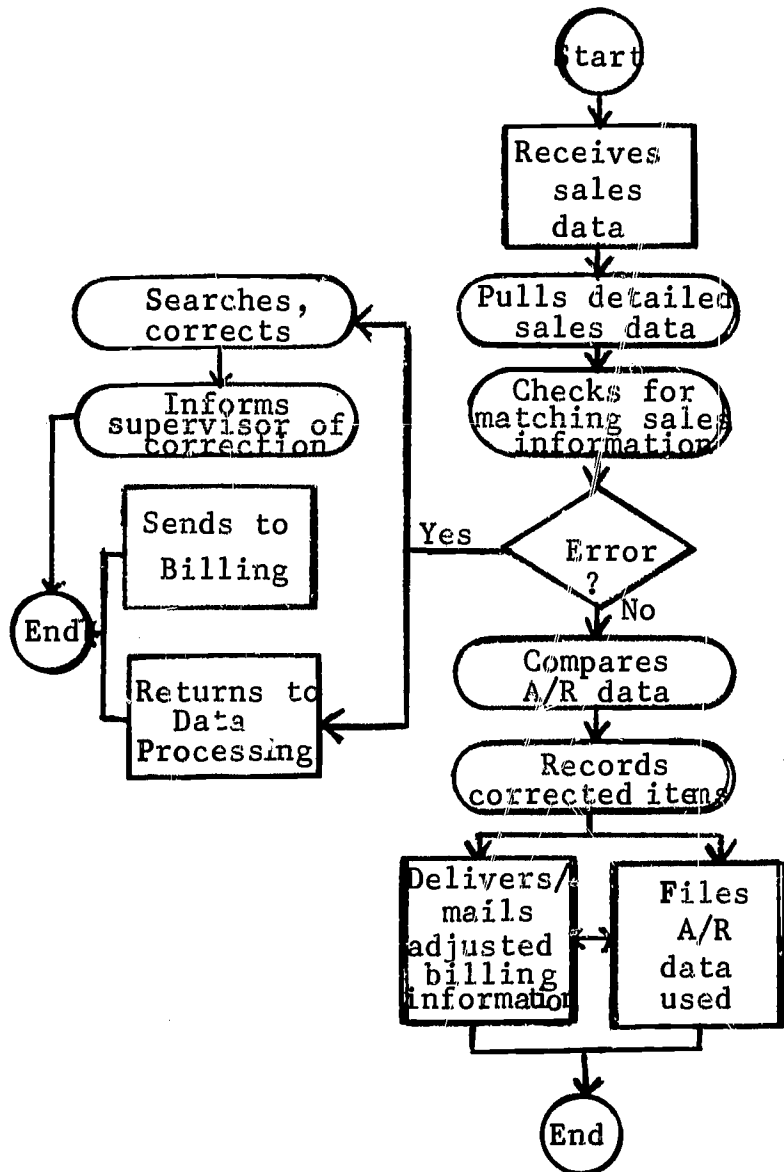
copy of invoice/shipping tickets/copy of billing statement/posted loan sheet

**MAILS**

original invoice to customer

**DELIVERS**

punched cards, invoices to Data Processing/copy of invoice to Marketing/statements to supervisor/to Service all information caller gives regarding account

**HARDWARE**

Files

**SOFTWARE**

Account cards  
Metal tag  
Procedures manual  
Invoices, bills of lading  
Shipping tickets  
Punched cards

**EUCATIONAL CUES**

Checking  
Accuracy  
Filing  
Follow-through on pricing policy

**REPORTED CRITERIA:** "All customers receive invoice showing correct amount owing; Accurate quotation on price of item; Billing must be processed by a certain date, therefore, there is time pressure; Accurate charges must be assessed; Follow procedures manual"

8. GIVEN DEPARTMENTAL REPORTS, PRINTOUTS, AND SALES SLIPS, THE WORKER COMPILES AND TYPES REPORTS AND RECAPS FOR ACCOUNTS RECEIVABLE. (12 task sheets)

## ACQUISITION

## RECEIVES

adding machine tape/report forms from salesmen/reports from departments and stores/sales slips and recap sheets/computer printouts

## PROCESS

## Pulls

collection sheets/summary report form of sales/reports

## COMPILES

sales slips

## SORTS

data on collections

## CHECKS

ledger card/total sales orders/invoices with tax certificates/computations

## COMPUTES

balances/extensions on sales recap/averages/percentages

## RECORDS

amount owed on collection sheet/amounts and quantities shipped/actual expenditures by department

## TYPES

letter requesting tax certificate/tax forms/summary sheet/sales orders/recap sheets/comparison recap sheet/budget report on offset mats

## Proofreads

typewritten materials

## Totals

all balances/percentages

## DUPLICATES

daily, weekly sales report

## DISPOSITION

## FILES

copy of invoice amounts/transmittal sheet/recap sheet/report

## DELIVERS

recap sheet to Data Processing/copy of collection sheets to supervisor/original sales orders/sales report/recap sheet to Payroll

## Distributes

sales report copies/recap sheets

## MAILS

collection sheets to salesmen/cover letter with tax forms/sales reports

SUPPLEMENTARY STEP: Microfilms copy of sales slips

REPORTED CRITERIA: "Accurate picture of current status of sales compared to previous year; Use judgment deciding whether an item is income or reduction in expense; Tax commissioner receives report on time; All totals balance"



HARDWARE

Adding machine (10-key)  
 Typewriter  
 Calculator  
 Duplicator  
 Files

SOFTWARE

Sales orders, slips  
 Collection sheets  
 Tax certificates  
 Sales reports  
 Budget reports  
 Recap sheets  
 Invoices

EDUCATIONAL CUES

Accuracy  
 Checking  
 Making numerical  
 comparisons  
 Computational skills  
 Filing  
 Typing

ACCOUNTS RECEIVABLE CRITICAL INCIDENTS

"Worker makes an occasional error of sending the incorrect number of copies of bills to those customers who are billed in an irregular way. The customer does not receive enough copies of the bill or receives too many."

"Initially the worker did not use decimals well. Consequently, the worker recorded an invoice incorrectly which cost the company a considerable amount of money."

"The office changed billing machines, and one girl was chosen to learn the machine first. It took less than an hour for her to learn it instead of the full day the trainer expected."

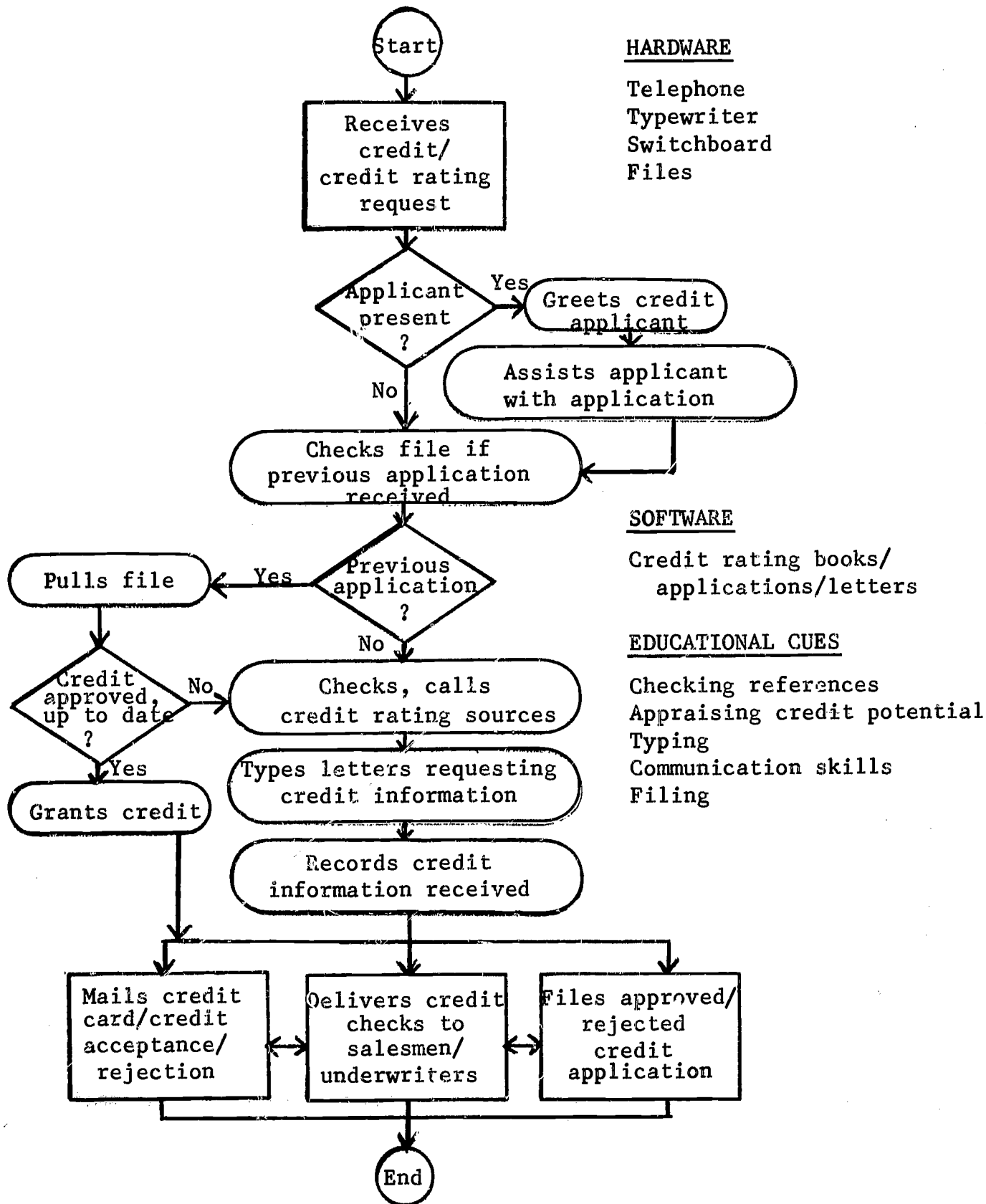
"Once a customer sent in a check that was payable to the local telephone company along with his check to us. The employee did not check the name of the company the check was made out to and went ahead and posted the check with the customer's account number with us. We went ahead and tried to deposit the check in our account with the rest of the checks. The employee did not anticipate the fact that a customer might make a mistake and send us a wrong check. Now she checks the payee name on all checks before we send them to the bank."

"Yesterday we received a call from an irate salesman who had talked to an irate customer. Customer owed \$25,000 and had not paid for a year. He had been misbilled consistently on a pricing plan and demanded a personal visit with copies of all invoices so he could pay and clear the debt. The worker put together the entire file, reconstructed events, and discovered that five credits had been issued in error. To offset these credits, debits had then been issued; and the customer interpreted the debits as new billings. She wrote a letter to the customer explaining the situation. The bill was paid."

"Before loading can be started by the Shipping Department, the worker must compute cubic weight, measurements, and carton count on the invoice and bill of lading. After the worker had been there for only a few months, a large order was received with a "rush" sticker. The worker realized it would take a long time to figure the necessary calculations so suggested making a photocopy of the invoice to be sent to the Shipping Department to enable them to start assembling the cartons. This procedure was so effective for both the packers and the worker, this photocopy of rush orders has been made policy."

1.7 ACCOUNTING, CREDIT RATING AND INFORMATION

1. GIVEN APPLICANTS FOR CREDIT AND CREDIT REQUESTS, THE WORKER CHECKS AND CALLS CREDIT RATING SOURCES AND RECORDS POSITIVE AND NEGATIVE CREDIT INFORMATION RECEIVED. (17 task sheets)



REPORTED CRITERIA: "Careful when extending credit to customers; Makes sure all credit information on customer is accurate; Should never fail to find a card that is on file; Complete knowledge of credit card issuing criteria required; Accuracy is of prime importance"

## ACQUISITION

## RECEIVES

customer credit application/verbal request to check credit rating/approved  
credit application/loan application

## Obtains

name, address of customer

## Greet

credit applicant

## PROCESS

## DETERMINES

cause of error on application

## CHECKS

file for previous application/application completeness/credit rating in  
credit books/applicant's employment

## CALLS

credit bureaus/companies with whom applicant does business/detective  
agency to check client/references listed by applicant/company applicant  
employed by/applicant to notify of approved application

## TYPES

form letters requesting credit information/references/credit cards/credit  
approved letter or credit rejected letter to applicant/customer's name on  
file folder tab

## RECORDS

acceptance or rejection of credit

## Writes

credit rating data on credit check form/note on application indicating  
credit checked/credit amount approved on customer record

## Obtains

signature of credit manager

## INFORMS

applicant of company credit policies

## Assists

applicants in filling out credit form

## Discusses

errors on rejected applications with clerk/credit request with supervisor

## DISPOSITION

## MAILS

credit cards to customers/to main office for final approval/form letters  
requesting information to credit bureaus/banks/business associates/  
approved credit letter to customer

## DELIVERS

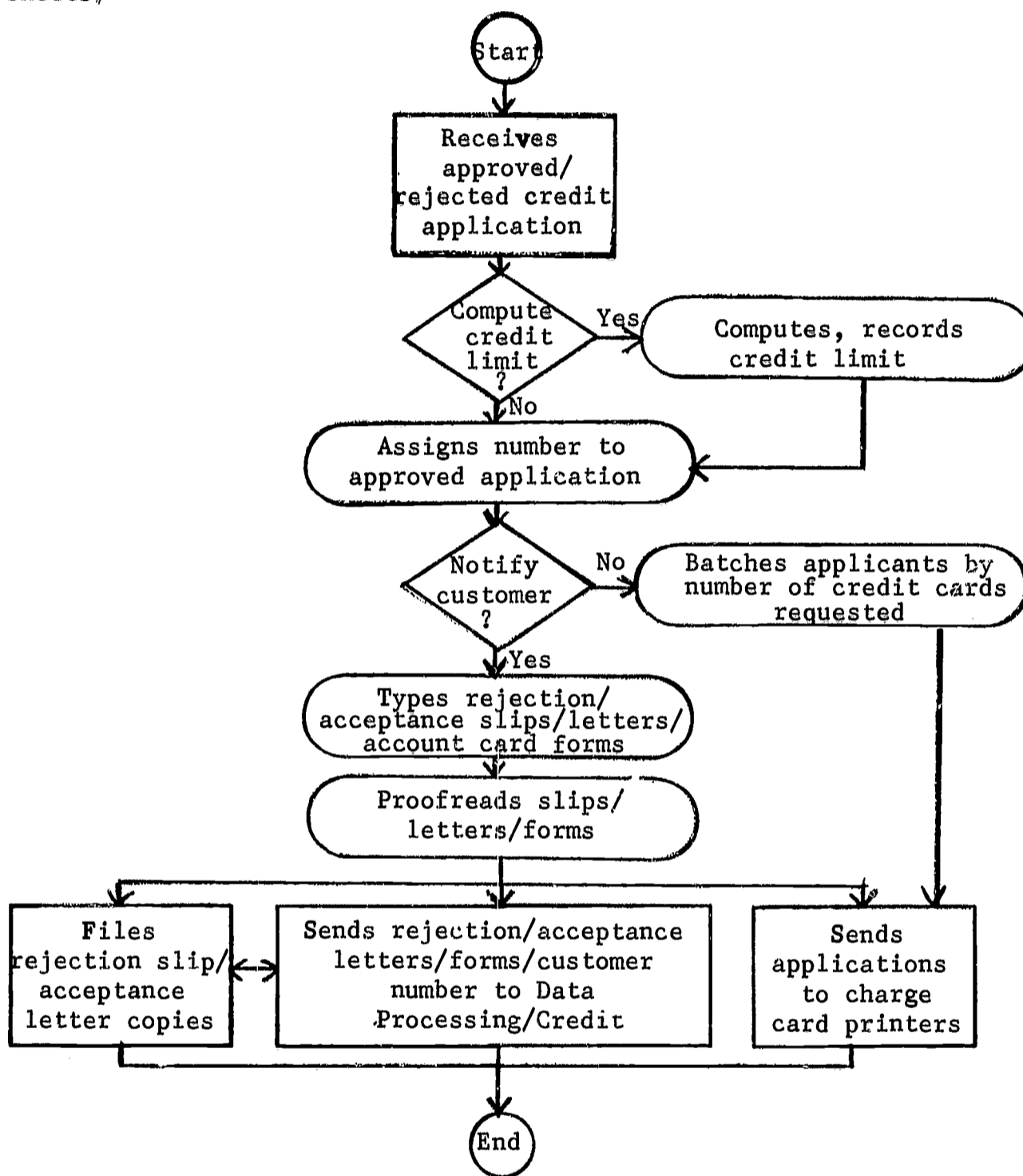
application to potential customers/completed credit checks to salesmen/  
underwriters

## FILES

approved customer credit application/master address label

2. GIVEN A LIST OF DELINQUENT ACCOUNTS, THE WORKER COMPILES AND UPDATES THE LIST FOR THE COLLECTION AGENTS. (1 task sheet)

3. GIVEN PROCESSED CREDIT APPLICATIONS, THE WORKER NOTIFIES APPLICANT AND COMPANY DEPARTMENTS OF APPROVED/REJECTED CREDIT APPLICATIONS. (7 task sheets)

HARDWARE

Adding machine (10-key)  
 Typewriter  
 Files

SOFTWARE

Credit rejection/  
 approved letters  
 Credit card forms

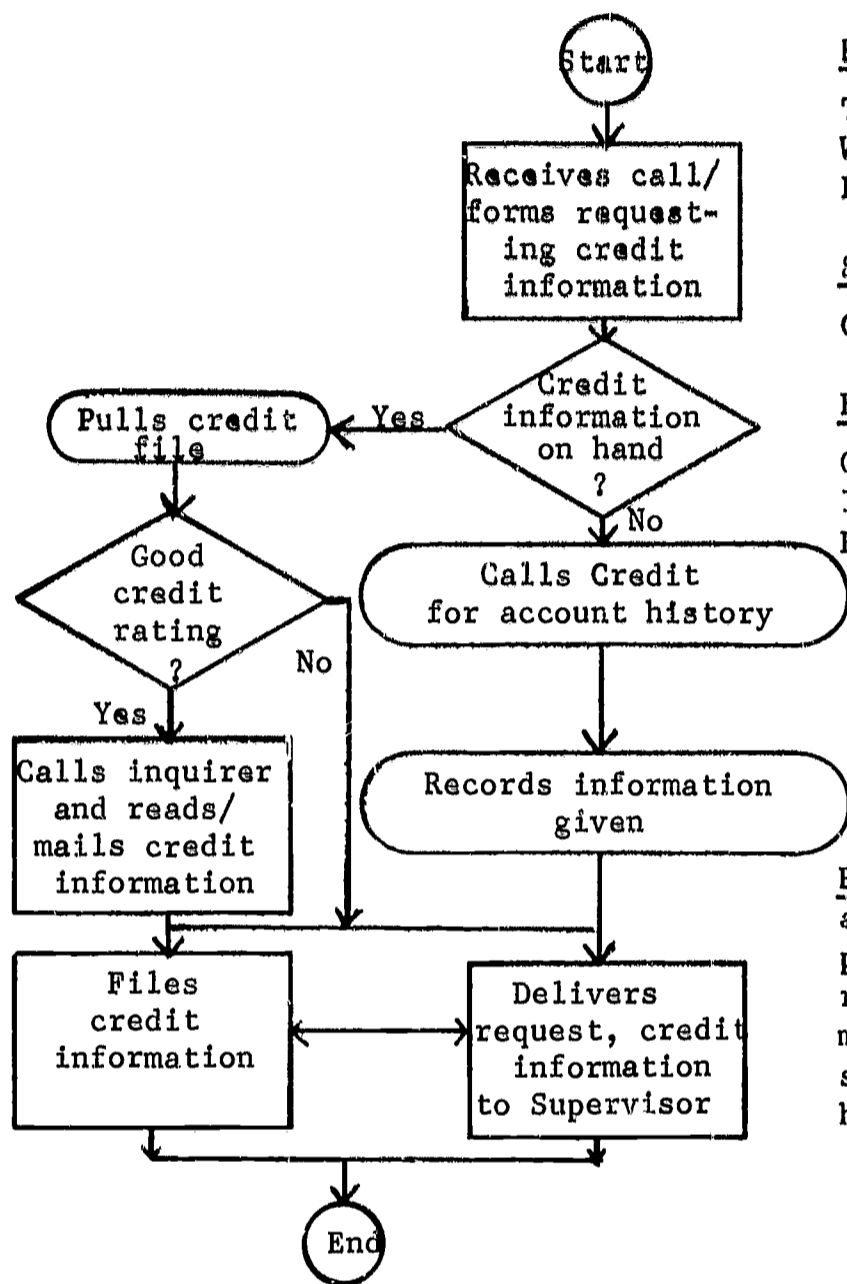
EDUCATIONAL CUES

Typing  
 Computational skills  
 Recording  
 Filing

REPORTED CRITERIA: "Notifications must be handled on daily basis; Letters sent contain no errors"



4. GIVEN A REQUEST FOR CREDIT INFORMATION ON A CUSTOMER, THE WORKER PROCESSES THE REQUEST. (3 task sheets)

HARDWARE

Telephone  
Wheel index file  
File

SOFTWARE

Credit information forms

EDUCATIONAL CUES

Checking  
Interpreting credit account data  
Filing

REPORTED CRITERIA: "Completes approximately 10 credit ratings per day; Great discretion is required in giving out information without account holder's signature; Accuracy and tact in handling confidential information"

5. GIVEN AN ORDER EXCEEDING THE LIMIT OF A CUSTOMER'S CREDIT, THE WORKER DETERMINES WHETHER OR NOT TO EXTEND ADDITIONAL CREDIT. (1 task sheet)

Receives order in amount higher than customer's credit limit

Determines whether customer must pay account first before additional larger credit is given

Checks past payment history, current credit book rating

Writes for confidential information from suppliers who extend this customer credit

Determines from information gathered if requested credit will be extended

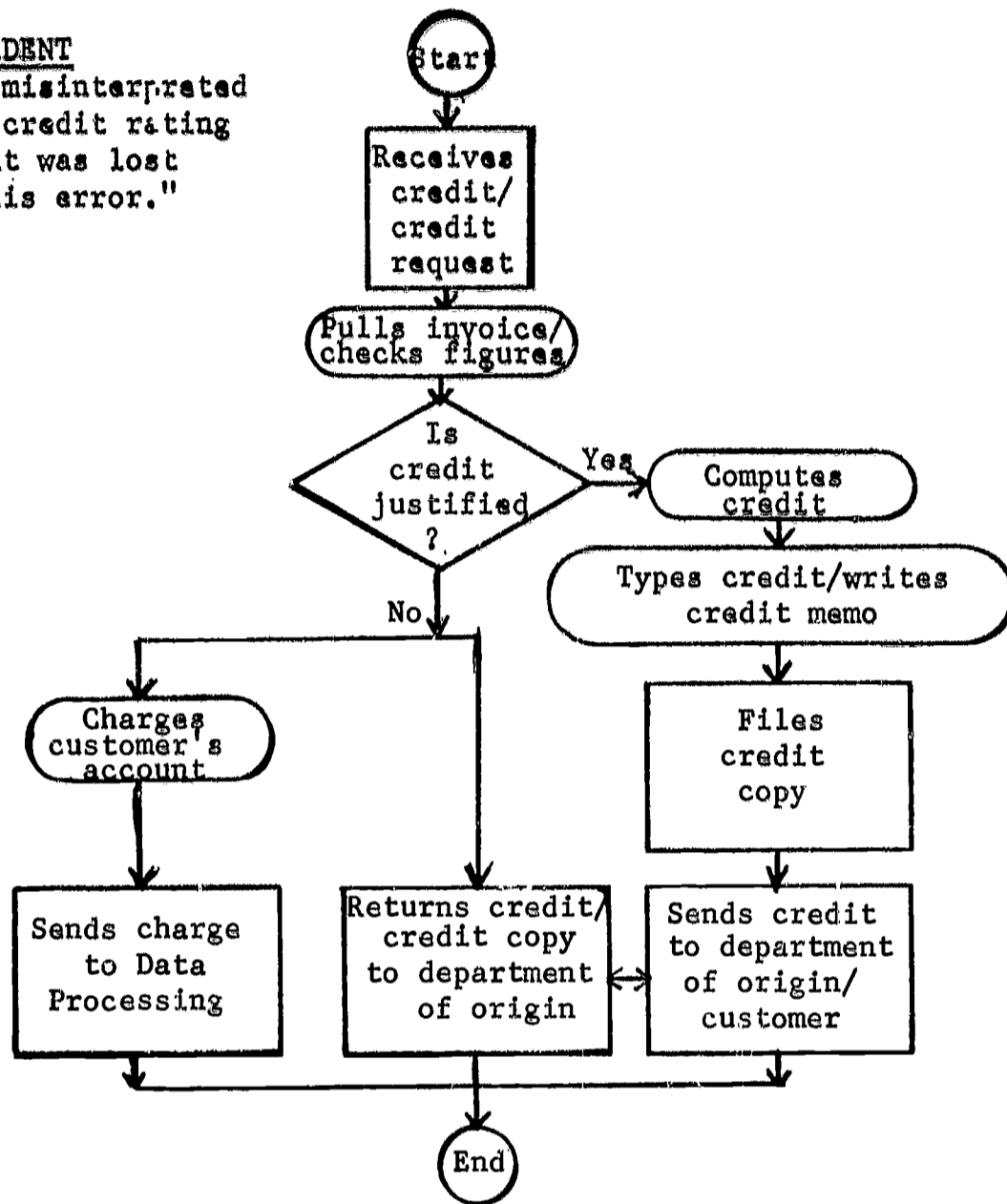
Notifies branch office to release, hold, or return order

Sends letter to customer extending or refusing credit

6. GIVEN CREDITS OR CREDIT REQUESTS, THE WORKER ACCEPTS OR REFUSES CREDIT TO CUSTOMER'S ACCOUNT. (5 task sheets)

CRITICAL INCIDENT

"The employee misinterpreted a customer's credit rating and an account was lost because of this error."



SUPPLEMENTARY STEP: Adjusts old credit memos against old invoices

7. GIVEN AN INCOMING PHONE CALL FROM A CUSTOMER REQUESTING INFORMATION ON HIS CHARGE ACCOUNT BILLING, THE WORKER ANSWERS THE CUSTOMER'S QUESTIONS. (2 task sheets)

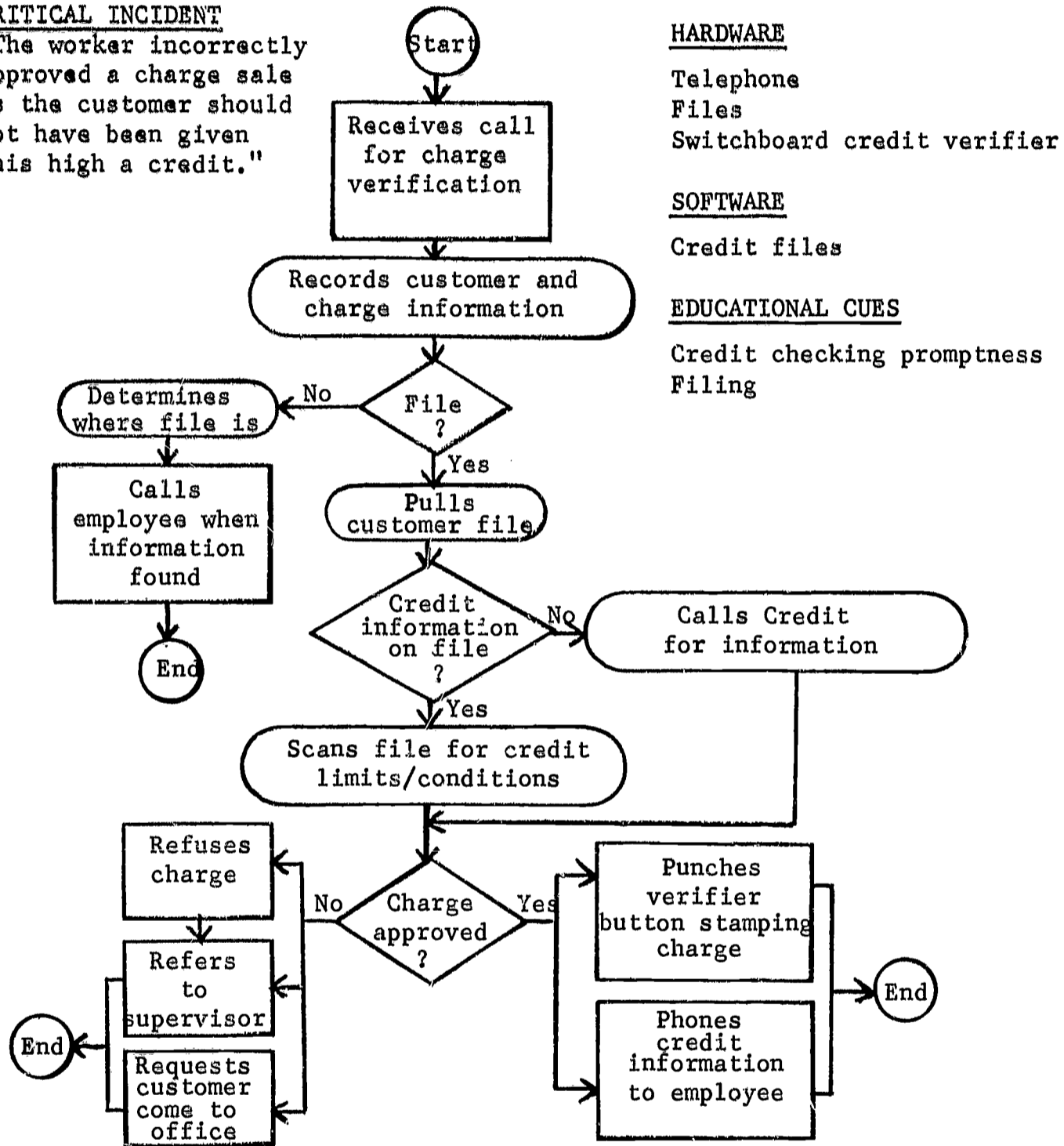
Receives charge billing call  
Informs customer of breakdown on outstanding balance  
Calls or writes branch if customer has additional questions  
Calls customer when account question/error is solved  
Records disposition of call

8. GIVEN A COMPUTER PRINTOUT SHEET ON NEWSBOYS, AMOUNT OF PAPER SOLD, AND CASH RECEIPTS TURNED IN, THE WORKER COMPILES DELINQUENT RECEIPTS REPORT. (1 task sheet)

9. GIVEN A CALL REQUESTING CREDIT VERIFICATION ON A CUSTOMER'S PURCHASE, THE WORKER CHECKS CREDIT LIMITS, CONDITIONS AND NOTIFIES CALLER OF ACCEPTANCE/REJECTION OF CREDIT. (8 task sheets)

CRITICAL INCIDENT

"The worker incorrectly approved a charge sale as the customer should not have been given this high a credit."

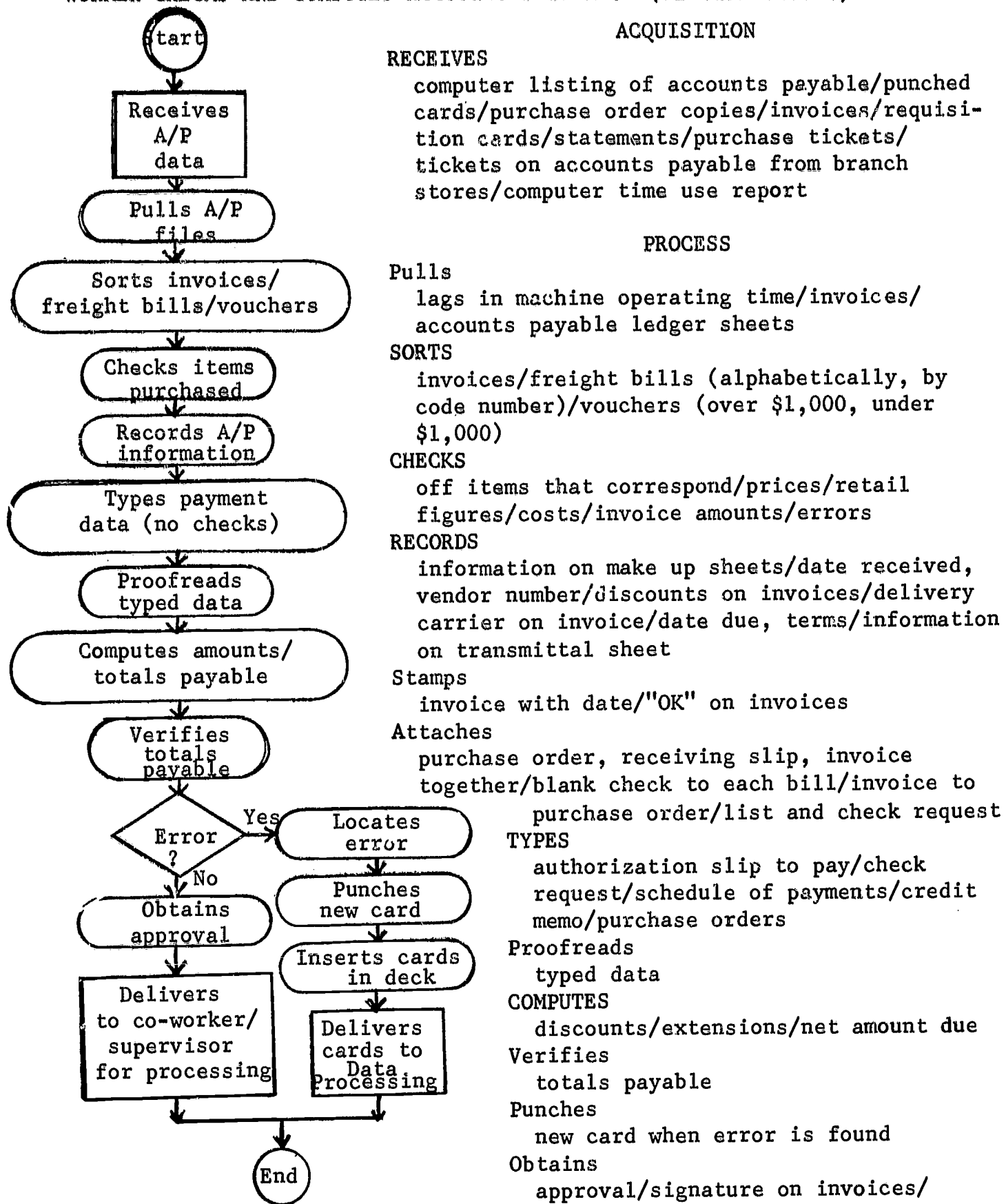


REPORTED CRITERIA: "Accuracy in transmitting information; Accuracy is important to prevent a customer from overcharging; Swift in locating desired customer account card in file so as not to keep customer and sales person waiting at counter"

10. GIVEN A WIRE REQUESTING COMPANY TO ISSUE A CHECK TO CUSTOMER ON AMOUNT CREDITED TO CUSTOMER'S ACCOUNT, THE WORKER CHECKS IF CUSTOMER HAS CREDIT FOR THAT AMOUNT AND WIRES BRANCH TO PAY OR NOT TO PAY CUSTOMER. (1 task sheet)

1.8 ACCOUNTING, ACCOUNTS PAYABLE (PURCHASING ACCOUNTING)

1. GIVEN SOURCE DOCUMENTS SUCH AS PUNCHED CARDS, STATEMENTS, INVOICES, THE WORKER CHECKS AND COMPUTES ACCOUNTS PAYABLE. (52 task sheets)



ACQUISITION

RECEIVES

computer listing of accounts payable/punched cards/purchase order copies/invoices/requisition cards/statements/purchase tickets/tickets on accounts payable from branch stores/computer time use report

PROCESS

Pulls

lags in machine operating time/invoices/accounts payable ledger sheets

SORTS

invoices/freight bills (alphabetically, by code number)/vouchers (over \$1,000, under \$1,000)

CHECKS

off items that correspond/prices/retail figures/costs/invoice amounts/errors

RECORDS

information on make up sheets/date received, vendor number/discounts on invoices/delivery carrier on invoice/date due, terms/information on transmittal sheet

Stamps

invoice with date/"OK" on invoices

Attaches

purchase order, receiving slip, invoice together/blank check to each bill/invoice to purchase order/list and check request

TYPES

authorization slip to pay/check request/schedule of payments/credit memo/purchase orders

Proofreads

typed data

COMPUTES

discounts/extensions/net amount due

Verifies

totals payable

Punches

new card when error is found

Obtains

approval/signature on invoices/initials

DISPOSITION

DELIVERS

punched cards/vouchers/to Data Processing/accounts payable data to co-worker/supervisor

SUPPLEMENTARY STEP: Photocopies transmittal sheet and bill



HARDWARE

Typewriter  
 Adding machine (10-key)  
 Calculator  
 Hand stamp

SOFTWARE

Catalog  
 Accounts payable  
 documents  
 Code book

EDUCATIONAL CUES

Computational skills  
 Accuracy  
 Checking  
 Typing  
 Filing

REPORTED CRITERIA: "Must be exact and accurate; Aptitude with figures is essential; Must have the ability to reason well and be good in math; Knowledgeable in filing procedures; Correct typing of prices and shipping destination; Good handwriting; High accuracy in transferring figures; Work under pressure; Decimal placement is very important; Some knowledge about book-keeping; Check numbers carefully; Understand percents and discounts; Add, subtract, multiply, and divide easily; Should take pride in work done; Ability to withstand monotonous repetitive work"

2. GIVEN SOURCE DOCUMENTS SUCH AS INVOICES, BILLS, VOUCHERS, THE WORKER TYPES ORDERS AND CHECKS FOR ACCOUNTS PAYABLE. (16 task sheets)

## ACQUISITION

## RECEIVES

invoices/freight bills/vouchers/refund slips/factory orders/letters/  
 delivery receipts

## Obtains

sheet of account numbers/statements/invoices/numbered checks/requisition/  
 vendor activity ledger/stock record book/check request for purchase order

## PROCESS

## SORTS

purchase orders

## CHECKS

information on accounts payable source documents/checks for due date/  
 appropriation ledger to see if there are sufficient funds available/  
 vendor number/items and prices on purchase orders and invoices/totals on  
 all checks

## RECORDS

essential information concerning amount and bank on voucher and check  
 register sheet/amount to be billed on check/accounts numbers/codes

## Stamps

check number on voucher/voucher for distribution

## Writes

"Void" on check

## TYPES

checks, check stubs, disbursement reports, envelopes, check request form

## Totals

all checks written/check requests

## Attaches

copy of check to statement/original order and file copy/check request form  
 to letter

## DISPOSITION

## MAILS

checks

## DELIVERS

accounts payable data to bookkeeper/accounting manager/travel clerk/  
comptroller

## FILES

carbon copies of checks/purchase orders/purchasing data

SUPPLEMENTARY STEP: Photocopies distribution reportHARDWARETypewriter  
Check proof machine  
StampSOFTWAREChecks  
Accounts payable  
documents  
Check stubsEDUCATIONAL CUESAccuracy  
Statistical typing  
Coding  
Proofreading  
CheckingREPORTED CRITERIA: "Accurate payment of bills; Checks typed with no errors; Accurate reading ability is essential; Knowledge of codes for each bank with which the company has accounts; Extreme care in checking details"

3. GIVEN SOURCE DOCUMENTS SUCH AS INVOICES, PURCHASE ORDERS, BILLS, THE WORKER RECORDS AND POSTS ACCOUNTS PAYABLE. (30 task sheets)

## ACQUISITION

## RECEIVES

packing slips/copies of all checks typed, signed/requisitions, bills/  
invoices/purchase orders/punched cards from Data Processing

## PROCESS

## Pulls

creditors accounts payable ledger, invoices

## CHECKS

all payment totals/receiving report, purchase order

## TYPES

letter/envelopes

## RECORDS

totals on summary sheet/invoice dates/invoice numbers, dates, amounts, price  
changes, costs on card system/rental of equipment

## Posts

amounts on ledger sheet with bookkeeping machine

## Stamps

requisitions, bills with date

## Codes

requisitions, bills

## Punches

amounts on checks/on requisitions, bills using perforating machine

**COMPUTES**

all payment totals/discounts/extensions  
**Attaches**  
 invoice to purchase order/packing slip to invoice

**DISPOSITION****FILES**

copies of requisitions, bills, invoices, ledger sheets alphabetically  
**DELIVERS**

invoices to shipping clerk  
**Sends**  
 invoices copy to recipient  
**Distributes**  
 materials to designated persons

**SUPPLEMENTARY STEP:** Obtains supervisor's signature on checked invoices received

**HARDWARE**

Perforating machine  
 Adding machine (10-key)  
 Bookkeeping machine  
 Typewriter  
 Hand stamp  
 Calculator  
 Files

**SOFTWARE**

Code book  
 Envelopes  
 Requisitions, bills  
 Price lists  
 Cards  
 Invoices

**EDUCATIONAL CUES**

Accuracy  
 Coding  
 Computational skills  
 Checking  
 Filing  
 Typing

**REPORTED CRITERIA:** "Balances daily; Some bookkeeping knowledge; Corrects all errors; Completes work same day as receives; Uses care in matching and filing; Technical vocabulary; Efficiency and promptness; Keeps work up to date"

**ACCOUNTS PAYABLE CRITICAL INCIDENTS**

"The job that the employee filled had been vacant for over a month. She was able to check a pile of invoices against the accounts payable ledger quickly and accurately. A bottleneck was alleviated and work began to flow once again."

"In the job of Accounts Payable Clerk she requires close supervision. Recently it was discovered that she had put some problem files in the bottom of her work tub. Some of these dated back a year so they were among the first ones she received when she started the job. She apparently did not know what to do with the particular discrepancy and she did not want anyone to know that she did not understand the work."

"The worker misplaced a payment voucher. Upon inquiry from the vendor as to whether or not the company had paid, the error was brought out. This caused the company to lose a discount."

"Last month the employee noticed an accounts payable check which had not yet been mailed, her prompt attention to this matter saved the company eight hundred dollars."

1.9 ACCOUNTING, AUDITING AND CHECKING

1. GIVEN SOURCE DOCUMENTS SUCH AS SALES, PURCHASING, AND TAX REPORTS AND FORMS, THE WORKER CHECKS THE ACCURACY OF THE FORMS. (24 task sheets)

HARDWARE

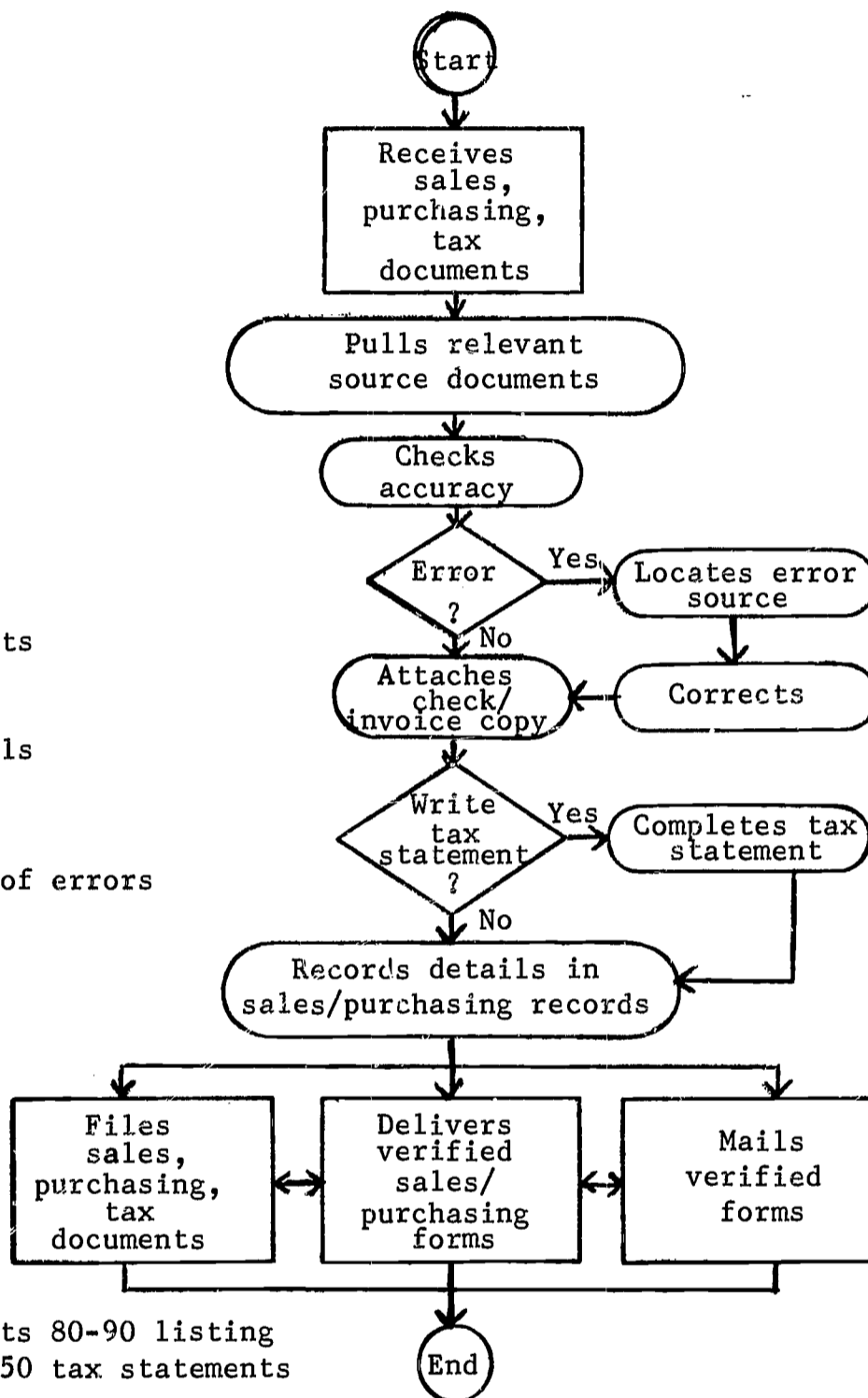
Calculator  
Adding machine (10-key)  
Listing adding machine  
Files

SOFTWARE

Statistical tables  
Tax statements  
Sales tickets  
Daily sales reports  
Hotel guest folios  
Computer printouts  
Invoices, vouchers  
Ledger cards, job orders  
Bills of lading, manifests  
Checks, credit memos  
Telephone bills  
Log of long distance calls

EDUCATIONAL CUES

Location and correction of errors  
Computational skills  
Filing



REPORTED CRITERIA: "Posts 80-90 listing pages per day; Handles 150 tax statements per month"

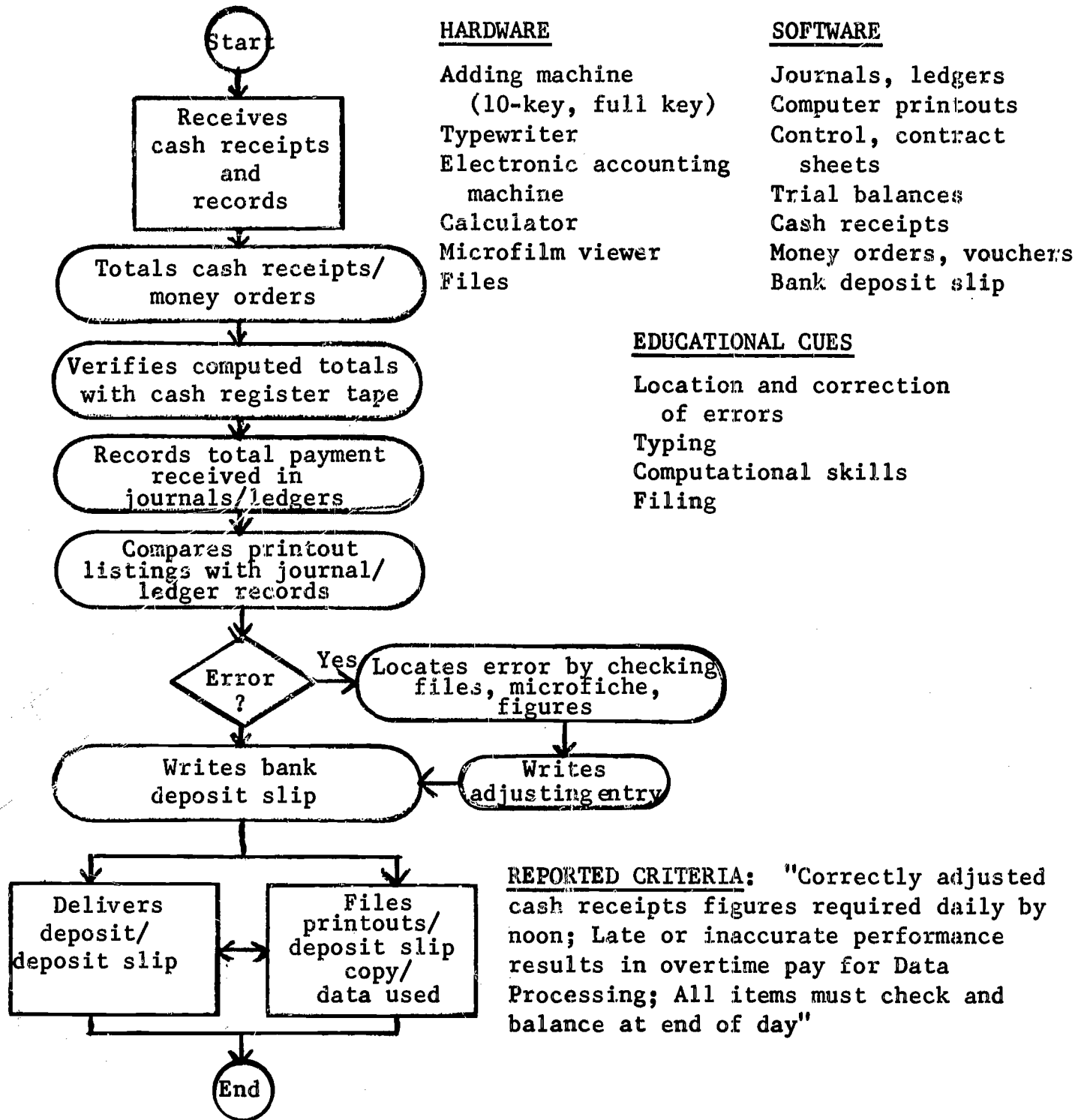
CRITICAL INCIDENTS

"Last week while verifying the checks written to vendors, she found a mistake on a check written for \$3,000 instead of \$30 (the correct amount). She issued a new check, and sent the necessary papers to Data Processing with instructions.

"A memo didn't contain the name of the department and both the employee and supervisor were unable to read the source. The employee could have checked with each merchandiser but this would have been a waste of their time. Instead, the employee went to the central file and checked through each merchandiser's book until she found the necessary information."



2. GIVEN CASH RECEIPTS AND RECEIVABLES RECORDS, THE WORKER VERIFIES AMOUNTS RECEIVED AND BANKS CASH RECEIPTS. (18 task sheets)



HARDWARE

Adding machine  
(10-key, full key)  
Typewriter  
Electronic accounting machine  
Calculator  
Microfilm viewer  
Files

SOFTWARE

Journals, ledgers  
Computer printouts  
Control, contract sheets  
Trial balances  
Cash receipts  
Money orders, vouchers  
Bank deposit slip

EDUCATIONAL CUES

Location and correction of errors  
Typing  
Computational skills  
Filing

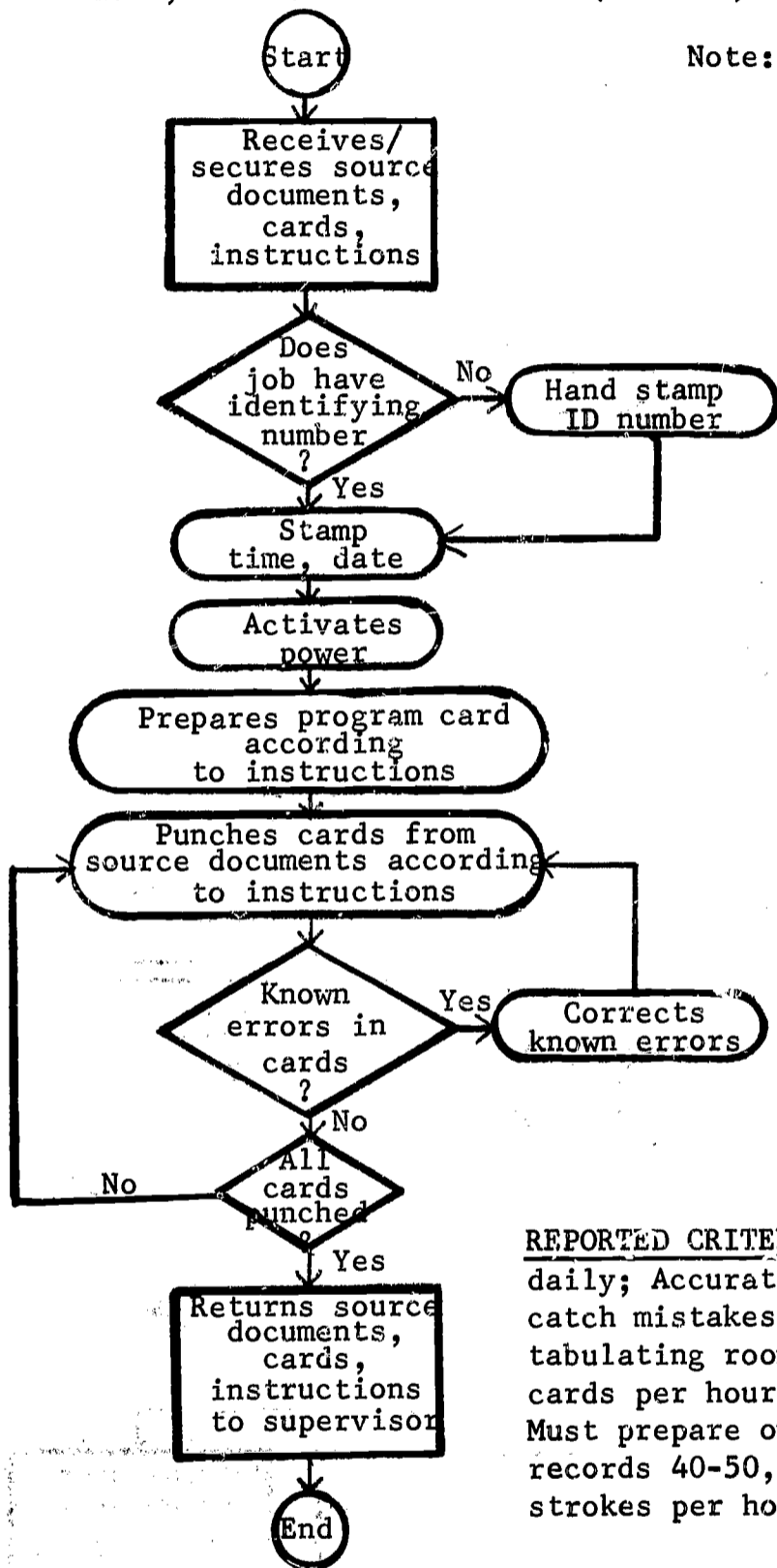
REPORTED CRITERIA: "Correctly adjusted cash receipts figures required daily by noon; Late or inaccurate performance results in overtime pay for Data Processing; All items must check and balance at end of day"

AUDITING AND CHECKING CRITICAL INCIDENT

"Last fall, a check had the wrong vendor number on it and was sent to the wrong person. That person cashed it and placed it in a savings account. We are still trying to get the money back. She did not match the name of the check with the name of the vendor."

2.1 ELECTRONIC DATA PROCESSING, KEYPUNCHING, VERIFYING

1. GIVEN SOURCE DOCUMENTS SUCH AS INVOICES, ORDERS, TIME CARDS AND INSTRUCTIONS, THE WORKER KEYPUNCHES (PUNCHES) CARDS. (96 task sheets)



Note: Hardware, Software, Educational Cues listed below refers to any/all Performance Goals in this area.

HARDWARE

Keypunch (printing, other)  
Files  
Keytape machine

SOFTWARE

Coding sheets  
Company source documents  
(payroll, accounting, purchasing, production, shipping, receiving, etc.)  
Punch cards  
Punch tape

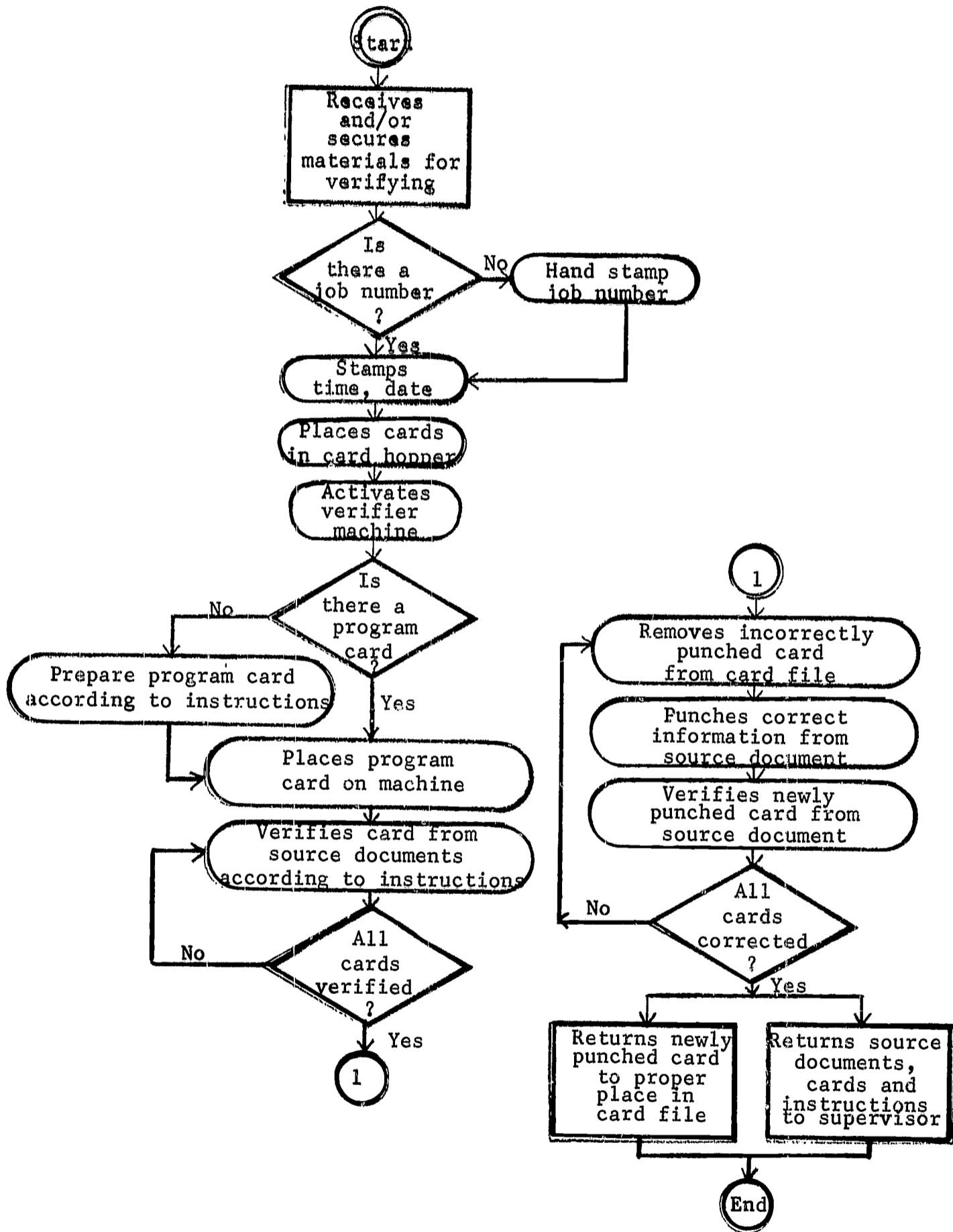
EDUCATIONAL CUES

Operate keypunch/keytape machine  
Data processing terminology, languages  
Accuracy  
Speed  
Technical terminology (banking, medical, etc.)  
Contends with high-noise level  
Organizes work logically

REPORTED CRITERIA: "Punches 800-1,000 documents daily; Accurate because knows verifier will catch mistakes; Time pressure; Understands tabulating room work flow; 400-500 numerical cards per hour, 300-400 alphabetical cards; Must prepare own program cards; Average day records 40-50,000 keypunching strokes; 1,000 strokes per hour"

SUPPLEMENTARY STEPS: Selects proper color coded punch cards; Consults code book; Punches clock in and out for each new job; Records time spent on each job; Boxes, bundles finished punched cards, labels boxes

2. GIVEN KEYPUNCHED CARDS AND SOURCE DOCUMENTS, THE WORKER OPERATES A VERIFIER TO CHECK THE KEYPUNCH OPERATOR. (20 task sheets)



3. GIVEN SCHOOL REPORTS, THE WORKER CODES REASON FOR SCHOOL WITHDRAWAL AND PUNCHES CARD INDICATING WITHDRAWAL. (1 task sheet)
4. GIVEN WORK SELECTED AT RANDOM, THE WORKER PERFORMS QUALITY CONTROL CHECKS ON THE OPTICAL-FONT PRINTING ADDING MACHINE OPERATOR'S TAPE PRODUCTION. (2 task sheets)
5. GIVEN UP-TO-DATE KEYPUNCHING JOBS, THE WORKER OPERATES OPTICAL SCANNER BI-WEEKLY FOR PAYROLL PRINTOUT. (2 task sheets)
6. GIVEN CARDS PUNCHED EARLIER WITH VERIFIER DISCOVERED ERRORS, THE WORKER DUPLICATES CARD TO VERIFIER NOTCH, REFERS TO SOURCE DOCUMENT, KEYPUNCHES CORRECTION, AND RETURNS TO VERIFIER. (7 task sheets)
7. GIVEN SOURCE DOCUMENTS, THE WORKER OPERATES A KEYSOURCE MACHINE PUNCHING MAGNETIC TAPE. (8 task sheets)

2.2 ELECTRONIC DATA PROCESSING--SORTING, INTERPRETING,  
COLLATING, REPRODUCING, TABULATING

Note: Hardware, Software, Educational Cues listed below refers to any/all Performance Goals in this area.

HARDWARE

IBM 029 card punch  
083, 83, 804 sorter  
557 interpreter  
519 reproducer  
188 collator  
402 accounting machine  
1287 optical scanner  
Flexowriter  
Control boards

SOFTWARE

Punched cards  
Equipment operations manual  
Tape  
Source documents  
Magnetic disks

EDUCATIONAL CUES

Operating unit record equipment  
Data processing terminology

8. GIVEN PUNCHED CARDS RELATING TO PAYROLL, DISBURSEMENT ACCOUNTING, INVENTORY, PRODUCTION, MONEY ORDERS, INVESTMENT CERTIFICATES, STUDENT CARDS, THE WORKER OPERATES UNIT RECORD EQUIPMENT INCLUDING THE SORTER, REPRODUCER, COLLATOR, INTERPRETER. (22 task sheets)

Determines first job number from daily job schedule

Receives punched cards, instructions

Records job number, time on machine usage form/personal activity form

Wires panel if necessary or

Places prewired panel in unit record equipment

Places punched cards, blank cards (if necessary) in unit record equipment

Activates machine

Places punched cards in boxes/bundles/batches according to directions

Records time in machine usage log/form/time card



SUPPLEMENTARY STEPS: Mails sorted cards to salesman, places heading card in front of deck; Unmatched cards (collator operation) must be checked; Key-punches card for new account; Reproduces non-sortable cards

REPORTED CRITERIA: "Must keep keypunch card files separate for each job, must complete jobs quickly to free machine for other operators; Must make decisions on job priorities; Completes all work daily; Must have technical vocabulary"

9. GIVEN ACCOUNT STATEMENTS, PRODUCTION FIGURES, INVENTORY LISTINGS, PUNCHED CARDS, WIRED OR UNWIRED BOARDS, THE WORKER OPERATES AN ACCOUNTING (TABULATING) MACHINE TO GET REQUESTED TOTALS, LISTINGS, REPRODUCIBLE RECORDS. (5 task sheets)
10. GIVEN SALES SLIPS, TEST PAPERS, OTHER PRINTED DATA, THE WORKER OPERATES OPTICAL SCANNING EQUIPMENT TO CONVERT PRINTED DATA TO PUNCHED DATA FOR FURTHER PROCESSING. (4 task sheets)
11. GIVEN TAPES NOT CARRYING BALANCES FROM OPTICAL-FONT PRINTING ADDING MACHINE OPERATORS, THE WORKER LOCATES ERRORS, CORRECTS/ENTERS ADJUSTING AMOUNT ONTO COMPUTER INPUT TAPE. (1 task sheet)

### 2.3 ELECTRONIC DATA PROCESSING, CODING

12. GIVEN SOURCE DOCUMENTS SUCH AS PURCHASE ORDERS, INVOICES, AND APPLICATIONS, THE WORKER CODES THE FORMS IN PREPARATION FOR KEYPUNCHING. (44 task sheets)

Receives budget figures/purchase orders/loan application forms/resumes/work orders/policy cancellations/new customer accounts/invoices/bank notes/charge payments/deposits, withdrawals

Computes number that will be coded

Determines appropriate code by checking manual, listing, geographic location

Writes code number on source document/coding sheet

Sorts source documents

Photocopies coded invoice/purchase order

Delivers purchase orders to Auditing/source documents to originating department

Delivers coded material to Key punching

SUPPLEMENTARY STEPS: Determines new code if necessary and adds to master code; Types index cards; Transfers printout data to journal accounts; Calls originating department for missing code; Stamps date, time on source documents received; Codes computer program from flowchart

#### HARDWARE

Coding pencils  
Typewriter  
Adding machine (10-key)  
Coding machine

#### SOFTWARE

Coding sheets  
Business source documents  
Coding manuals/listings

#### EDUCATIONAL CUES

Checking, completeness  
Coding  
Penmanship  
Typing  
Good memory  
Specialized terminology (insurance)

REPORTED CRITERIA: "Accuracy checked as computer will reject errors; Good proofreading; Data must be sorted properly before it can be coded; Quality of work and not quantity is important; Codes 15 to 50 budget documents daily each taking 1-3 minutes"

CODING CRITICAL INCIDENTS

"Initially, the worker misread the codebook and miscoded some new loans. The loans were rejected by the computer and the error had to be corrected."

"In coding a re-insurance entry, the worker found the policy incorrectly written up, notified me, and saved us a lot of error time."

"Because an order for a large quantity of merchandise was coded incorrectly, the incorrect merchandise was returned at company expense."

"Transposing just two numbers in a code tied us up all day yesterday."

2.4 ELECTRONIC DATA PROCESSING--COMPUTER OPERATION

Note: Hardware, Software, Educational Cues listed below refers to any/all Performance Goals in this area.

HARDWARE

IBM 1401, 1440, (360/30, 40, 50, 65-67),  
2701-2702-2741  
Teletype 033-035, 1050  
Decollator  
Keypunch IBM 029  
Burster  
Converter  
Data speed machine  
Tape punch/reader/printer  
Honeywell 1400, 2200  
Check sorter (IBM 803)  
Burroughs 2500, 3500, 6500  
Stapler  
Emulator 7044  
NCR 395  
UNIVAC

SOFTWARE

Punched cards  
Paper tape  
Magnetic tape  
Computer operations manuals  
Machine usage log  
Source documents i.e., payroll,  
financial, production

EDUCATIONAL CUES

Organizes work  
Observes schedules  
Operates hardware  
Technical language

13. GIVEN INSTRUCTIONS, PUNCHED CARDS, AND A COMPUTER, THE WORKER REPRODUCES KEYPUNCH CARDS, MAKES PRINTED LISTS, AND PUNCHES A SUMMARY CARD OF EACH PART OF A JOB. (35 task sheets)

Receives keypunch cards from Key punching/tape from library

Scans work request card describing job

Obtains punched program card deck from file in Data Processing

Reads instructions on program card deck

Places program card deck in computer with the input (keypunch cards needed for the job)/mounts tapes in computer

Checks machine for the correct print-out paper, keypunch cards, carriage tape, and signal switch, which indicates if the previous job is completed

Activates start button on card reader on computer

Checks control panel for indication that job is completed

Removes printed output paper/punched cards/labels/paper tape/magnetic tape/output

Delivers the output (printed output paper and/or punched cards) from computer to person requesting job

Files computer program keypunch card deck numerically in computer center

SUPPLEMENTARY STEP: Checks to see what went wrong--card jams, computer unable to read a particular card--if computer halts in the middle of a job

REPORTED CRITERIA: "Must be able to follow a set procedure on a computer; Jobs must be run to satisfaction of individual bringing job to computer; Decides which jobs are to be run first; Must re-run jobs containing errors"

14. GIVEN INSTRUCTIONS FROM COMPUTER OPERATED TYPEWRITER, THE WORKER MOUNTS MAGNETIC TAPES ON A COMPUTER TAPE DRIVE. (4 task sheets)

Receives instructions from computer operated typewriter as to when a magnetic tape is required for a job being run

Obtains correct tape from tape librarian as per computer instructions

Mounts tape on one of the tape drives as instructed

Types in start-up message into typewriter console

Receives message on typewriter when the computer is finished with tape

Removes tape from tape drive

Delivers used tape to library area to be logged in

Returns to mount other tapes as directed by computer

REPORTED CRITERIA: "Must move fast and get the right tapes on at the proper time in order not to delay the computer; Must understand the technical language and terms printed by the computer"

15. GIVEN PAYROLL TAPES, THE WORKER PREPARES THE WEEKLY PAYROLL ON THE COMPUTER. (4 task sheets)

Receives tapes

Places tapes on tape drives on computer

Receives balanced punched card containing changes

Places punched cards in card reader hopper

Activates button to start records tape on payroll number

Removes cards from computer

Places cards in tray to go to payroll

Activates start button to sort the record tape in employee sequences, to update master payroll records, and to generate payroll check tape

Removes payroll check tape

Delivers payroll check tape to another computer to write checks

Removes tapes

Delivers tapes to library

16. GIVEN COMPUTER OUTPUT, THE WORKER DECOLLATES, BURSTS, AND BINDS COMPUTER OUTPUT. (6 task sheets)

Determines date report is to reach customer when report has been completed by computer

Operates machine for decollating (removing carbon paper)

Operates machine for bursting (separating pages)

Binds booklets (mechanically/manually) according to customer's order

17. GIVEN BATCHES OF CHECKS, THE WORKER SORTS CHECKS BY COMPUTER. (2 task sheets)

Obtains batches of checks, laid out on trays, separated by divider tickets indicating sub-totals of each batch, along with cash letters which indicate end of blocks

Programs computer for upcoming operation

Feeds checks into sorter by block

Binds 250 checks at time from individual pockets

Places bundles in trays as to bank of origin, using given code

Delivers trays on cart to Outgoing Batching Department as each block is completed

Requests cash letter from computer at end of day

Delivers cash letter to Outgoing Batching Department for balancing with individual banks' cash letters

Activates computer to clear

REPORTED CRITERIA: "Alert at all times; Ability to program and operate computer; Familiarity with banking terminology is required; Approximately 1,000 checks are sorted per minute"

18. GIVEN INSTRUCTIONS FOR PROCESSING PROGRAMMED DATA, THE WORKER PERFORMS THE BEFORE AND AFTER TASKS INVOLVED IN OPERATING ELECTRONIC COMPUTERS AND PERIPHERAL EQUIPMENT. (3 task sheets)

Checks schedule of customers for shift's processing

Discusses special instructions/techniques with customers/programmer when required

Receives turnover of jobs in process from first shift operator

Checks area for cleanliness

Checks all Input/Output devices for satisfactory operation

Checks programmed operating instructions for correct input to computer and peripheral equipment

19. GIVEN SOURCE DOCUMENTS AND COMPUTER OUTPUT, THE WORKER BALANCES MANUALLY PREPARED TOTALS WITH COMPUTER DETAILED TOTALS. (4 task sheets)

20. GIVEN A DATA SPEED MACHINE, PUNCHED TAPE OUTPUT AND A CONVERTER, THE WORKER WILL TROUBLE TEST TAPES TO CHECK ACCURACY OF SENDING INSTALLATION. (1 task sheet)



21. GIVEN PUNCHED CARDS FOR COMPUTER INPUT, THE WORKER PLACES CARDS IN TRAYS, WRITES COMPUTER RUN SLIP, AND DELIVERS TO COMPUTER. (2 task sheets)
22. GIVEN A SITUATION WHERE A COMPUTER MALFUNCTIONS, THE WORKER RUNS DIAGNOSTICS TO DETERMINE CAUSE OF ERROR AND DELIVERS DIAGNOSTICS TO COMPUTER ENGINEERS. (2 task sheets)

### 2.5 ELECTRONIC DATA PROCESSING--COMPUTER PROGRAMMING

Note: Hardware, Software, Educational Cues, and Reported Criteria listed below refers to entire area of Computer Programming.

#### HARDWARE

Computers: IBM 360/20, 30, 40, 50,  
65-67  
Remote terminal system  
Unit record equipment

#### SOFTWARE

Computer input sheets  
Computer reference manuals  
Previously tested programs  
Computer languages: COBOL, FORTRAN,  
SPS, DOS, 1401, Autocoder, 360  
assembly  
Coding sheets

#### EDUCATIONAL CUES

Flowcharting  
Analyzing problems  
Computer languages  
Computer programming terminology  
Keypunching  
Logical reasoning  
Unit record equipment operation

REPORTED CRITERIA: "High degree of technical skills needed especially: logic, accuracy, computer language; Task is successful when job run completes without error; Delays occur if program isn't written quickly; Skill in flowcharting; Writes about one long program a month; Algebra, geometry helpful"

23. GIVEN COMPUTER ACCEPTING PROGRAM, THE WORKER TESTS THE PROGRAM ON COMPUTER WITH ACTUAL DATA. (4 task sheets)

Receives program without error from Computer Operations  
Obtains sample of data that will be used when program actually is in operation (If there is no sample data (obtained from department that requested program) programmer makes up data that is like actual)  
Checks that data covers all possible conditions  
Sends program and data to computer for test run  
Tests on computer until satisfied that program works correctly  
Revises and analyzes problems if any error or output not as specified

24. GIVEN THAT PROGRAM TESTS CORRECTLY, THE WORKER DOCUMENTS THE PROGRAM (PUTS INTO FINISHED FORM). (3 task sheets)

Receives program with note that it works satisfactorily  
Writes up operating instructions (for Computer Operations) by filling in pre-printed forms that tell when and how program to be run on computer, i.e.,

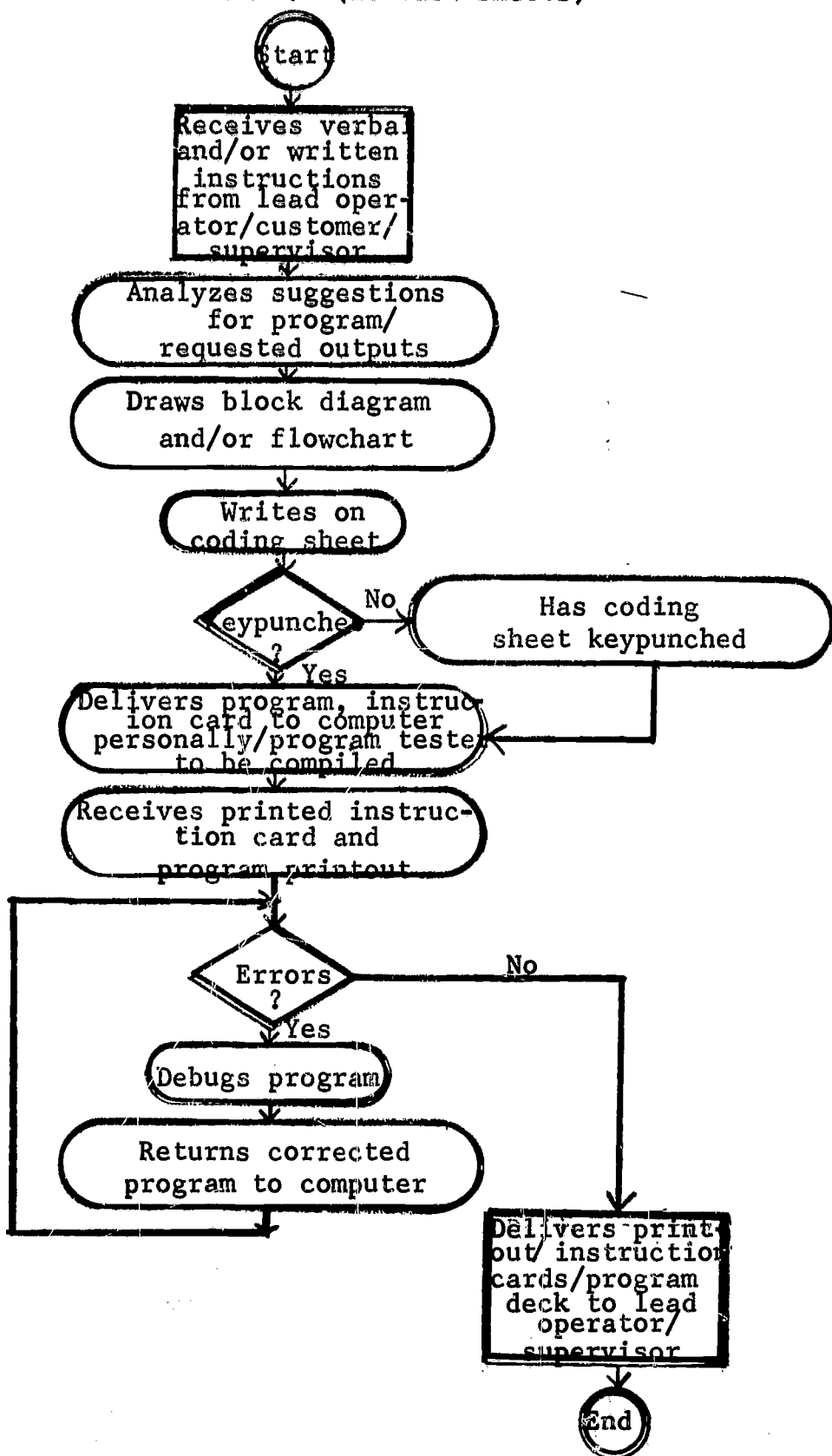
where to get input, how often to run, etc.

Writes up a paragraph or two that explains the purpose of the program, what is happening in program

Prepares a formal flowchart

Delivers to supervisor to be filed with other documentations

25. GIVEN A REQUEST TO WRITE A PROGRAM, THE WORKER ANALYZES, WRITES, AND DEBUGS PROGRAM. (18 task sheets)



26. GIVEN A REQUEST TO CHANGE AN EXISTING PROGRAM, THE WORKER CHANGES EXISTING COMPUTER PROGRAMS AS CIRCUMSTANCES DICTATE. (1 task sheet)

Receives request to make change from supervisor  
Discusses orally with supervisor method of accomplishing request  
Codes approved solution  
Tests and corrects solution  
Writes change

SUPPLEMENTARY STEP: Calls user representative if necessary when coding

27. GIVEN A NUMBER OF A PROGRAM BY SUPERVISOR, THE WORKER MAKES PRESCRIBED CHANGES TO COMPUTER PROGRAM TO BE COMPATIBLE TO NEW COMPUTER. (1 task sheet)

Receives program number of program to be changed from supervisor  
Pulls program from file cabinet  
Checks list of changes to be made  
Codes changes on program coding sheet  
Keypunches changes on punched cards or gives to keypunch operator  
Replaces change cards for old cards in program  
Delivers to computer operator to be run on computer  
Files program with changes back into file cabinet according to program number

SUPPLEMENTARY STEP: Makes additional changes if program shows errors (does not compile) after being run on computer

28. GIVEN A REQUEST TO WRITE A PROGRAM, THE WORKER DEVELOPS A TIME SCHEDULE FOR A PROGRAM. (1 task sheet)

Receives request from supervisor or department head to write a program  
Plans a time schedule for the steps to be taken in preparing that program  
Handwrites a tentative time schedule  
Submits time schedule to supervisor

## 2.6 ELECTRONIC DATA PROCESSING, RELATED

29. GIVEN VARIOUS MATERIALS SUCH AS COMPUTER PRINTOUTS/FILES/ACCOUNTING FORMS/MANUALS/MAPS/INSTRUCTIONS, THE WORKER PERFORMS TASKS RELATED TO ELECTRONIC DATA PROCESSING. (22 task sheets)

### ACQUISITION

#### RECEIVES

computer printout of daily production/"paid-in-full" sheet from computer room/reorder tickets from Data Processing/weekly accumulative computer printout of production/basic contract/booklet/claim form/client file/coding manuals/customer invoice/distribution list/insurance applications/invoices/maps/modification information/new program documentation/photocopies of report/purchase order for Data Processing/production control sheet/draft of wire/report/request for repair/requisition/rough draft of technical write-up/

shipping tickets/symbol instructions/tab listings, work orders/warranty books/telephone inquiries/copies of ID card from computer service/work sheet/preassembled cards

#### PROCESS

##### SORTS

cards/purchase orders/renewal sheets requisitions/service orders

##### Assigns

number to modification form

##### Pulls

payment cards/previous month's production report

##### Instructs

employees in coding method/MTST on set up

##### Answers

students questions

##### Codes

claim information for processing/information onto application form/job contracts/materials on composer/service orders/wire

##### Compares

invoices with shipping tickets by serial numbers/serial numbers with listing of card/totals with printout

##### CHECKS

master file with new documentation/overdue accounts/students' work/panel for input information stock numbers and amounts/units and stock code numbers

##### Scans

booklet

##### COMPUTES

measure count with slide rule/book value of stamps/requisition groupings/daily report/invoice amounts

##### Counts

units for tab set

##### Arranges

repair service schedule

##### Draws

lines to define areas on map with colored pencils/symbols with typits and templates

##### TYPES

booklet/draft of write-up/ID card/envelopes from distribution list/information on cards from work sheet/invoice information on card/label for card/modification of program/information from production control sheet on liquid process master/material on composer/MTST/new program documentation

##### RECORDS

computer information on typing request/book orders for service/cross-reference invoices, shipping tickets/daily production figures/premium/insurance premium/stock numbers/purchase order by vendor, date, and price

##### Posts

stock number, serial number, invoice number to order book

##### Removes

outdated cards from bulletin board

##### Stamps

date on each card/"paid-in-full" on payment card



**Writes**

bill for renewal/code on renewal slip/code, date, account number on adding machine tape/order prices on invoices/street name and number on 3x5 card from map/unit number and code number/units and stock code numbers on requisition

**Corrects**

all purchase order differences

**Proofreads**

booklet/liquid process master/modification form/rough draft of write-up

**Verifies**

claim/invoice amounts with reorder tickets

**Attaches**

bill for payment of premium to file/copy of wire to message/correct forms to application/label to card/MTST tapes to machine/renewal slip to bill

**Batches**

claims for keypunching/invoices/3x5 cards by street name

**Collates**

booklet

**Obtains**

approval of booklet/draft of publication/approval of modification form

**DUPLICATES**

copies of program documentation/production report

**DISPOSITION****CALLS**

engineer to pick up report

**DELIVERS**

cards to another worker/cards to Keypunching/file to supervisor/final copy of report/master to Duplicating/message copies to sender/typing request to supervisor

**Sends**

booklet to print shop for copies/cards to tab room/ID tabs to other departments/purchase orders, invoices to Data Processing for computer input/invoices to Production/modification form to print shop/program documentation to users/renewal slip, bill to Shipping/tapes, requisition to Keypunching/teletype wire

**Distributes**

copies of booklet/modification form to Personnel/report photocopies

**FILES**

car cards/current reports/invoices/master copy of modification/returned requisitions/shipping tickets/warranty booklets/insurance application in client's folder

**Destroys**

orders from salesman's order book/printout sheet

**MAILS**

acknowledgment of claim letter/map and coded 3x5 cards to district/photocopies of report

**REPORTED CRITERIA:** "Extreme accuracy in totaling; Tact, diplomacy in handling students; Close checking of printouts as input for draftsman designs; Technical terminology; Ability to compare numbers; Understand why errors are errors"

HARDWARE

Automatic typewriter  
(MTST)  
Bulletin board  
Calculator  
Colored pencils  
Electrostatic copier  
Stamp "paid-in-full"  
Slide rule  
Tapes for MTST  
Teletype  
Templates  
Adding machine (10-key)  
Typewriter  
Typits

SOFTWARE

Applications/booklet  
Cards (3x5)  
Code book  
Computer printout  
Contracts/forms  
Liquid process masters  
Invoices/maps  
Modification form  
"Paid-in-full" sheet  
Payment card  
Production control sheet  
Production report  
Purchase order  
Shipping tickets

EDUCATIONAL CUES

Coding  
Computational skills  
Duplicating  
Typing (including MTST)

30. GIVEN SOURCE DOCUMENTS SUCH AS ORDERS/INVOICES AND PUNCHED CARDS/PRINTOUTS, THE WORKER COMPARES AND VISUALLY SIGHT CHECKS SOURCE DOCUMENTS WITH COMPUTER PRINTOUTS/LISTINGS. (42 task sheets)

Receives punched cards/complete, incomplete source documents/orders/reports/listings/printouts

Compares source documents with reports/listings

Sorts source documents as to type

Reconciles computer run totals with control sheet totals

Determines errors and reasons for errors on source documents/printouts

Informs person or department of errors

Requests information for incomplete source documents

Pulls documents from files to fill in incompletions

Files reports/source documents according to job number

Records corrections on source documents/reports/listings

Operates check signing machine

Keypunches cards for those with errors

Sends reports/source documents/printouts/listings to originating departments/

Keypunching/customers/Accounting

ELECTRONIC DATA PROCESSING CRITICAL INCIDENTS

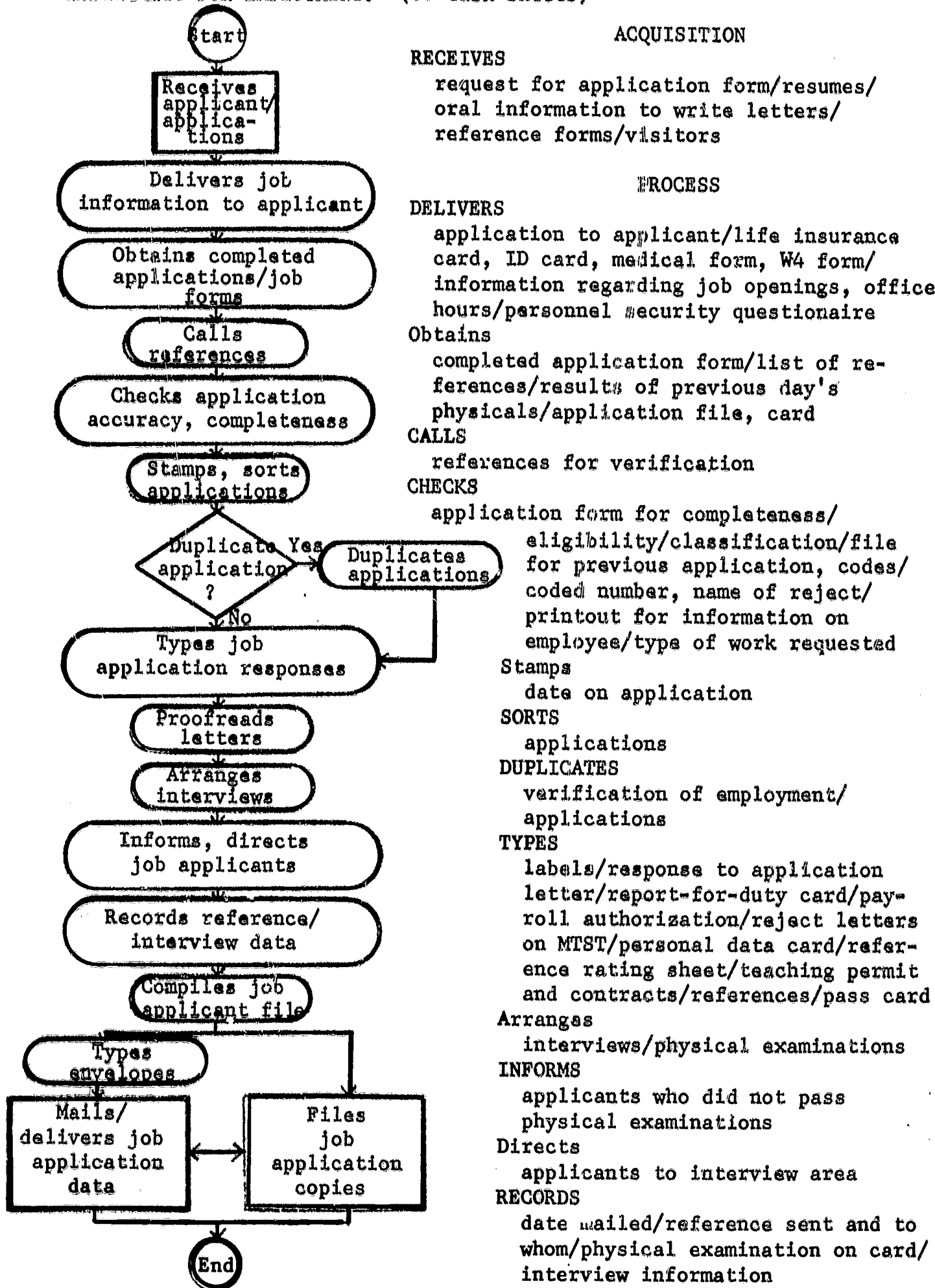
"The worker was asked to handle a rush program job (2,000 cards) by doing as much as she could as fast as she could. She was then to turn it over to the girl on the next shift who would pass it on to the following shift. This worker finished the whole job in three hours."

"When an error is found in the printout sheets, the employee has the job of correcting it. She found an error yesterday and wrote in the correction on the printout sheet but forgot to punch a new card--which is most important."

"The worker punched the payroll cards one month and used the labor program card rather than the time program card. Because of his carelessness, the entire accounting staff had to work nearly all one night to get the payroll processed on time."

3. PERSONNEL

1. GIVEN APPLICANTS, THE WORKER PROCESSES APPLICATIONS AND SCREENS APPLICANTS FOR EMPLOYMENT. (60 task sheets)



**COMPILES**

file on applicant  
 Attaches  
 label to folder, references to application

**DISPOSITION****FILES**

copy of application/application form/carbon copy of letters/card, copy of teachers contracts

**MAILS**

form rejection letter/request to appear for interview

**DELIVERS**

application to interviewer/physical examination form to supervisor

**Refers**

client to another office

**SUPPLEMENTARY STEPS:** Fingerprints employee; Photographs employee; Weighs mail

**HARDWARE**

Duplicator  
 Typewriter  
 MTST  
 Telephone

**SOFTWARE**

Application forms  
 Envelopes  
 Job opening/rejection  
 form letters  
 Labels for files  
 Salary schedule  
 Computer printouts

**EDUCATIONAL CUES**

Duplicating  
 Typing  
 Filing (alphabetically)  
 Checking  
 Proofreading  
 Operation of MTST  
 Communication skills  
 Medical terminology

**REPORTED CRITERIA:** "Courteous; Give correct instructions; Must type 45 wpm on electric typewriter; Good judgment; Detailed work; Must be able to spot errors or omissions; Tact; Handle different situations well; Reword form letter if necessary; Check details carefully; No confidential information sent; Pleasant; Keep up to date"

**2. GIVEN APPLICANTS, THE WORKER INTERVIEWS AND CONDUCTS PRE-EMPLOYMENT TESTING. (.36 task sheets)**

**Receives** job applicants/applications

**Pulls** applicant's file

**Discusses** application, position

**Interviews** applicant

**Checks** records/application for completeness

**Distributes** test materials

**Explains** tests to applicants, gives full instructions

**Administers** tests to applicants (typing test, English test, spelling test, shorthand test)/(retests) if necessary

**Collects/corrects/evaluates** tests by grading with a punched master

**Records** interview/test results

**Obtains** signature of applicant on release forms for checking references

**Compiles** applicant files

**Delivers** payroll processing forms to applicant

**Sends** payroll processing forms to Payroll



HARDWARE

Typewriter  
Stop watch

SOFTWARE

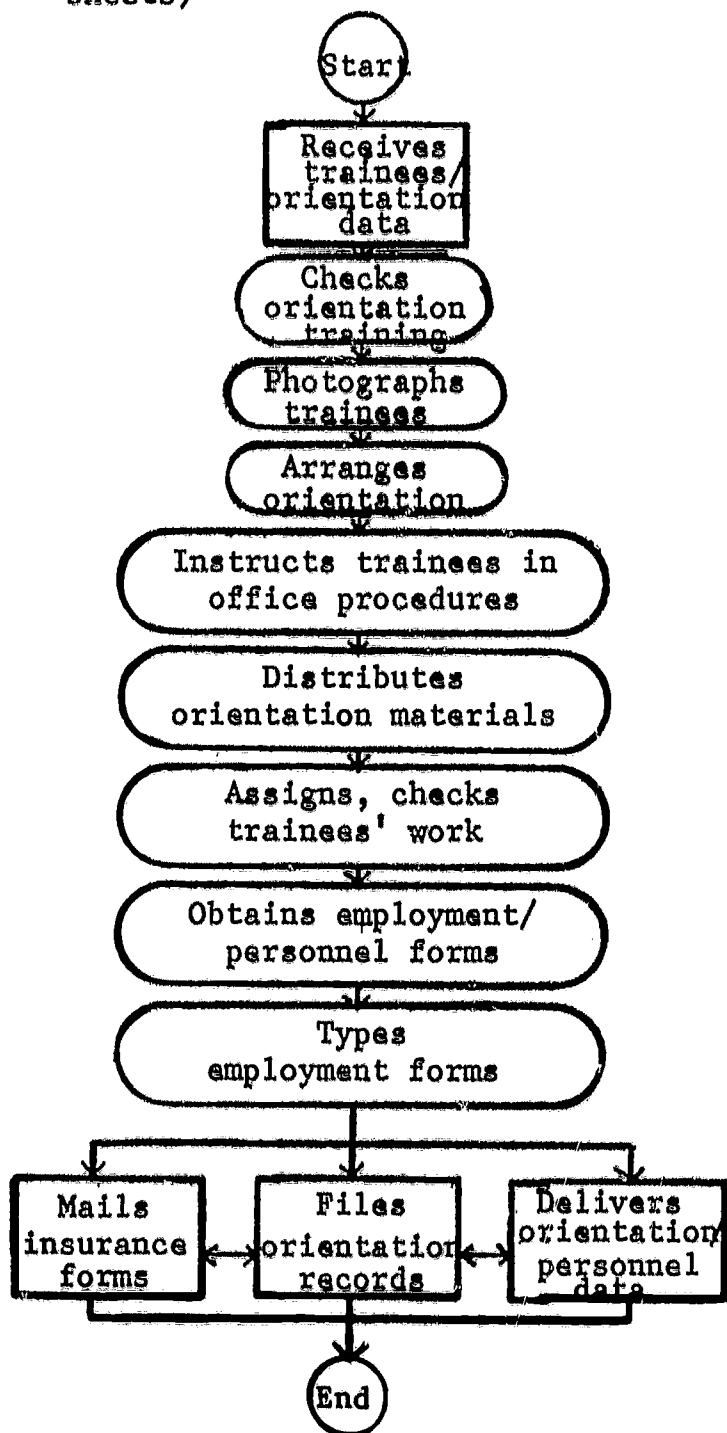
Job applications  
Punched test masters  
Tests and test  
materials

EDUCATIONAL CUES

Accuracy  
Checking  
Typing  
Communication skills  
Courtesy

REPORTED CRITERIA: "Pleasant, should be able to make decisions whether applicant should be tested; Make applicant feel at ease; Skilled in inter-personal relations; Appear calm, high degree of flexibility in handling people and different situations and problems; Patience, common sense required"

3. GIVEN TRAINEES, THE WORKER ORIENTS AND INSTRUCTS NEW EMPLOYEES. (37 task sheets)

HARDWARE

Typewriter  
Camera

SOFTWARE

Employment forms, time cards  
Rules and regulations booklet  
Training manuals  
Birth certificates, transcripts  
Insurance policies

EDUCATIONAL CUES

Accuracy  
Typing  
Using camera  
Filing  
Checking

REPORTED CRITERIA: "Explain insurance program satisfactorily; Be organized and have all materials ready ahead of time; Type error free; Do not treat trainees with overbearing manner; Courtesy; Avoid humiliation; Ability to communicate and teach effectively; Trainee will be able to figure amounts when supervisor needs them; Tact in dealing with others; Use good grammar"

## ACQUISITION

## RECEIVES

applications/employee/salary card/oral information that educational courses will be offered for company personnel/calendar of training sessions/instructions to prepare orientation

## PROCESS

## CHECKS

supplies for trainees, orientation programs

## RECORDS

employment dates/employee data on plaque for photograph/personal information for personnel file

## Photographs

trainees

## Arranges

schedules of new employees for orientation program/trainees in sections/rooms for teaching of courses in hotel management, maintenance

## Instructs

employees in telephone techniques, 10-key adding machine operation/how to write orders/typing of envelopes and mailing procedures/language peculiar to office/uses of different office forms/format for reports/locations of office forms and files/correspondence format/switchboard operation/trainees in company policy, W4 forms, insurance program, employment forms, reference manuals

## Distributes

booklets of rules and regulations/oath of office card/employment forms to employees/packets of trainee materials/work to trainees

## Assigns

sample work/regular work to trainees

## CHECKS

sample work done by trainees/trainees' work for the first four months

## Obtains

employees signature/completed employment forms/birth certificate/transcripts/approval on manual revisions

## TYPES

insurance enrollment card/list of insurance enrollees/employment forms/training manuals/schedule of courses to be offered/fluid process masters on notification of course offerings

## DISPOSITION

## FILES

orientation record

## Distributes

information regarding educational courses offered to all departments

## DELIVERS

insurance policy to employee/withholding forms to Payroll/list of educational courses to training assistant

## MAILS

insurance enrollment card to insurance company/course schedules

SUPPLEMENTARY STEPS: Develops photograph of employee; Laminates photograph of employee; Fingezprints employee; Administers oath of office to employee; Duplicates course schedule

4. GIVEN EMPLOYMENT FORMS, QUESTIONNAIRE WORK SHEETS, AND APPLICATION COPIES, THE WORKER COMPILES PERSONNEL DATA ON NEW EMPLOYEES. (21 task sheets)

#### ACQUISITION

##### RECEIVES

employment forms/copy of application/authorization for security clearance/questionnaire work sheet/employment verification request

#### PROCESS

##### CHECKS

for accuracy/confirmation of employment/references

##### TYPES

employment forms such as tax forms, personal record change card, insurance form, ID card/master index card/labels for files/list of new hires/employee status sheets/absentee record/retirement form/salary history cards/time cards/eligibility forms for Payroll

##### RECORDS

name and personal data/date of application/medical approval/attendance record card

##### Codes

benefits

##### DUPLICATES

application forms/insurance forms

##### COMPILES

new employee folder

##### Labels

new employee folder with name, number

#### DISPOSITION

##### DELIVERS

birth certificate/diploma/car sticketts/ID card/to employee

##### Routes

application to proper person/folders to Payroll

##### FILES

completed employment forms/master index card/rejected applications/insurance card/employee folder/reports

SUPPLEMENTARY STEPS: Punches card for Data Processing; Assigns time clock number to new employee

REPORTED CRITERIA: "Good appearance, tact; Check details; Extreme accuracy; Ability to follow through; Check information carefully"

##### SOFTWARE

Code book  
Labels  
Forms  
Job applications

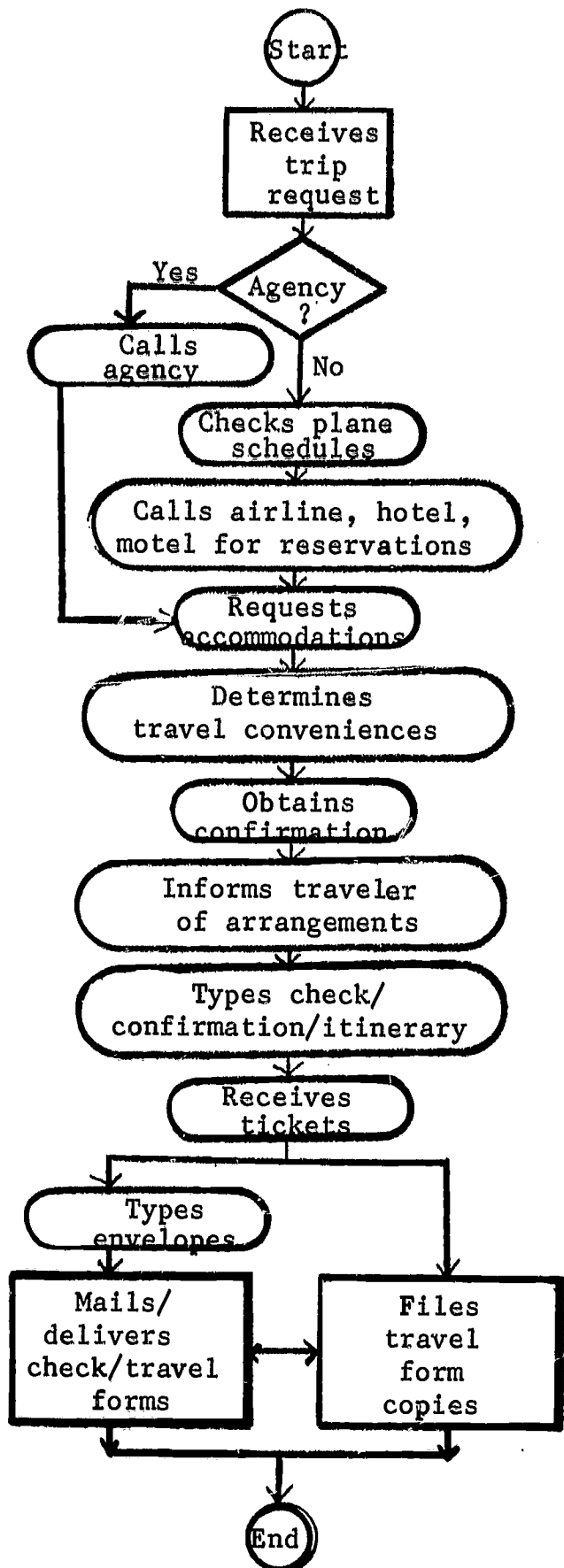
##### EDUCATIONAL CUES

Typing  
Filing  
Checking  
Coding

##### HARDWARE

Typewriter  
Duplicator

5. GIVEN A WRITTEN/ORAL REQUEST, THE WORKER MAKES TRAVEL ARRANGEMENTS FOR EMPLOYEES. (18 task sheets)



**SUPPLEMENTARY STEPS:** Makes cancellations on reservations when necessary; Assigns coded job number to travel authorization form

ACQUISITION

RECEIVES  
oral/written request

PROCESS

CALLS  
travel agency/travel department/motel/hotel/to confirm reservations

CHECKS  
plane schedules

Requests  
accommodations desired/date of arrival/length of stay/date, time of departure

DETERMINES  
most effective route/most convenient flight/necessity of car rental/whether other transportation will be used

Arranges  
accommodations such as plane flight, hotel, motel, auto rental, or state car use

Obtains  
confirmation of reservations

INFORMS  
requestor of arrangements/company transportation agent/travel agency to make reservations

TYPES  
authorization for travel request/check request/confirmation form/travel reimbursement voucher/petty cash request/itinerary for traveler

Obtains  
signature on travel reimbursement voucher

RECEIVES  
tickets

DISPOSITON

FILES  
travel authorization/form copies

DELIVERS  
travel form/check request to Business Office/confirmation form to employer/information to traveler /travel reimbursement voucher to Purchasing/tickets to supervisor

MAILS  
tickets to traveler



HARDWARE

Typewriter  
Telephone

SOFTWARE

Plane schedules  
Check requests  
Travel forms  
Rate sheets

EDUCATIONAL CUES

Typing  
Communication skills  
Filing  
Checking

REPORTED CRITERIA: "Knowledge of how to make hotel and auto reservations; Read plane schedules; Correct information very important; Accuracy extremely important; Knowledge of geography; Withstand pressures of making many reservations at once"

6. GIVEN A LIST OF EXPENSES, THE WORKER PROCESSES TRAVEL VOUCHERS FOR EMPLOYEES. (10 task sheets)

## ACQUISITION

## RECEIVES

travel expense vouchers/travel book/vouchers for paid travel advances

## PROCESS

## Stamps

expense vouchers with date

## CHECKS

for accuracy/receipts with travel authorization card/validity of claims/mileage

## COMPUTES

expense account total/allowances at 11 cents per mile/balances general ledger/journal totals

## Corrects

expense voucher amounts/expense category totals

## RECORDS

total of travel voucher/advances/expense figures to different accounts/travel request in travel log/date mailed/changes of travel made enroute

## Posts

advances in journal

## Attaches

authorization slip to expense statements/receipt to voucher/check copy to voucher

## TYPES

letter to send with check/travel claim forms

## DISPOSITION

## MAILS

letter, reimbursement/advances/check/travel claim forms

## DELIVERS

forms to Accounting/division office for further checking/vouchers for payment

## FILES

travel authorization slips/expense statements/receipts/travel claim form

SUPPLEMENTARY STEP: Duplicates voucher

HARDWARE

Adding machine (10-key)  
 Typewriter  
 Hand stamp

SOFTWARE

Travel voucher forms  
 Check  
 Travel book, log

EDUCATIONAL CUES

Checking  
 Accuracy  
 Computational skills  
 Typing  
 Filing

REPORTED CRITERIA: "Expense statements are verified and voucher completed; Check figures correctly; Accounting procedures knowledge; Accuracy most important"

7. GIVEN EMPLOYEES NEEDING RIDES, THE WORKER CHECKS OUT CITY CARS OR ARRANGES CAR POOLS. (2 task sheets)

Receives oral request for transportation from employer

Delivers transportation card to employee to complete

Checks card for completion

Arranges car pool

Delivers keys to employee

Records vehicle/car pool information in log

8. GIVEN ABSENTEE REPORTS, UNION CARDS, AND REQUESTS FOR LEAVE, THE WORKER COMPILES PAYROLL INFORMATION FROM PERSONNEL RECORDS. (23 task sheets)

## ACQUISITION

## RECEIVES

telephone call from ill employee/department reports/time and attendance cards/moving expenses of employee/operations cards of minutes worked per job, amount to be paid/notification of pay rate change/payroll questions/salary deduction form/union cards/absentee reports/request for leave/termination notice

## PROCESS

## INFORMS

department manager of employee absence

## Pulls

personnel record card/ID payroll punched card/manual of procedures/applicant separation folder

## CHECKS

number of leave days left/overtime/payroll punched card with operations cards/job title with wage/personnel records/completion of salary deduction form/attendance records

## Writes

employee name, badge number, department, payroll number, address, last day worked on form

## RECORDS

date, reason for absence/absence/holidays/overtime/employee name/taxable portion of moving expenses/time sheet information/request for payroll adjustment/date of return from leave/personnel change notice

**TYPES**

employee information on cover sheet, tab of folder/leave slip/report on non-taxable items/rate change form/absentee form/disciplinary letter/appointment notice/termination notice

**Obtains**

attendance sheets/approval of rate changes/adjustment sheet

**DISPOSITION****Distributes**

disciplinary letters to department head/personnel papers for signatures

**DELIVERS**

union dues deduction card to Payroll/time attendance cards to Payroll/adjustment sheet/payroll deduction form

**FILES**

employee folder/time cards/matched operations and ID payroll punched cards/copy of rate change/union cards/leave of absence forms/copy of probationary forms/copy of termination form

**MAILS**

rate changes/adjustment forms/probationary forms to employee

**SUPPLEMENTARY STEP:** Compiles folder on ill employee

**HARDWARE**

Typewriter  
Telephone  
Hand stamp

**SOFTWARE**

Employee folders  
Leave slip  
Personnel forms,  
cards

**EDUCATIONAL CUES**

Typing  
Filing (numerical,  
alphabetical)  
Checking  
Accuracy

**REPORTED CRITERIA:** "High degree of accuracy; Know company policy; Pressure; Cooperative attitude; Patience, understanding; Work under pressure"

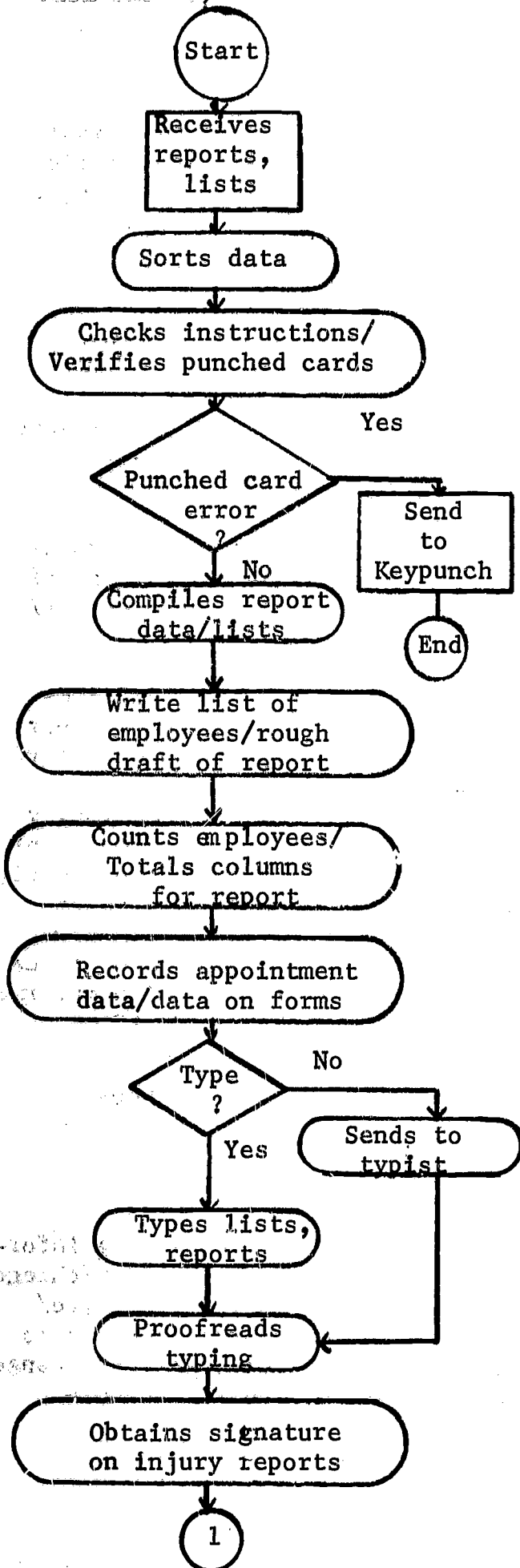
**PERSONNEL CRITICAL INCIDENTS**

"Some applicants are hesitant about entering the agency. This particular worker makes them feel welcome, at ease, and is particularly gracious in answering their questions. In one particular case, she made a highly specialized, mature applicant feel welcome, so that the applicant stayed, was interviewed, and was later sent on a very difficult-to-fill position which worked out very happily for company, customer, and employee."

"On a few occasions this employee has sent out letters where she typed "Mrs." instead of "Mr." These were sent to very important people and has caused much embarrassment for the Personnel Office."

"The worker wrote too much personal information on a verification of employment form that was being sent to another company. It is our policy only to answer certain questions on these forms and not give any financial information on the employee."

9. GIVEN SOURCE DOCUMENTS SUCH AS PERSONNEL LISTS, APPOINTMENT CARDS, AND ROUGH DRAFTS, THE WORKER COMPILES AND TYPES PERSONNEL REPORTS. (35 task sheets)



## ACQUISITION

## RECEIVES

written information/list of personnel/ rough drafts/oral instructions/lists of new personnel appointments/punched cards on new appointments/population count/report of injury/daily log on office/quarterly overtime report/ turn-over report/transfer termination

## PROCESS

## SORTS

according to department/according to sex/number of sick days/absences

## CHECKS

instructions/permanent record cards/ for number of copies needed

## Verifies

punched cards on new appointments

## COMPILES

data for report/monthly report on significant accomplishments for month/vacation list/information for activity report

## Writes

names of employees due for evaluation/ all changes made/rough draft of report/ keypunch instructions on new appointment sheet/order form for duplication on number of copies/accident safety report/daily activity reports

## Counts

employees hired, resigned, or laid off during the month

## Totals

columns for report

## RECORDS

data from new appointment sheet/population data on manpower count form

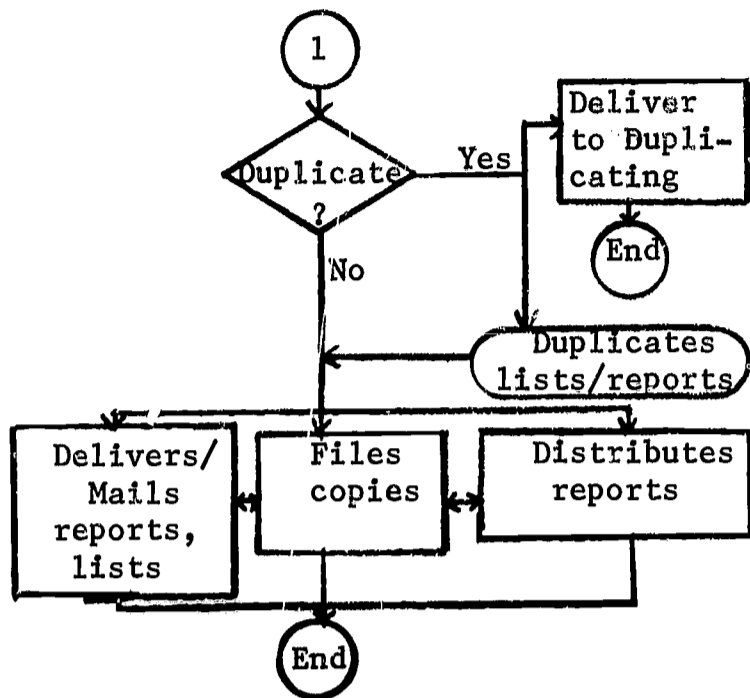
## TYPES

retirement list/oath of office lists/ reports/letters/stencils/employees to be evaluated lists/weekly payroll changes/ditto list of employee's personal data/master list by department of personnel data/memo noting changes in population count/injury report/ activity report/overtime report/ safety memo/accident summary/retro-active payroll

## Obtains

signature of doctor/nurse on injury report



HARDWARE

Typewriter  
 Duplicator  
 Blueprint machine  
 Adding machine

SOFTWARE

Punched cards  
 Masters for duplication

EDUCATIONAL CUES

Proofreading  
 Typing  
 Duplicating  
 Accuracy  
 Checking  
 Computational skills

DUPLICATES

population count/employee personal data list/reports/memos/injury reports/activity report

DISPOSITIONDELIVERS

stencils to duplicating/final report to dean/evaluation list to supervisor/report to project manager/appointment sheets to Key punching/safety report to main office

Distributes

administrative reports/injury report

MAILS

reports/letters/original injury report, physicians report/activity report

FILES

master list of personnel data/new appointment sheets/copy of injury report/activity report/turn-over report

SUPPLEMENTARY STEP: Microfilms  
 all documents in Personnel department to maintain permanent records.

REPORTED CRITERIA: "Typing accuracy valued over speed; Accuracy very important; Correct paychecks received by personnel; Typing ability required 40-50 wpm on electric typewriter; Accuracy in work with numbers is a must; Pressure of deadlines, strictly confidential with information; Legible handwriting; Tact"

## 10. GIVEN PERSONNEL CHANGES, THE WORKER CHECKS, UPDATES, AND RECORDS PERSONNEL FILES. (46 task sheets)

ACQUISITIONRECEIVES

approved employment forms/mail/insurance claims/form requesting information on termination/notice that employee has been sent on job/changes of status or address form/tuition refund application from employee/employee lists/address, telephone, status change information/memo to update overhead files and personal directory/computer sheets of change/visitor/materials to be filed/activity tickets of contract people

PROCESSSORTS

mail/insurance claims alphabetically

**COMPILES**

file on new employee

**CHECKS**

employment form/effective insurance date/with customer to see if worker arrived on job/personnel record/grades/tuition/to see if employee is doing job-related task/computer sheets for initials, date, and termination/files for desired information/benefits and insurance information for visitor/automatic salary increase/activity tickets

**(Updates)**

status cards/records to show moves from department to department/forms to update/overhead file/personal directory/clock number

**RECORDS**

personnel changes/insurance changes/personal data/new employee data/new information on personnel record/changes from computer sheets

**Writes**

employers certifications for insurance claims/amount to refund/contract information in notebook

**TYPES**

insurance claim forms/personnel report listing workers, hours for the week/payroll, overtime listing/salary review forms/new time cards/address changes/job classification card/personnel information on personnel history card/labels for folders/personnel changes

**DUPLICATES**

forms on termination information

**DISPOSITION****DELIVERS**

changed notice to Addressograph/activity tickets to Key punching/change notices to Payroll/refund form to supervisor/computer sheets of change to Payroll/information to employee regarding salary increase

**Distributes**

mail/salary review forms to department heads

**FILES**

copies of termination information form/employers certification for claims/course approval form/ personnel history card/employee folder/ insurance change report/various materials collected in baskets

**MAILS**

approved employment form/claim check to employee/original termination information form

**SUPPLEMENTARY STEP:** Calls employee with highest seniority to report for work; Stamps date on forms received.

**HARDWARE**

Typewriter  
Duplicator  
Hand stamp  
Files

**SOFTWARE**

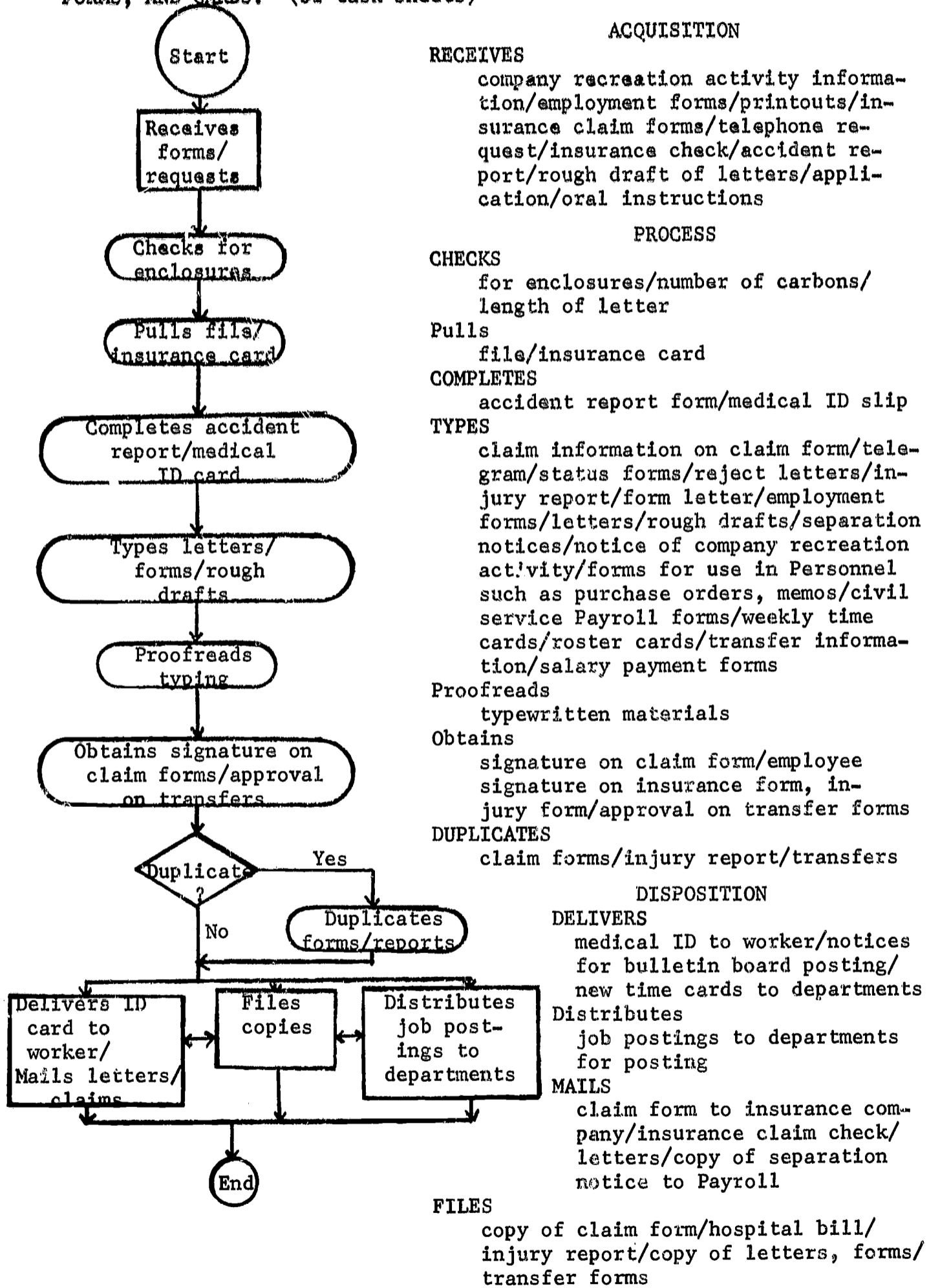
Personnel cards/lists  
Personnel directory

**EDUCATIONAL CUES**

Typing  
Duplicating  
Checking  
Filing  
Proofreading

**REPORTED CRITERIA:** "These records must be kept up to date; Accurate records on each employee; Courtesy; Follow through on details; Great tact; Control temper; Ability to retain knowledge of changes; Knowledge of insurance policies."

11. GIVEN DOCUMENTS SUCH AS ROUGH DRAFT LETTERS, EMPLOYMENT FORMS, AND CLAIMS FORMS OR ORAL INSTRUCTIONS, THE WORKER TYPES PERSONNEL LETTERS, FORMS, AND CARDS. (31 task sheets)



HARDWARE

Typewriter  
 Duplicator  
 Hand Stamp

SOFTWARE

Letters  
 Claim forms  
 ID cards  
 Checks

SUPPLEMENTARY STEPS: Stamps time on claims; Transcribes dictated materials; Takes dictation; Draws bar graph for job salary studies.

EDUCATIONAL CUES

Typing  
 Filing  
 Checking  
 Accuracy  
 Neatness  
 Shorthand and transcription

REPORTED CRITERIA: "Accurate information sent as soon as possible, neat letters and erasures; Good English skills required; Ability to compose interesting notices from drafts or rough facts; Close attention to detail; Drafting ability where needed; Ability to interpret information from statistics to graph"

12. THE WORKER ISSUES PARKING PERMITS TO AUTHORIZED PERSONS. (1 task sheet)
13. THE WORKER ISSUES PASS CARDS TO EMPLOYEES. (1 task sheet)
14. THE WORKER ISSUES WORK PERMITS TO STUDENTS UNDER 18 YEARS OF AGE. (1 task sheet)
15. THE WORKER ISSUES SOCIAL SECURITY CARDS TO CUSTOMERS. (1 task sheet)
16. THE WORKER ISSUES WORKING PAPERS TO STUDENTS. (2 task sheets)
17. THE WORKER PROCESSES PAPERS FOR MERIT AWARDS AND ISSUES MERIT AWARD PINS. (2 task sheets)
18. THE WORKER ADMINISTERS TESTS TO APPLICANTS FOR COMPANY DRIVERS LICENSES. (1 task sheet)
19. THE WORKER ARRANGES ANNUAL AWARDS MEETINGS. (1 task sheet)
20. THE WORKER HANDLES ENTERTAINMENT TICKETS FOR PERSONNEL. (1 task sheet)
21. THE WORKER EXPLAINS LABOR CONTRACT ALTERNATIVES TO MEN WHO ARE SURPLUS (LAID OFF). (1 task sheet)
22. THE WORKER PARTICIPATES IN UNION/MANAGEMENT MEETINGS. (1 task sheet)
23. THE WORKER HANDLES LABOR GRIEVANCES. (2 task sheets)
24. THE WORKER PROMOTES HIGHWAY SAFETY AMONG SALESMEN. (1 task sheet)



4. PRODUCTION

1. GIVEN ROUGH DRAFTS OF PRODUCTION REPORTS/SCHEDULES/PRINTOUTS, OR INSTRUCTIONS TO COMPOSE A REPORT, THE WORKER COMPILES, TYPES AND/OR WRITES PRODUCTION REPORTS. (16 task sheets)

HARDWARE

Typewriter  
 Calculator  
 Adding machine (10-key)  
 Files

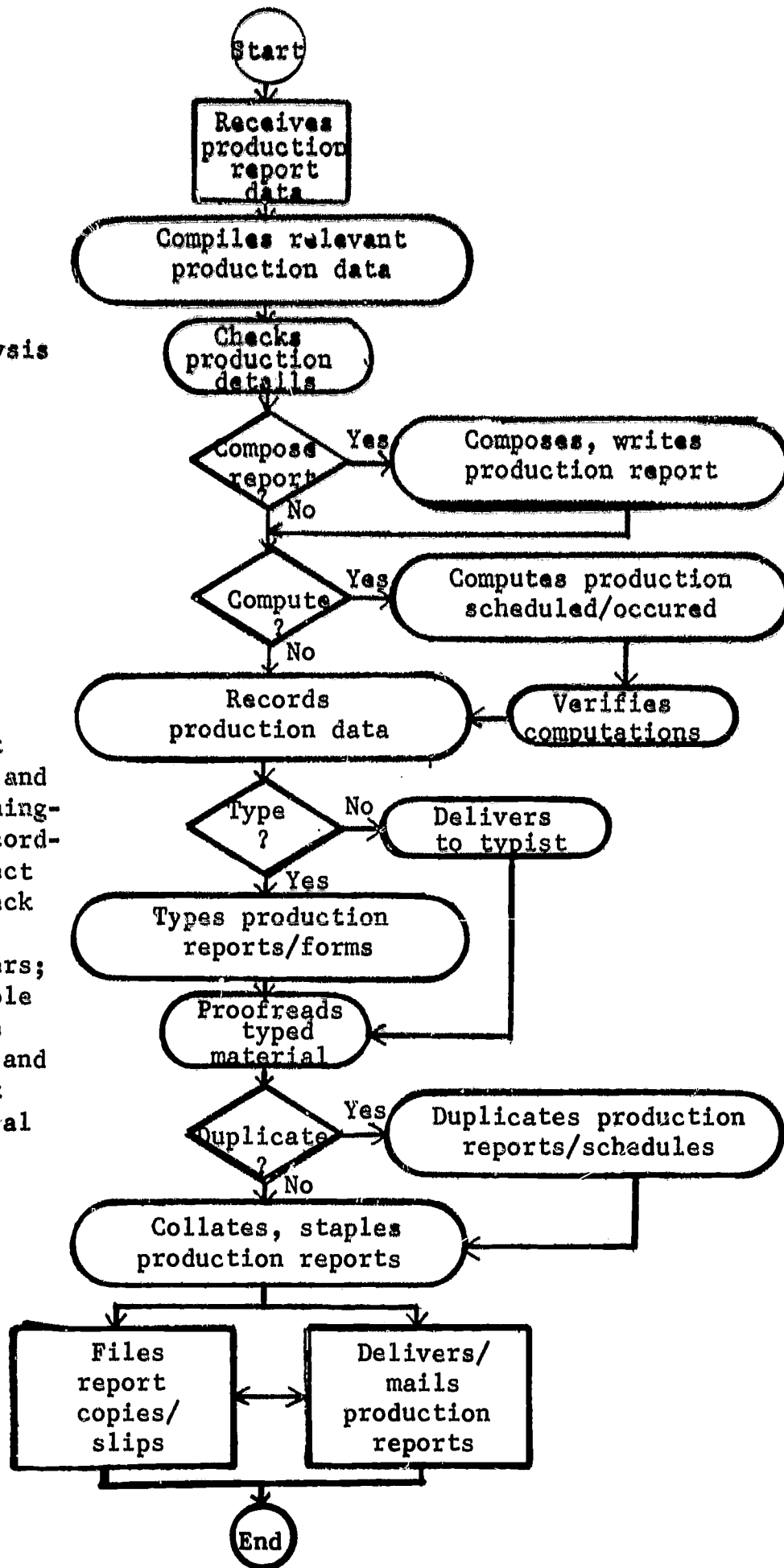
SOFTWARE

Weights book  
 Log book  
 Production reports/analysis sheets  
 File labels and tabs

EDUCATIONAL CUES

Accuracy  
 Typing  
 Computational skills  
 Proofreading  
 Checking  
 Filing

REPORTED CRITERIA: "Must be able to compile data and use it to compose a meaningful report; Accurate recording of information; Correct weights; Promptness; Check details very carefully; Know where to find answers; All copies must be legible making certain dates are correct, inserts there, and correctly placed; Report should have a good general appearance"



## ACQUISITION

## RECEIVES

final report/printouts/production slips, lists/rough draft of production report, schedule/report forms/raw data/instruction, notes/pre-production sheets/contracts/shipping tickets/analysis committee sheet

## PROCESS

## COMPILES

report from notes and other sources

## SORTS

printouts by subject, dispatcher, area/reports by products/production slips by number/packing slips

## CHECKS

production report against master information sheet for accuracy/notes, dates received/any new work on ad/that all questions are answered on work status/master sheets/engineers' product-report sheet

## COMPOSES

production report

## COMPUTES

total number units produced/difference between scheduled and actual amounts produced/weights/extensions/packing slip totals/balance to be produced/production hours for workers

## Verifies

accuracy of computations

## RECORDS

production information in log/total units produced on card/gain and loss amounts/date contract received/total productions/differences in production on production sheet/oral instructions for format/information on daily operations report

## TYPES

production report/schedule on printed form, fluid process master/changes on master sheet/index labels, tabs for folders

## DUPLICATES

production report/progress report/pre-production schedule

## Collates, (staples)

report by hand

## DISPOSITION

## MAILS

contracts

## FILES

production reports alphabetically, numerically/transfer reports/pre-production sheets/progress report/daily operations report/balance sheet/packing slips/analysis of renewal committee report/gain and loss report/(pelt) cutting reports/contracts/production schedules

## DELIVERS

production report to department heads/summary sheets to Duplicating/gain and loss report to supervisor/reports of back orders to dispatchers, supervisor

## Sends

copy of production report to company members/analysis files to credit assistant

2. GIVEN PUNCHED CARDS AND WORK ORDERS, THE WORKER SCHEDULES AND EXPEDITES PRODUCTION ORDERS. (23 task sheets)

## ACQUISITION

## RECEIVES

punched cards of production operation data/work orders

## PROCESS

## CHECKS

quantity of parts/schedules/credit references/labor costs/engineers' drawings/work orders/control cards/closing publication data/job number/specifications/completeness of orders

## DETERMINES

schedule adjustments/problem getting parts to Production/schedules for photography and layout for magazine/schedules for unapproved materials

## TYPES

printed forms/expenses on production orders/route cards/number of route card issues/bill for materials/date of job bid/work order/requisition for part/job information/production schedule from job ticket

## Proofreads

all typewritten materials

## Assigns

numbers to work orders/account numbers on bills

## Totals

expenses/cost of labor and materials

## Obtains

signatures on work schedules/approval of schedule

## RECORDS

production order on stock card/total weight of each order/machine-part-shortage sheet information/revised production schedule/assigned number on work order/press order/production data in log/changes on computer input sheet/keypunched card data on laboratory card/deadlines on work orders/instructions on printout sheet

## Attaches

punched cards to materials transfer list/stock cards to job tickets/printouts together

## DUPLICATES

production order/revised production schedule/field change orders

## DISPOSITION

## FILES

copy of production schedule/production control/job tickets/job ticket ledger sheet/press orders/field change orders/specifications/production control cards

## Distributes

final planning sheets throughout plant/control cards/copy of deadlines to various departments

## DELIVERS

shortage sheets to Production Materials/route, data cards to Production floor/work orders to engineer/press orders/drawings to Duplicating/requisition to Parts Procurement/materials transfer list to Expediting/

laboratory cards to Aerospace/job tickets to manager/grinding cards to  
filer/commercial schedules to Control room

**MAILS**

bills

SUPPLEMENTARY STEPS: Updates shortage sheets; Collates punched cards

HARDWARE

Adding machine (10-key)  
Duplicator  
Typewriter

SOFTWARE

Stock and job cards  
Job tickets  
Punched cards  
Computer sheets  
Rough production  
reports and  
schedules

EDUCATIONAL CUES

Duplicating  
Computational skills  
Typing  
Constant checking of  
records  
Filing

REPORTED CRITERIA: "Ability to follow instructions; Make right decisions in adjustment or leveling off the production schedule; Accuracy; Proficient in typing and a basic knowledge of rules of filing; Be extremely explicit in writing detailed instructions; Check and organize details; Knowledge of every production step in ad production from beginning to end"

3. GIVEN A PRODUCTION PROBLEM, THE WORKER CONSULTS AND ADVISES POTENTIAL CUSTOMER. (1 task sheet)

Receives visitor

Studies problem presented by visitor

Makes suggestions on technical aspects of problem and capabilities of the department versus contract with vendor

Refers visitor to supervisor for additional help

Requests date work is needed

Checks status of work in-shop or with vendor, as requested

Delivers order to shop/vendor

PRODUCTION CRITICAL INCIDENTS

"Once I asked him to check into the operation of a new machine we had just received in the shop. I wanted him to work with the foreman and then give me a report on the machine. He never took care of the job, and I did not get a report from him.

I don't think he understood the importance of what I was asking him to do for me. This information involved production cost reduction figures for the shop."

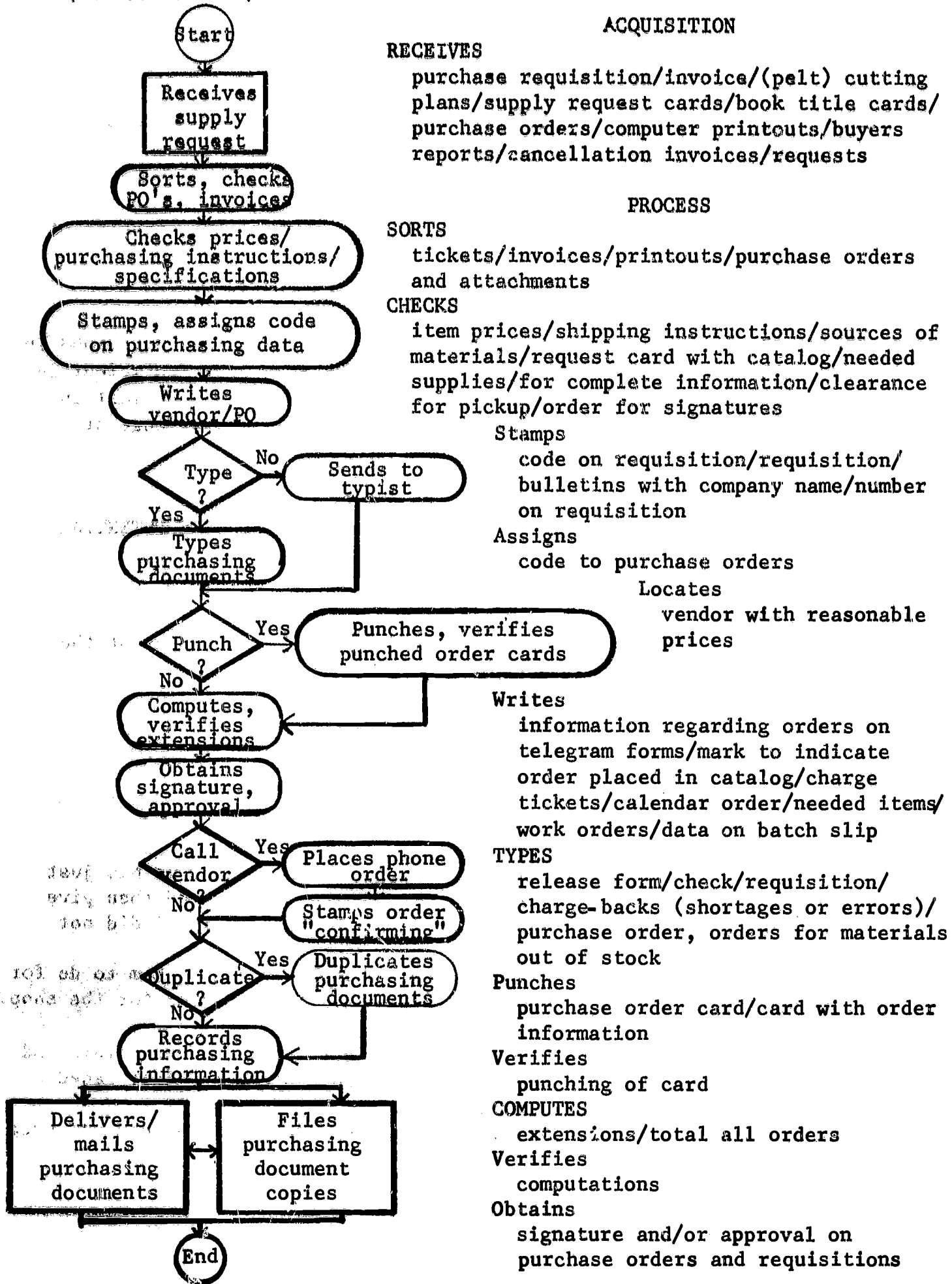
"When he first started he did not keep an up-to-date record of materials and parts on order and being ordered. As a result, our satellite plant faced a shut down because of shortage of materials.

He did not review the daily production records for the plant and did not keep his records current."



5. PURCHASING

1. GIVEN SOURCE DOCUMENTS SUCH AS, REQUESTS, INVOICES, PRINTOUTS, AND REQUISITIONS, THE WORKER PROCURES AND CONTROLS SUPPLIES AND STOCK. (94 task sheets)



**CALLS**

vendor for supplies/places order

**DUPLICATES**

requisition/purchase order/invoices

**RECORDS**

actual cost of item/goods received/number of purchase order/list of purchases

**DISPOSITION****MAILS**

release forms/shipping instructions/purchase orders to supplier/invoice to Accounting

**DELIVERS**

purchase order to Receiving/purchase order to Accounts Payable/vendor bills

**FILES**

copy of order/equipment report/charge-backs/requisitions by number/letter copy/statements

SUPPLEMENTARY STEP: Assigns number to purchase order

**HARDWARE**

Typewriter  
 Duplicator  
 Adding machine (10-key)  
 Microfilm  
 Telephone

**SOFTWARE**

Supplies/materials  
 catalog  
 Purchasing forms

**EDUCATIONAL CUES**

Typing  
 Duplicating  
 Accuracy  
 Filing  
 Communication skills  
 Computational skills

REPORTED CRITERIA: "Basic mach; Ability to spell correctly and write legibly; Aptitude for memory; Some pressure; Alert in numbering of sheets; Knowledge of microfilm reader operation; Concentrate on duties with frequent interruptions; Should have a basically neat and tidy appearance; Watchful to what is going on at all times"

2. GIVEN ORAL/WITTEN REQUESTS FOR ORDERS/ROUGH DRAFTS OF PURCHASE REQUISITIONS, THE WORKER TYPES PURCHASING DOCUMENTS. (30 task sheets)

**ACQUISITION****RECEIVES**

oral, written requests for orders, raw materials/rough draft requisitions/rough draft of purchase order/work orders/order forms/purchase requests from salesmen

**PROCESS****SORTS**

requisitions according to department/order cards numerically

**CHECKS**

requests/information on requisiton/description by part number/for completeness and detail on orders/vendor's card/company name, address for spelling/customer card

**TYPES**

raw materials orders/requisition/purchase orders/checks/on purchase order  
 the date shipment is expected and method of shipment/order form data/  
 requisition information on purchase order/composed letter ordering  
 materials/agreements for storage/charge forms/letter release for price  
 agreement/purchase request forms

Proofreads, Corrects

all purchase orders/purchasing forms/letters

Obtains

approval signature on letters/purchase orders/requisitions

**RECORDS**

cost/number of copies in requisition/sending of order on TWX/order number,  
 date typed

**DISPOSITION****FILES**

order copy/requisition copy

**DELIVERS**

order copy to Distributing/Shipping/Comptroller/Accounting/results of  
 merchandising request to salesman

**MAILS**

orders

**Places**

copy of order on bulletin board

**SUPPLEMENTARY STEPS:** Sends purchase order using TWX; Duplicates agreement for  
 storage; Stamps order with confirmation/letters with mail meter machine;  
 Attaches requisition and work orders/requests

**HARDWARE**

Typewriter  
 Bulletin Board  
 Calculator  
 Stamp

**SOFTWARE**

Requisitions  
 Purchase orders  
 Checks  
 Purchasing forms

**EDUCATIONAL CUES**

Typing  
 Accuracy  
 Checking  
 Filing  
 Letter writing/grammar

**REPORTED CRITERIA:** "Must type accurately; Close attention to detail; Must be  
 able to read all kinds of handwriting; Care in typing customer name on order  
 since many names are similar except for one initial; Excellent English;  
 Compose letters"

3. GIVEN A LIST OF LATE ORDERS, THE WORKER FOLLOWS UP ON ORDERS. (5 task  
 sheets)

Receives lists of late orders

Checks follow-up file daily

Calls Receiving and vendor representative to trace item

Completes follow-up form

Teletypes follow-up messages to vendor

Records/reports findings

Sends follow-up forms to departments concerned

Files copy of teletype message

PURCHASING CRITICAL INCIDENTS

"A worker typed a purchase order. Instead of ordering 1400 each of a specific rivet, she ordered 1400 lbs. of rivets. This amounted to a difference of six million rivets, and resulted in an excess cost of \$60,000 for the company."

"Since the employee came to work ten months ago, she has accurately logged all purchase orders that she received. This is important since what she logged must reconcile with what the buyer said he did. This accuracy has saved much confusion and frustration on the part of all the people who depend upon the information in the log."

"Recently she rapidly and accurately processed an unusually heavy volume of bids for construction jobs, while also efficiently handling all incoming telephone calls."

"If the worker has received a requisition from an agent that is not complete, he will call the agent and request the information himself, which is not really part of his duties. Other workers have either sent it on or brought the problem to the attention of the supervisor. The worker really understands his job and is able to change incorrect information or obtain missing information."

"In totaling the price of merchandise the company was ordering, the worker arrived at a total of \$8,000 instead of \$2,000. The worker left the accumulative total key down when she had finished a previous job. The previous total was added to the figure she was working on."

"Last week a customer invoiced us for the wrong amount, and she caught the price difference. The vendor charged us too much. She compares each price on the invoice with each price on the purchase order."

"Forty custom-made cables had to be scrapped because she entered the wrong code number on the purchase order."

"She typed a purchase order with the wrong quantity on it. We received 31 pounds of rubber bands instead of 3 pounds. She was afraid to question the person who ordered them. The handwriting on the requisition was poor and she took a guess when she should have asked."

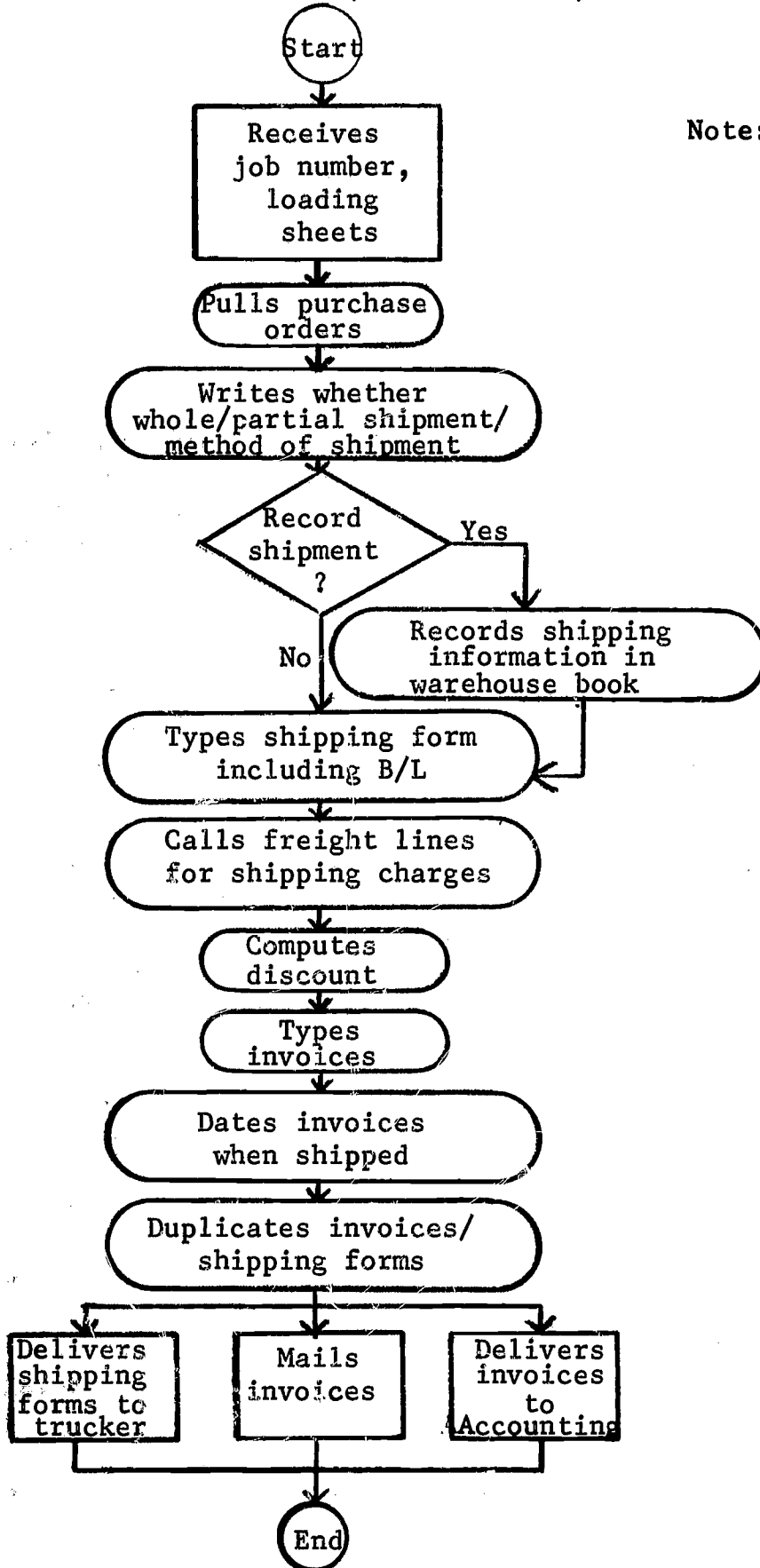
"Last month, she did an excellent job of backordering rubber boots for use by the workers on the production line. There was a shortage, and she knew that it would affect the production in the plant. While I was training her for the job, I stressed backordering and she keeps up with the task without being told."

"The Receiving Department called the worker about three months ago. The worker knew it was a cancelled order for 100 rolls of carpet but let it go to the Manufacturing Department. Consequently, the company has not been able to sell the carpet, which is valued from \$350 to \$450 per roll."



6.1 SHIPPING, RECEIVING, AND INVENTORY--SHIPPING

1. GIVEN INFORMATION THAT JOBS ARE COMPLETED, THE WORKER PROCESSES SHIPPING, BILLING FORMS. (6 task sheets)



Note: Hardware, Software, and Educational Cues listed below refer to entire area of shipping.

HARDWARE

Machinery shipments  
Adding machine (10-key)  
Calculator  
Telephone  
Marking pens

SOFTWARE

Purchase orders  
Waybills  
Bills of lading  
Manifest (driver's delivery route)  
Billing forms  
Shipments  
Packages  
Routing manuals

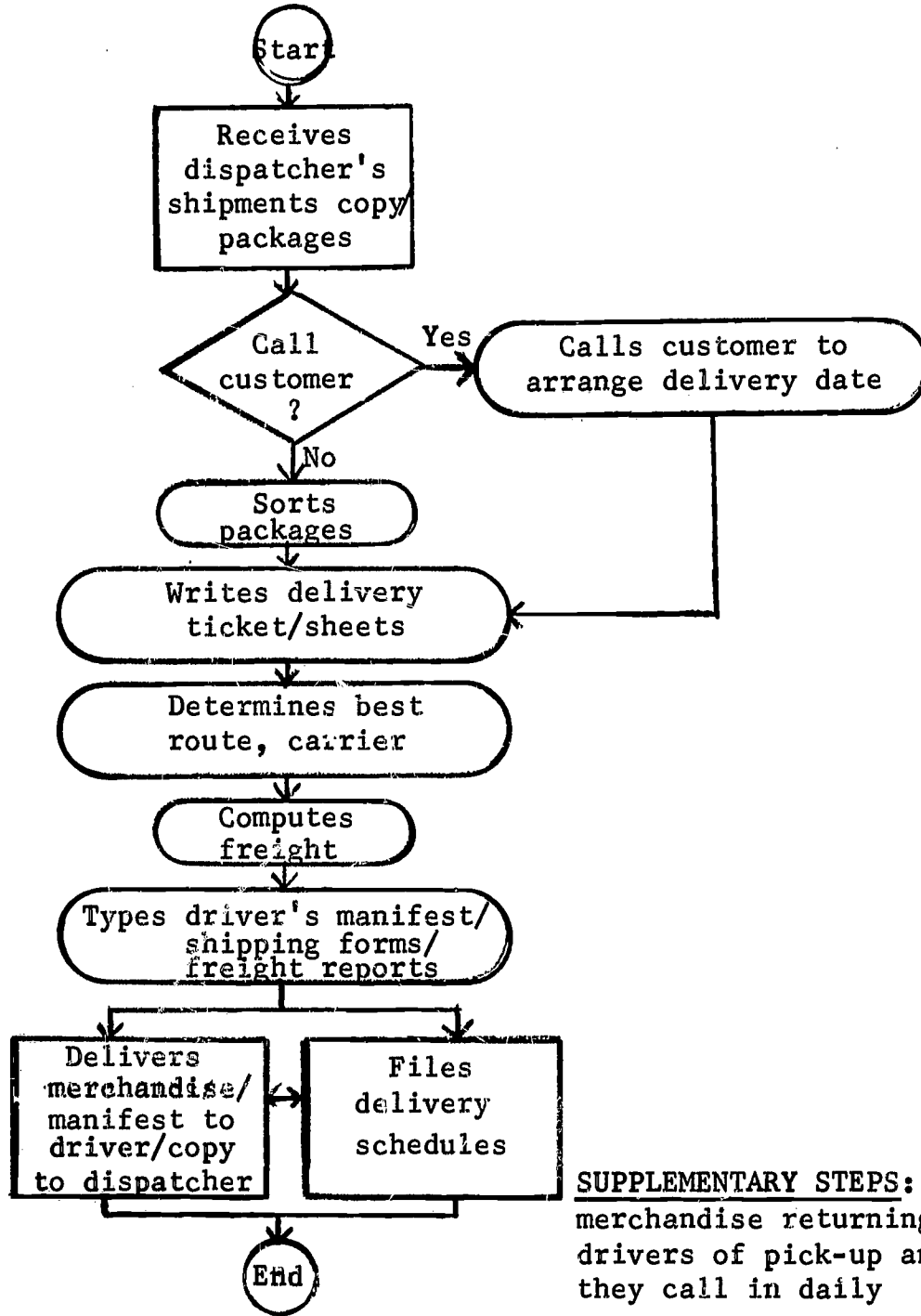
EDUCATIONAL CUES

Statistical typing  
Computational skills  
Manual dexterity  
Telephone manner  
Decisions of cost versus speed in routing  
Filing (alphabetic, numeric)  
Verifying shipments  
Checking, tracing shipments  
Freight, delivery, and billing procedures

SUPPLEMENTARY STEP: Types new invoice for back orders

REPORTED CRITERIA: "Speed, accuracy, neatness in typing numbers"

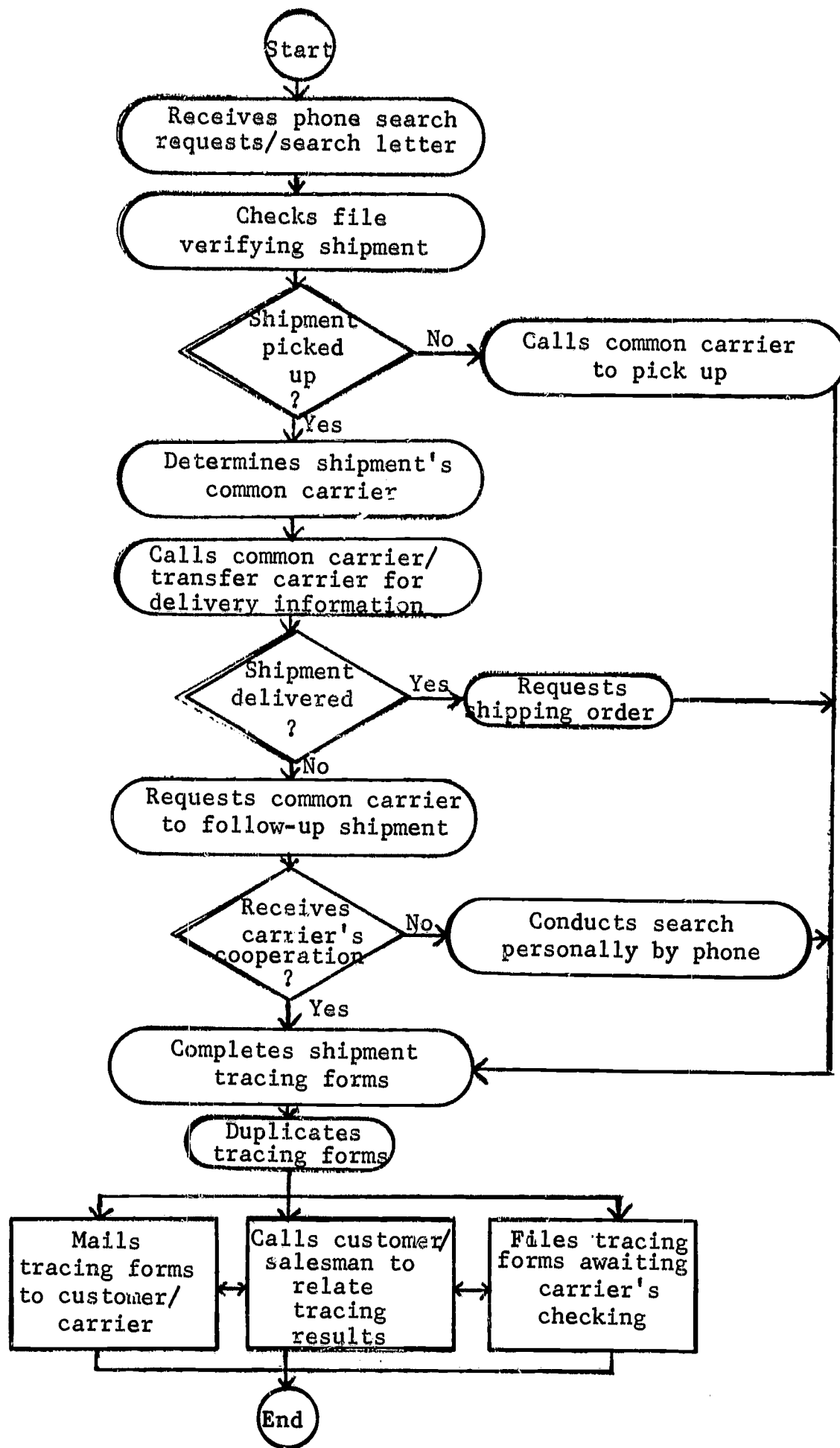
2. GIVEN SHIPPING INFORMATION AND MERCHANDISE, THE WORKER ROUTES DELIVERIES. (7 task sheets)



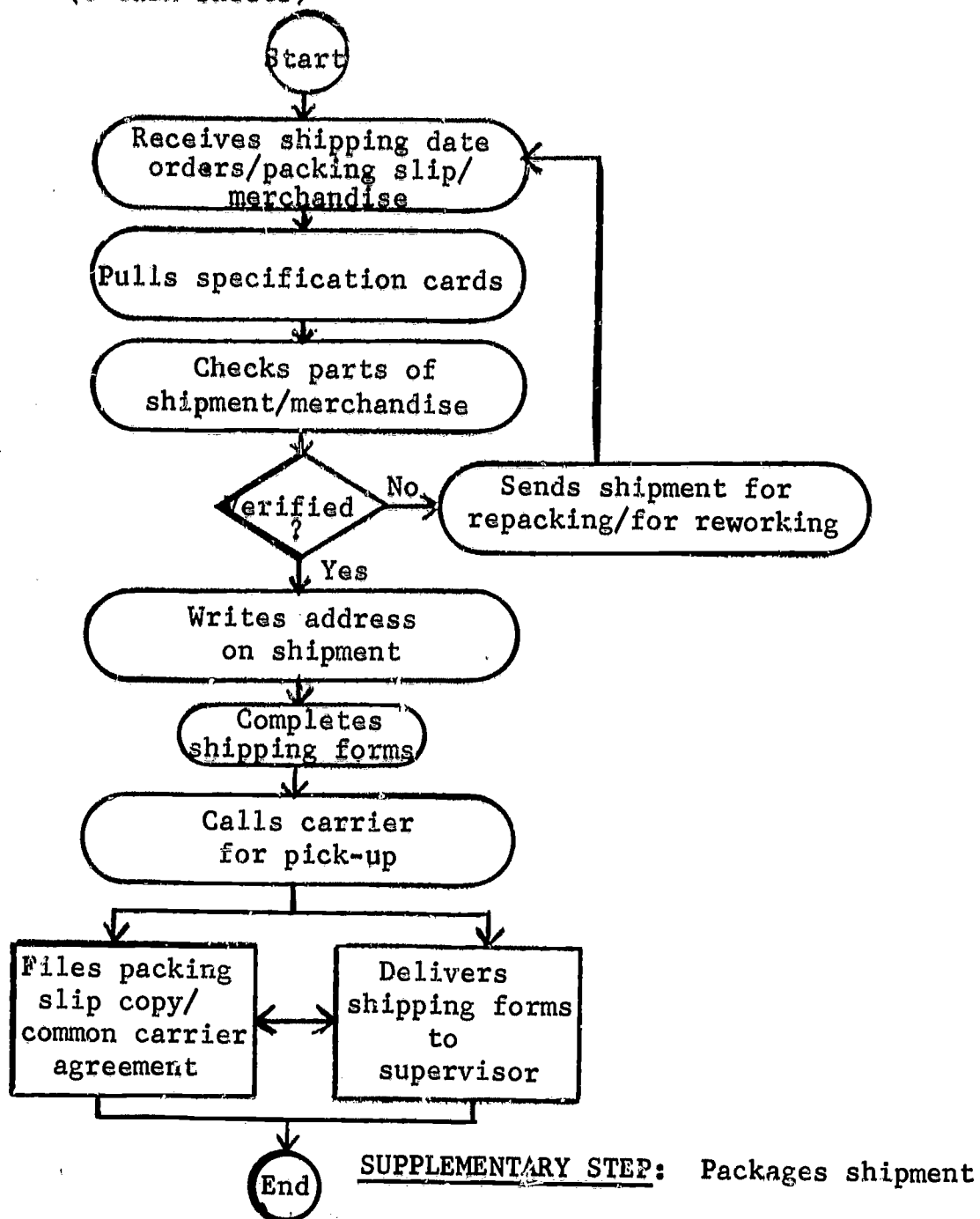
**SUPPLEMENTARY STEPS:** Schedules pick-ups for merchandise returning to company; Informs drivers of pick-up and delivery changes when they call in daily

3. GIVEN PRINTOUTS LISTING SHIPMENTS AND VARIANCES BETWEEN COMPUTER QUANTITY AND PACKING SLIP QUANTITY, THE WORKER PREPARES SHIPPING REPORTS. (1 task sheet)
4. GIVEN A SHIPPING ORDER LISTING ITEMS SHIPPED, THE WORKER CHECKS THE COMPUTED FIGURES AND TYPES A MULTIPLE COPY SHIPPING MANIFEST/BILLS OF LADING/WAYBILL LISTING: WEIGHT, QUANTITY, AND ITEMS SHIPPED. (9 task sheets)
5. GIVEN INFORMATION THAT A SHIPMENT HAS BEEN SENT, THE WORKER TYPES LETTER/TELETYPES CUSTOMER THAT SHIPMENT IS ENROUTE. (3 task sheets)

6. GIVEN A REQUEST TO FIND WHY A SHIPMENT HAS NOT BEEN DELIVERED, THE WORKER TRACES DELIVERY OF SHIPMENT. (5 task sheets)



7. GIVEN AN OUTBOUND SHIPMENT, THE WORKER VERIFIES CONTENTS OF SHIPMENT.  
(6 task sheets)



8. GIVEN SHEETS LISTING SHIPMENTS, THE WORKER DISTRIBUTES AND FILES COPIES.  
(3 task sheets)

9. GIVEN REPAIRED MERCHANDISE, COMPLETED WORK ORDER, AND SHIPPING PAPERS, THE WORKER PACKAGES THE MERCHANDISE AND RECORDS THE SHIPMENT. (3 task sheets)



SHIPPING CRITICAL INCIDENTS

"There had been friction between office employees and factory employees, which resulted in incorrect size boxes being requested for outgoing shipments from the factory. This caused human relations problems. The worker went to the production (factory) department, and in a pleasant manner worked out a solution."

"Carelessly she sent an order to the wrong vendor. This resulted in unnecessary delay while the order was being returned and reprocessed. The books were needed for reference material in a particular class. This caused poor public relations."

"Machines are sometimes exported to Canada. Among the shipping papers it is necessary to include a special export form. On one particular occasion, the carrier had arrived to pick up the equipment earlier than expected. The forms were not ready. The worker in charge was out to lunch. The employee had to drop everything, and with just a few hurried instructions, she completed the forms. These were in order by the time the shipment was ready to go. The carriers were particularly gratified because they were not delayed and could return to their plant before closing time."

"For railroad carload shipments the traffic manager must make a car-diagram to show the exact location of cartons in a freight car. The purpose is to make the cartons accessible for efficient unloading at the scheduled stops. While typing the bill of lading, the worker noticed that the cartons on the car-diagram did not correspond with the number on the invoice. She immediately called it to her supervisor's attention, and it was discovered that only half the order had been diagramed. The traffic manager was very pleased and a great deal of extra work was avoided."

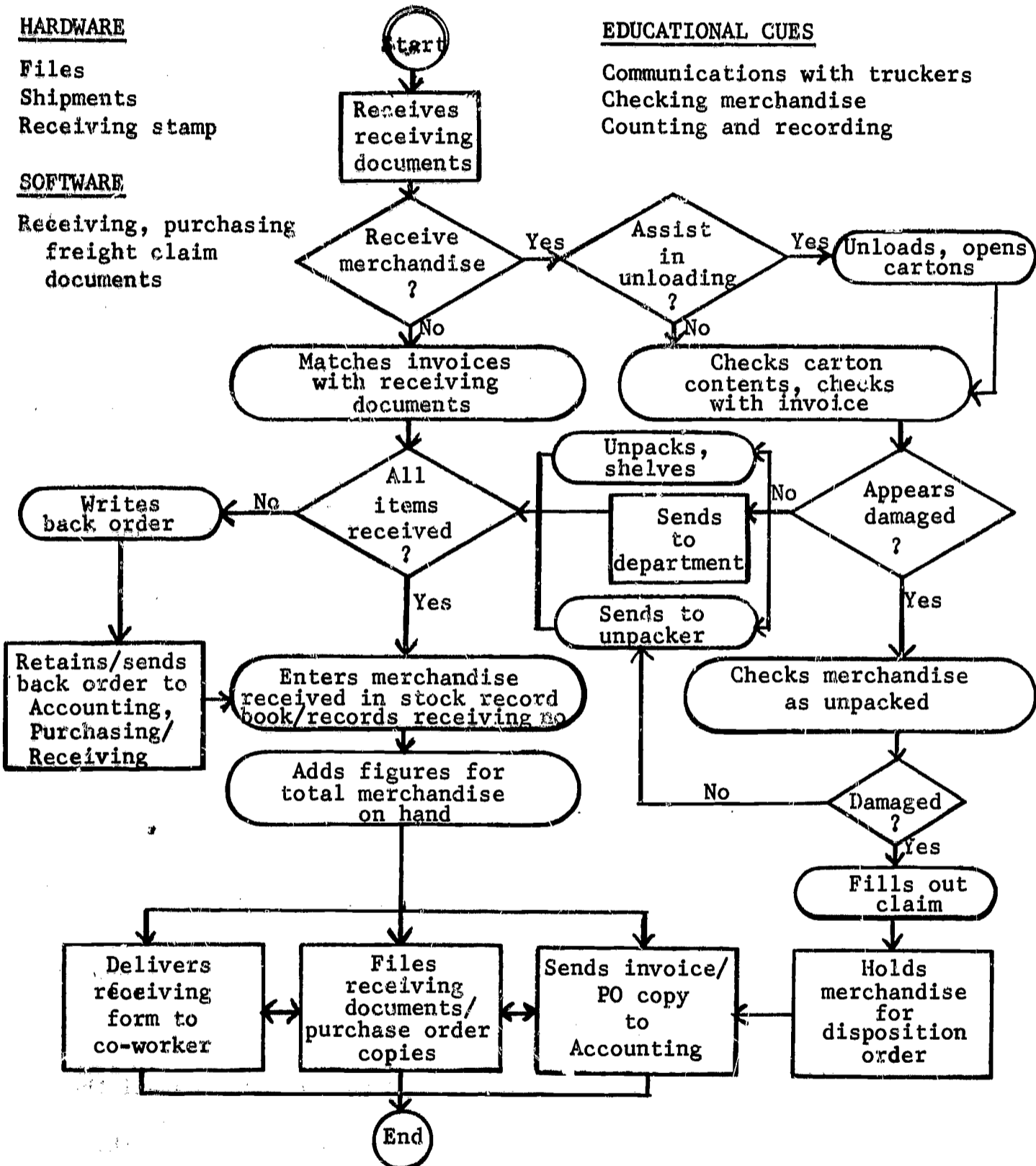
"One of the merchandisers requested that the employee work with him on a list of "ship later's." The employee very diplomatically called each customer for the merchandiser and explained the reason for a late shipment. The employee's effectiveness resulted in no loss of customers."

"Another employee performing this task managed to lose a weight ticket. The truck driver was ready to leave when he noticed that it was not attached to the bill of lading, so he had to wait while another one was prepared. This employee lacked the necessary follow through to check himself to see that all steps had been completed to finish a task."

"She and another girl now handle what it took seven girls to handle before. There are about 50 "look ups" a day, in addition to filing. These "look ups" are time consuming. She always gets them to the individuals requesting the information the same day. ("look ups" are requests for materials-shipping tickets and customer invoices that have been filed and are now wanted by someone in the building) This one day she did 50 "look ups" in addition to her daily filing. The other girls didn't have time to do any of them. She took it upon herself to get them all done. She knew the people wanted them that same day, and she finished them."

6.2 SHIPPING, RECEIVING, AND INVENTORY--RECEIVING

1. GIVEN RECEIVING DOCUMENTS AND/OR INCOMING SHIPMENTS, THE WORKER CHECKS AND RECORDS INBOUND SHIPMENTS. (9 task sheets)



**SUPPLEMENTARY STEPS:** Calls warehouse regarding missing information on receiving forms; Reduced price shipments are recorded in colored pencil; Stamps receiving documents "partial" if only portion of shipment received; Delivers receiving forms to supervisor if price adjustment noted on forms

**REPORTED CRITERIA:** "Shipments received accurately recorded in case of disagreement with sending company; Needs manual dexterity; Skillful at counting material; Quick handling of damaged materials (chemicals); Organizes own work schedules"

2. GIVEN A REQUEST TO TRACE A SHIPMENT, THE WORKER EXPEDITES INBOUND SHIPMENTS. (4 task sheets)

Receives request to check on incoming shipment or  
Determines when order should be followed up  
Calls/writes shipping source/carrier for whereabouts of shipment  
Records shipping information received  
Informs interested party of when inbound shipment expected

3. GIVEN PURCHASED, DAMAGED/SHORT/OVERSHIPMENTS, THE WORKER PROCESSES A CLAIM WITH THE CARRIER/SUPPLIER OF THE MERCHANDISE. (3 task sheets)
4. GIVEN RETURNED, DAMAGED MERCHANDISE, THE WORKER CHECKS AND RECORDS THE DAMAGE AND DIRECTS REPAIRS/DESTRUCTION OF MERCHANDISE. (1 task sheet)
5. GIVEN FREIGHT BILLS FOR INBOUND SHIPMENTS PRESENTED BY THE TRUCKER, THE WORKER DETERMINES IF THE SUPPLIER OR THE RECEIVER IS LIABLE FOR PAYMENT. (1 task sheet)
6. GIVEN FREIGHT BILLS ACCOMPANYING SHIPMENT AND DUPLICATE BILL SENT IN BY CARRIER, THE WORKER PROCESSES THE BILLS FOR PAYMENT. (1 task sheet)
7. GIVEN NOTICE THAT CUSTOMER WISHES TO RETURN LEASED MACHINERY, THE WORKER DETERMINES DATE AND CARRIER FOR PICK-UP OF RETURNED MACHINERY. (1 task sheet)
8. GIVEN INCOMING BOXES OF BOOKS, THE LIBRARY WORKER DETERMINES DISPOSITION OF BOOKS. (1 task sheet)

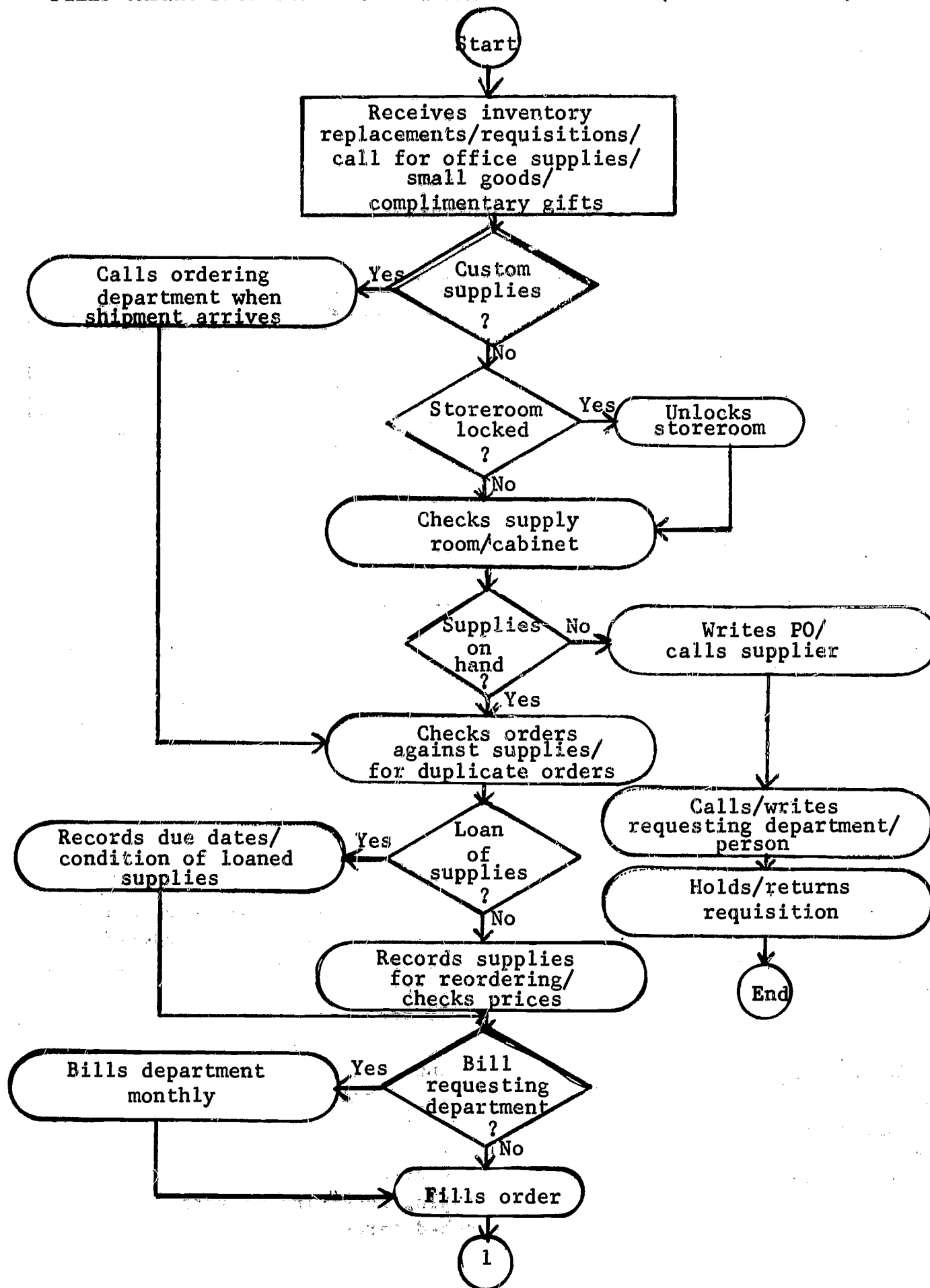
Receives boxes of books  
Checks that previous week's books are removed  
Places new books in bibliographer's section  
Determines disposition of previous week's books by bibliographer's instruction sheet  
Sends invoices to Accounting  
Sends previous week's books to Cataloging/returns unwanted books to vendor

#### RECEIVING CRITICAL INCIDENT

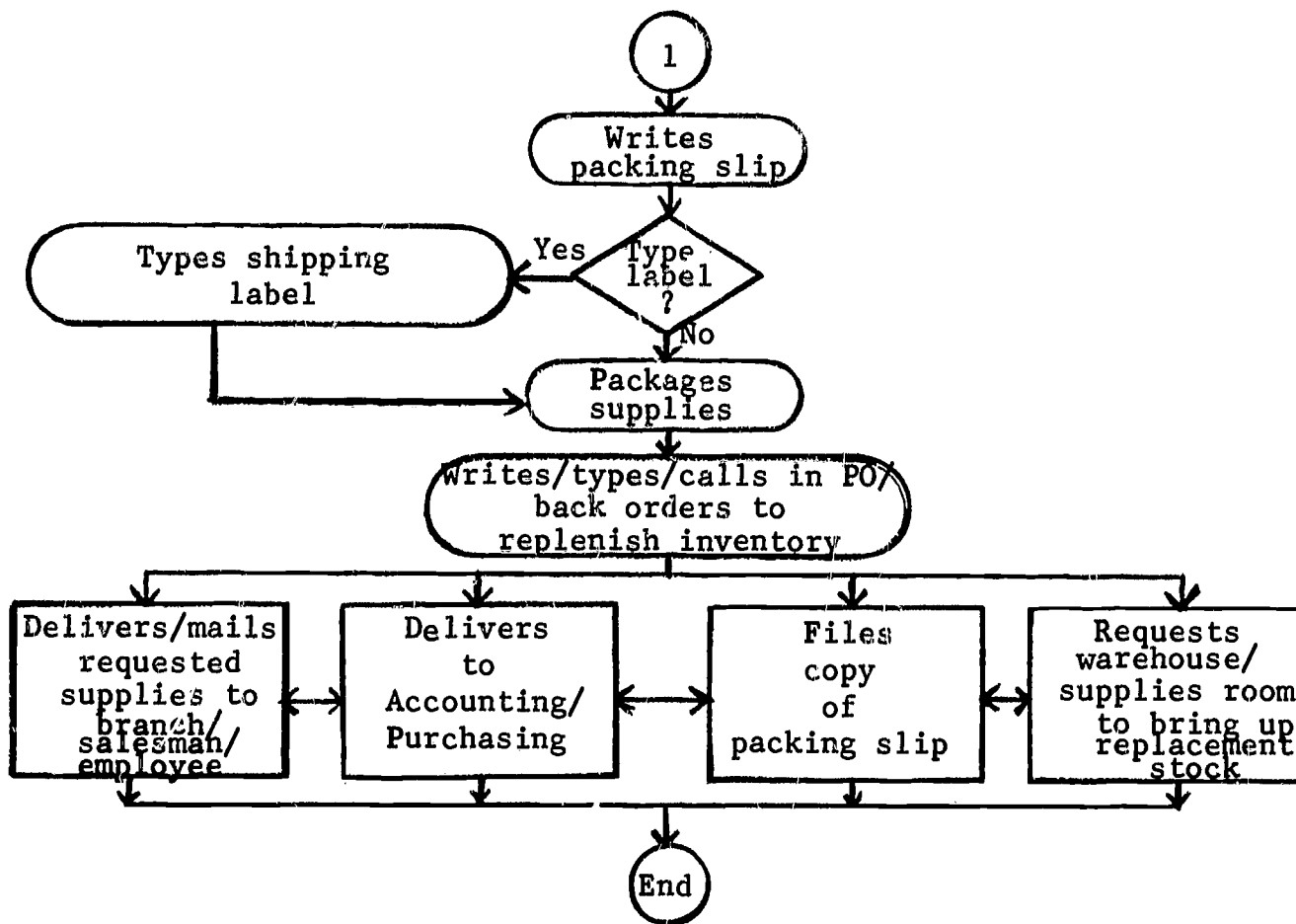
"One time the worker was receiving a shipment and he did not open all the boxes. Therefore he thought there was a mistake on the shipment and brought it to the attention of the supervisor. The supervisor felt this error was due to the worker's inexperience and that he had not learned to check completely."

## 6.3 SHIPPING, RECEIVING, AND INVENTORY--INVENTORY

1. GIVEN THE RESPONSIBILITY OF MAINTAINING AN OFFICE SUPPLIES STOREROOM AND INCOMING STOCK, SMALL GOODS, AND PHONE/Written REQUISITIONS, THE WORKER FILLS ORDERS FROM INVENTORY AND REORDERS STOCK. (22 task sheets)







**SUPPLEMENTARY STEPS:** Scans stock visually and orders low items; Informs supervisor to reorder low items; Checks supplies taken by employees with self-service privileges; Records each item removed for perpetual inventory

**REPORTED CRITERIA:** "Fills 25-30 requisitions daily; Must fill all requisitions within 24 hours or notify department; Correct decision if requesting department is entitled to supplies; Ability to stand for long periods of time; Knowledge of all supplies in stockroom; Moderate degree of decision making in determining new supplies"

Note: Hardware, Software, and Educational Cues listed below refer to entire area of inventory.

#### HARDWARE

Typewriter  
Stock cabinets  
Adding machine  
Calculator  
Truck

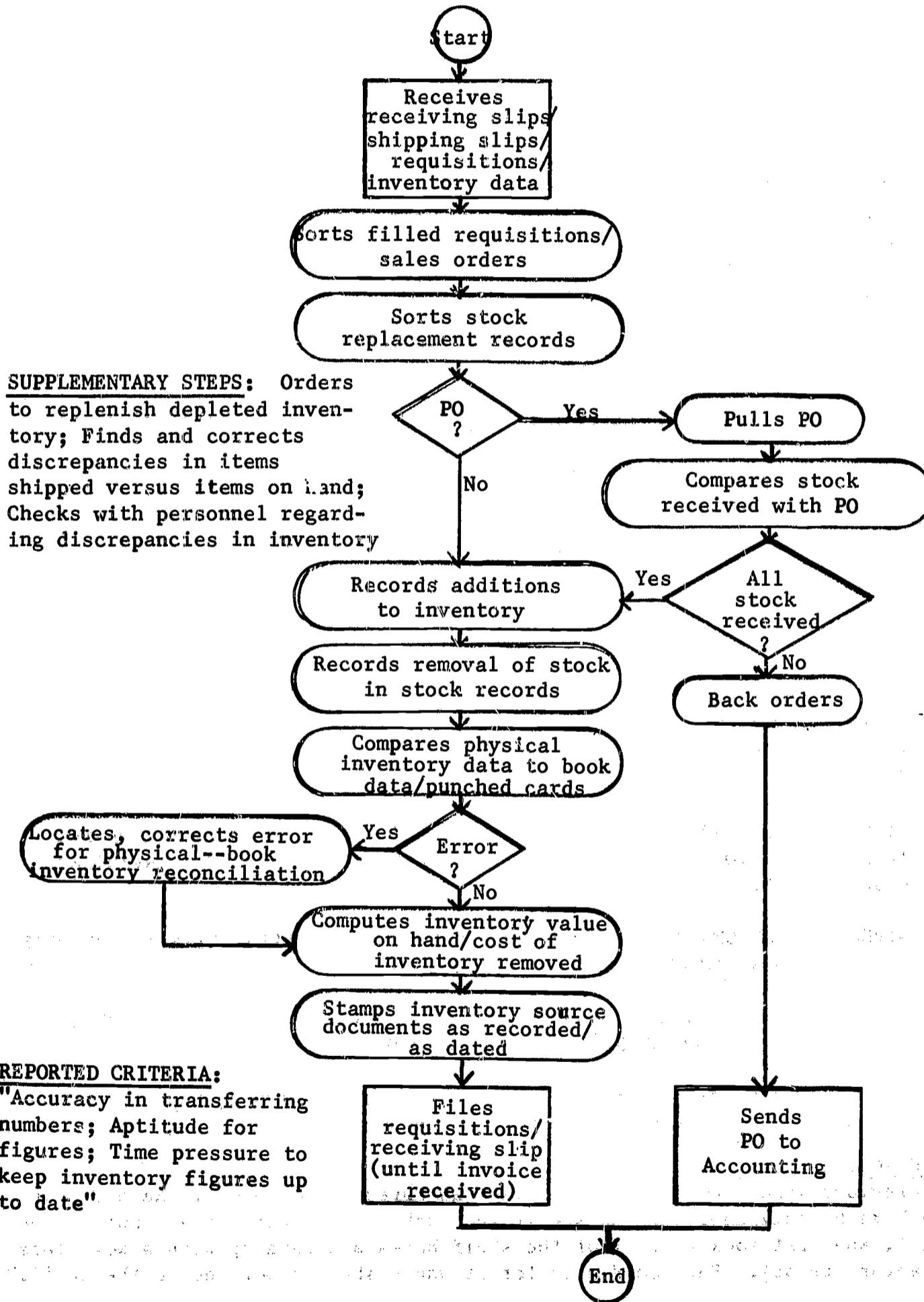
#### EDUCATIONAL CUES

Statistical typing  
Recordkeeping  
Counting stock  
Manual dexterity

#### SOFTWARE

Small goods: textbooks, journals/  
first aid supplies/stationery/  
procedures manuals/testing supplies/  
chemicals/costumes  
Supply requisitions  
Packaging materials  
Packing slips  
Billing forms  
Supplies catalogues  
Bin tags  
Stock cards  
Shipping/receiving tickets  
Punched cards

2. GIVEN OFFICE SUPPLIES DOCUMENTS AND COMPANY SALES LISTINGS, THE WORKER UPDATES INVENTORY RECORDS. (22 task sheets)



3. GIVEN AN INVENTORY FORM, THE WORKER TAKES A PHYSICAL INVENTORY. (6 task sheets)

Receives inventory form

Goes to stock location

Follows aisle plan for checking all stock

Checks shelves/items on shelves for damage/wear/dating

Counts (weighs, measures, if necessary) each piece of stock

Tags stock as counted

Recounts if inventory-form count and physical count disagree

Compiles itemized list of stock needed/on hand/missing/location of items

Types/writes inventory reports

Photocopies inventory reports

Delivers report to Purchasing/Accounting/Sales/Production

SUPPLEMENTARY STEPS: Consults warehouse/supplier listings; Types/writes orders; Mails orders to suppliers

4. GIVEN PRODUCTION AND SHIPPING DATA, THE WORKER RECORDS FINISHED-GOODS INVENTORY. (7 task sheets)

Receives production and shipping data

Pulls previous finished-goods inventory form

Writes ending inventory figures from old form onto new form

Totals production figures from computer printout/ending inventory and production figures

Subtracts shipments/production losses

Checks final finished-goods inventory figures

Routes finished-goods inventory report

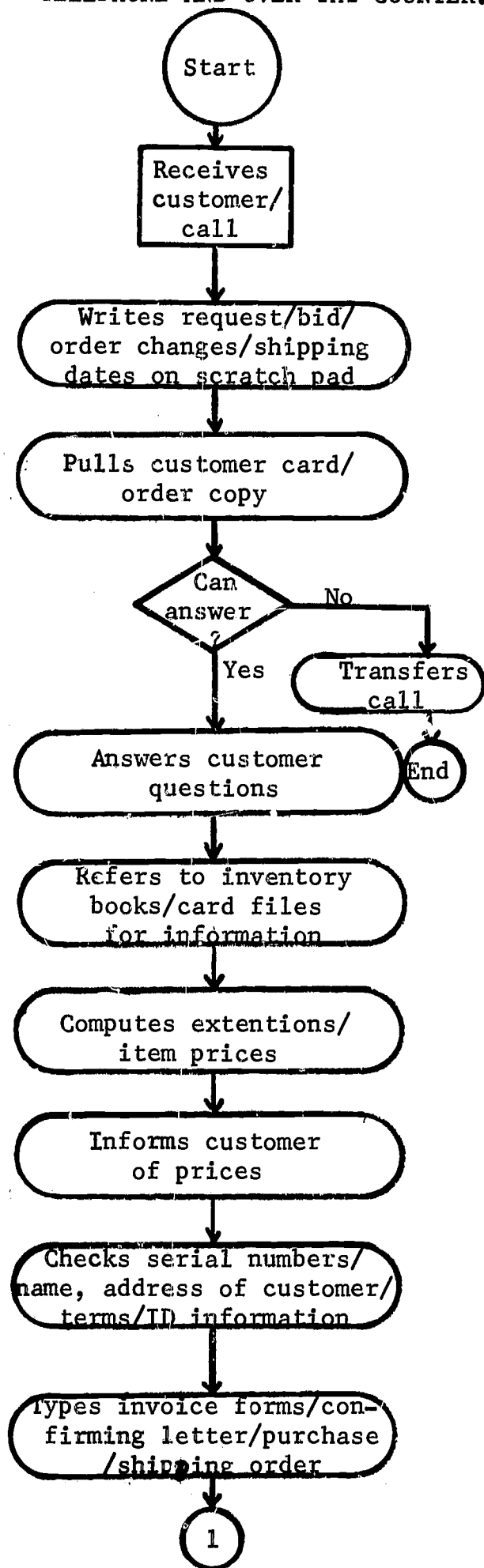
5. GIVEN REQUEST FROM PRODUCTION THAT STOCK IS NEEDED, THE WORKER SELECTS, RECORDS (FROM IN-STOCK TO IN-PROCESS INVENTORY), AND SENDS STOCK TO PRODUCTION. (4 task sheets)
6. GIVEN THE RESPONSIBILITY OF MAINTAINING AN UPDATED DESCRIPTION OF EACH ITEM IN INVENTORY, THE WORKER PERIODICALLY COMPILES REVISED INVENTORY DESCRIPTIONS. (1 task sheet)
7. GIVEN SEMI-AUTOMATED STOCK CONTROL REPORTS, THE WORKER EDITS THE REPORTS BEFORE SENDING TO KEYPUNCHING. (1 task sheet)
8. GIVEN A SUBSTORE LOW IN STOCK, THE WORKER REPLENISHES STOCK BY PHYSICALLY TRANSFERRING WAREHOUSE SUPPLIES TO SUBSTORE. (1 task sheet)
9. GIVEN ROUGH DRAFT OF INVENTORY REPORT, THE WORKER TYPES, DUPLICATES AND SENDS COPIES OF INVENTORY REPORT TO SALESMEN. (1 task sheet)

INVENTORY CRITICAL INCIDENT

"A previous worker was assigned to make an inventory of books. Rather than check each individual card to see if the book was checked out and not on the shelf, she just took a count of the shelf books and came up with a worthless inventory report. She would also forget where she was working on the shelf."

7. SALES

1. GIVEN CUSTOMER CALL OR IN PERSON, THE WORKER HANDLES REQUESTS OVER THE TELEPHONE AND OVER THE COUNTER. (25 task sheets)



## ACQUISITION

## RECEIVES

customer/telephone call

## PROCESS

## Writes

request to increase order/all necessary information on scratch pad/request for ID card/credit rating on card/order changes/shipping dates/bid offer on house

## Pulis

customer card/order copy

## Answers

customer questions

## Transfers

call to Public Relations director

## Refers

to inventory books for items ordered/  
card file for descriptive information

## COMPUTES

extensions on prices/item prices

## INFORMS

customer of prices

## CHECKS

serial, model numbers/name, address of  
customer/cash, credit terms/customer ID  
information

## TYPES

invoice forms, numbers/purchase order/  
confirming letter/shipping order

## Stamps

order form with customer address plate

## Locates

ordered parts

## RECORDS

sort-code numbers of parts on invoice/  
order in log/sending of new ID card

## DISPOSITION

## MAILS

confirmation letter/ID card to customer

## FILES

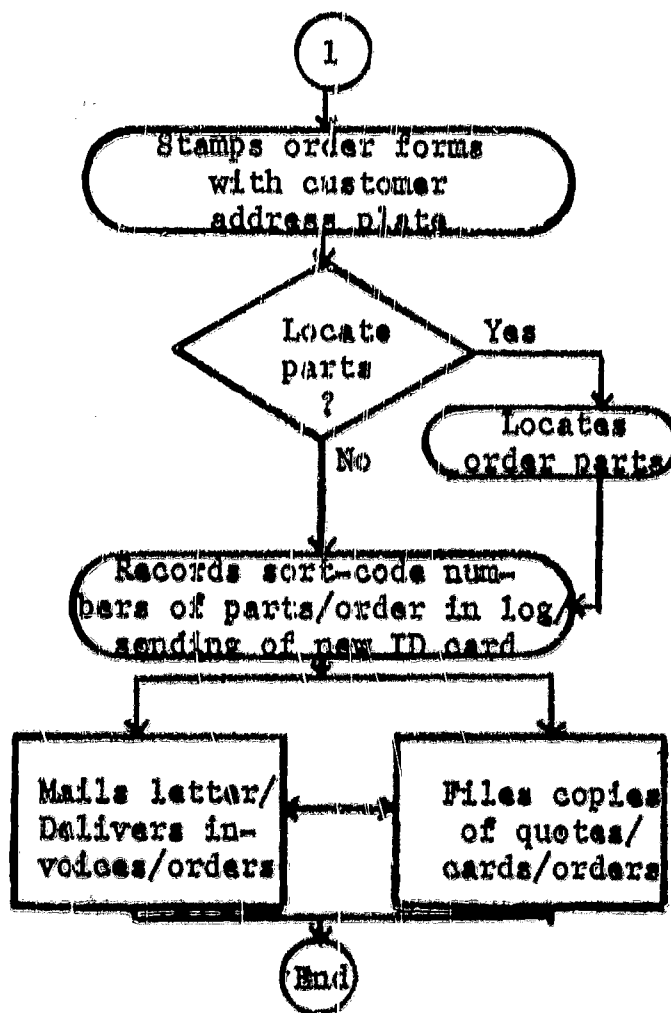
copy of quote/customer card/copy of  
shipping order/credit card

## DELIVERS

invoice to Accounting/purchase order to  
salesman/copy of shipping order to cus-  
tomer/sales orders to Shipping

SUPPLEMENTARY STEP: Arranges appointment  
to see house with customer and salesman.



HARDWARE

Calculator  
Telephone  
Files

SOFTWARE

Customer address plate  
Customer card/order  
Inventory books

EDUCATIONAL CUES

Accuracy  
Computational skills  
Courtesy  
Communication skills  
Checking

REPORTED CRITERIA: "Gives accurate information rapidly; Deal effectively with customers being courteous and tactful."

2. GIVEN CUSTOMER REQUESTS AND CLASSIFIED ADS, THE WORKER ARRANGES LAYOUTS AND DISPLAY FOR ADS. (14 task sheets)

Receives classified ads/cancellation request

Devises eye catching display/graphs, charts showing needed customer data

Draws sketch of art work

Arranges ads on paste-up sheet/display

Types paste ups on glossy paper/offset mats/cancellation orders/sales letters

Proofreads all typewritten material and ads

Obtains corrections on layout/orders to be cancelled

Cuts ads from paper

Pastes on cancellation order

Corrects proofs

Delivers paste up and sales letter with sketch to Composing

Sends proof to customer/cancellation order, charts, graphs to Control Room

SUPPLEMENTARY STEPS: Informs customer on progress of layout; Reschedules to speed up progress if necessary; Observes process of turning ad copy layouts into finished display ads"

HARDWARE

Typewriter

SOFTWARE

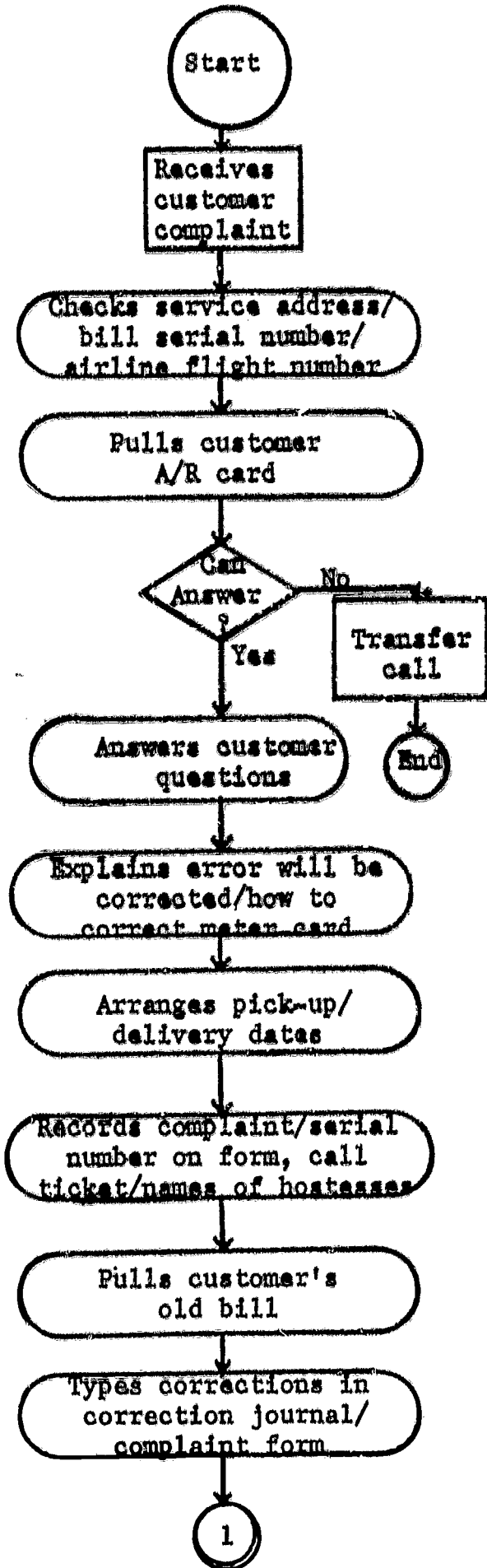
Ads  
Graphs and charts  
Glossy paper  
Offset mats

EDUCATIONAL CUES

Technical vocabulary  
Typing  
Neatness  
Good grammar

REPORTED CRITERIA: "Concentration on copy and accuracy in making needed corrections a must; Deadlines to be met."

3. GIVEN CUSTOMER COMPLAINTS, THE WORKER ANSWERS QUESTIONS AND SOLVES CUSTOMER PROBLEMS. (13 task sheets)

HARDWARE

Telephone  
Files  
Typewriter

SOFTWARE

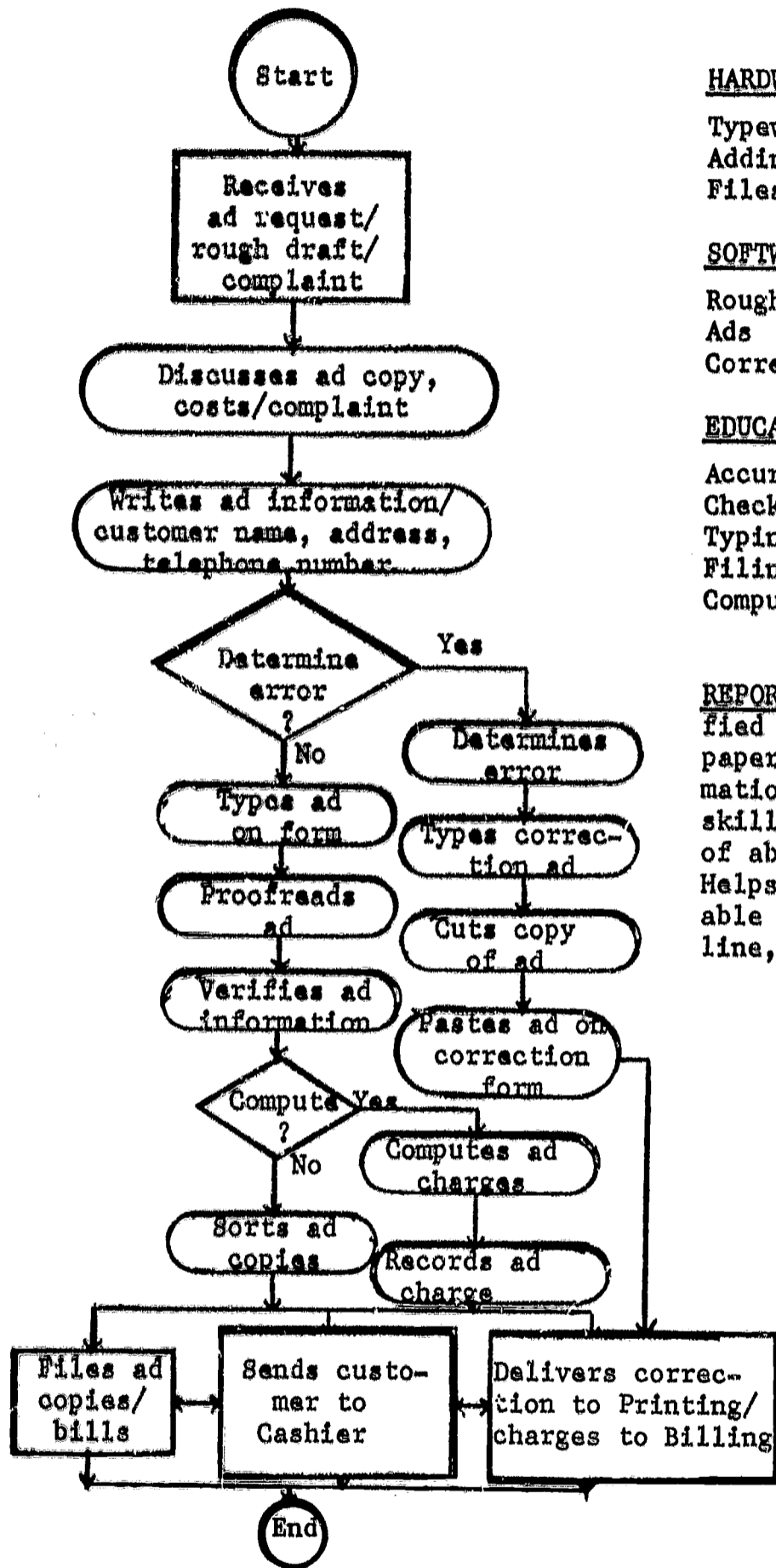
Customer file  
Invoices  
Bills  
Call tickets  
Complaint form

EDUCATIONAL CUES

Checking  
Typing  
Filing  
Courtesy  
Tact

REPORTED CRITERIA: "Knowledge of handling people efficiently and courteously; Keep customers happy; Use tact and give the customers the benefit of the doubt"

4. GIVEN CUSTOMER REQUESTS, ROUGH DRAFTS, OR COMPLAINTS, THE WORKER HANDLES CLASSIFIED ADS AND AD COMPLAINTS FOR CUSTOMERS. (12 task sheets)



HARDWARE

Typewriter  
Adding machine  
Files

SOFTWARE

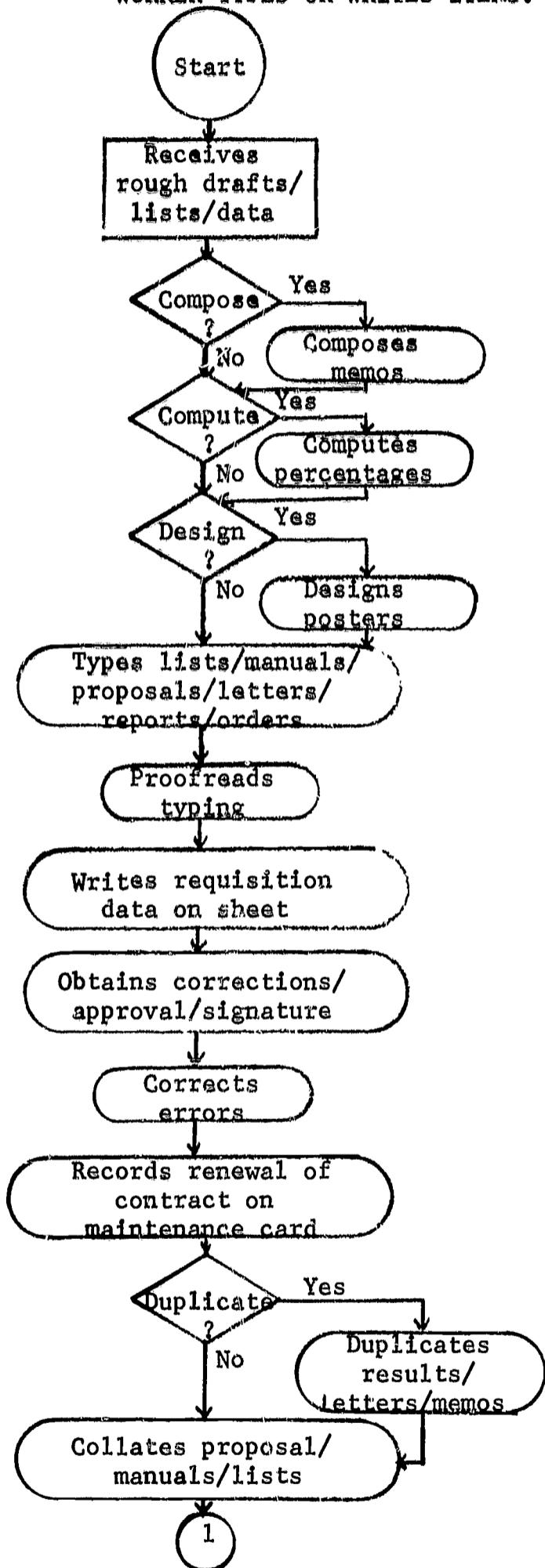
Rough drafts  
Ads  
Correction forms

EDUCATIONAL CUES

Accuracy  
Checking  
Typing  
Filing  
Computational skills

REPORTED CRITERIA: "Customer satisfied that ad appears correctly in paper; Accurate gathering of information from customer; Good English skills; Able to take quite a bit of abuse without losing temper; Helps to have knowledge of acceptable words, number of words to a line, and costs for ads"

5. GIVEN ROUGH DRAFTS, PROPOSALS, LISTS, AND OTHER SOURCE DOCUMENTS, THE WORKER TYPES OR WRITES ITEMS. (19 task sheets)



## ACQUISITION

## RECEIVES

rough drafts of rate manuals, bid proposals, public relations survey results/weekly bulletins/salesmen's reports/list of sold commercials/requisition data sheet/lists of orders/purchase orders or typed forms on prospective subscribers/list of subcontractors/ledger sheets/customer contracts/bids and specifications

## PROCESS

## COMPOSES

memos from information received

## COMPUTES

percentages for survey results

## Designs

posters

## TYPES

list of available commercial time/mail labels/order lists/prospective lists of customers/card form on bid details/rate manuals/bid proposals/cover letters/memos/stencil of price bulletins/salesmen's reports/edit cards with time, address, limit of customer credit/charge tickets/renewal contracts

## Proofreads

typewritten materials

## Writes

requisition data sheet

## Obtains

correction, approval from dictator/signature of customer on renewal contract

## Corrects

errors

## RECORDS

renewal of contract on maintenance card

## DUPLICATES

survey results/cover letters/memos/price bulletins

## Collates

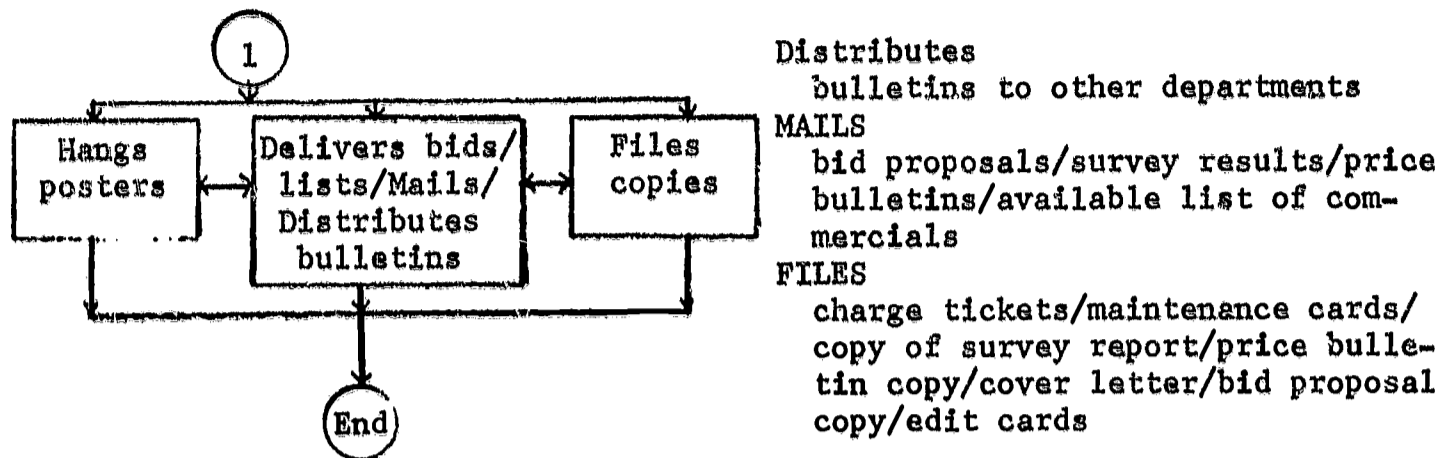
duplicated and typewritten reports or price bulletins

## DISPOSITION

## DELIVERS

bids and specifications to engineers/rate manuals to dictator/prospect lists to supervisor/copy of renewal of contract to customer



HARDWARE

Typewriter  
 Duplicator  
 Calculator  
 Files

SOFTWARE

Orders  
 Lists/bulletins  
 Contracts  
 Bids  
 Maintenance, edit cards

EDUCATIONAL CUES

Typing  
 Computational skills  
 Filing  
 Neatness  
 Accuracy

REPORTED CRITERIA: "Typing must be 100 percent accurate; Must be acquainted with bid terminology"

6. GIVEN INCOMING MAIL, NEW ORDERS, AND CHANGES, THE WORKER CHECKS, TYPES, AND DISTRIBUTES CUSTOMER ORDERS. (10 task sheets)

## ACQUISITION

## RECEIVES

new order, order changes/printout of commercial (TV) orders

## PROCESS

## CHECKS

order for accuracy/total of individual orders/available commercial time

## SORTS

orders and changes/printout orders

## COMPUTES

extensions, weights

## RECORDS

items ordered, order number, shipping date, cost, quantity/commercial time sold

## TYPES

order number, customer name on record cards, customer order cards/memo listing orders, dates/file cards on customer order/customer order on form letter/order acknowledgement

## Proofreads

typewritten materials

## DUPLICATES

orders/changes

## COMPILES

customer file

## Inserts

copy of product order in customer file

## DISPOSITION

**MAILS**

memo to main office/copy of acknowledgement to customer

**DELIVERS**

file to another department/copies of acknowledgement to foreman, supervisor

**Distributes**

orders to manager, supervisor, lab department, traffic manager/copies of production order to six other departments

**FILES**

new orders/order cards/copy of acknowledgement/printout orders

**HARDWARE**

Typewriter  
Duplicator  
Files  
Calculator

**SOFTWARE**

Price and weight book  
Orders  
Printouts

**EDUCATIONAL CUES**

Accuracy  
Typing  
Filing  
Computational skills

**REPORTED CRITERIA:** "Must accurately record items; Must know code words, technical vocabulary"

7. GIVEN PRODUCT INFORMATION REQUESTS, THE WORKER COMPILES AND MAILES PUBLIC RELATIONS ADVERTISING MATERIALS TO CUSTOMERS AND PROSPECTIVE CUSTOMERS. (4 task sheets)

Receives product information requests

Checks orders

Records index card with data of potential customer/materials to be sent

Compiles requested literature

Types mailing address

Packages requested materials

Sends requested catalog to Mailing

Files index card

Delivers packages to Mailing

8. GIVEN PUNCHED CARDS, SCHEDULE INFORMATION, AND COMMERCIAL CONTRACTS, THE WORKER ARRANGES SCHEDULES FOR COMMERCIALS ON THE AIR. (5 task sheets)

Receives radio log schedule/punched cards/copy of network program changes/commercial contract sheet/salesman's order

Obtains calendar for commercials

Checks commercials to be run/traffic board for conflicts of product advertising

Records programs, times for airing in reminder book

Arranges schedules for commercials, public service announcements/time slots/order of commercials

Sorts punched cards

Counts commercial segments on traffic board

Types tab noting change

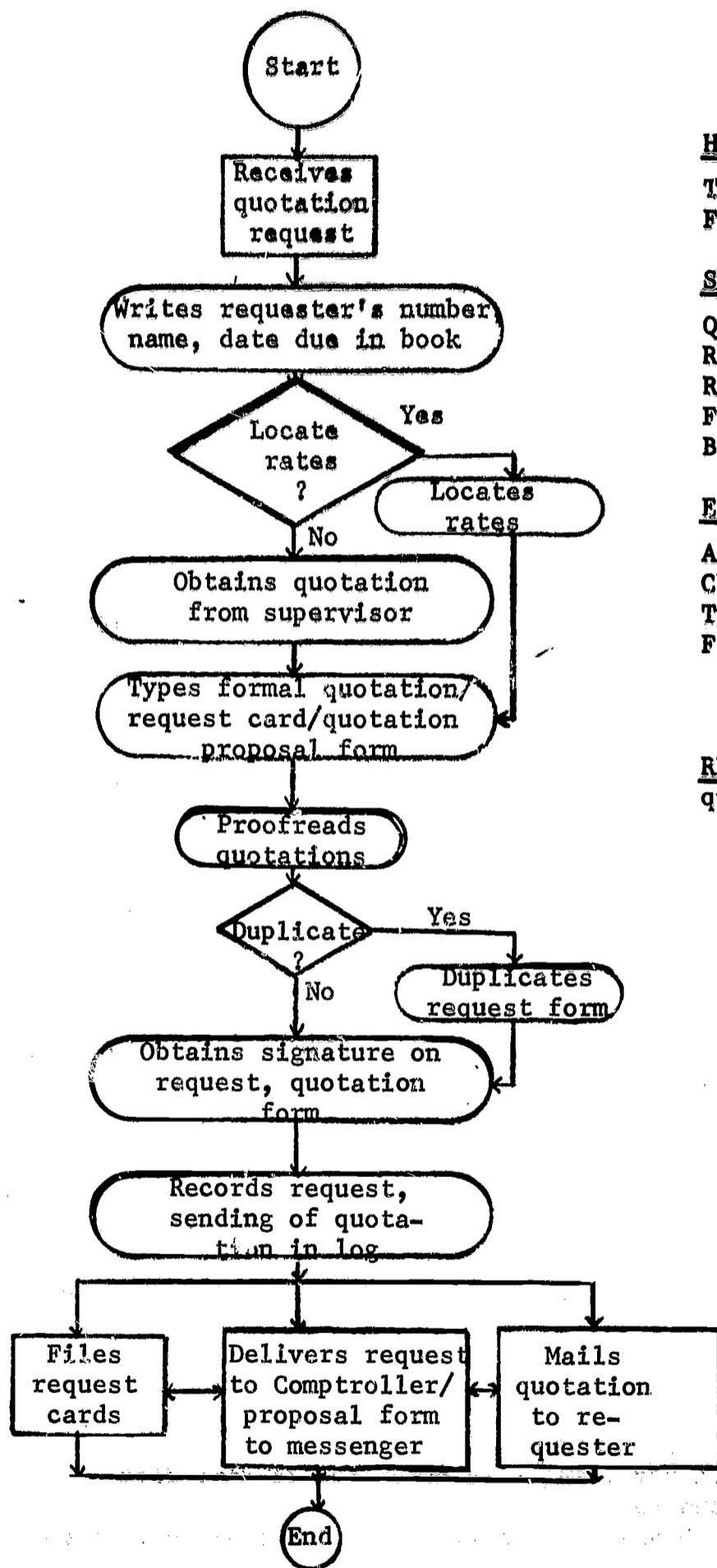
Posts tab noting change on traffic board for day

Places punched cards in visible revolving file according to time slot

Delivers schedule to program announcer

Files copy of network program changes in traffic control files/contract copy

9. GIVEN A REQUEST FROM A CUSTOMER OR SALESMAN, THE WORKER COMPUTES AND TYPES PRICE QUOTATIONS. (8 task sheets)

HARDWARE

Typewriter  
Files

SOFTWARE

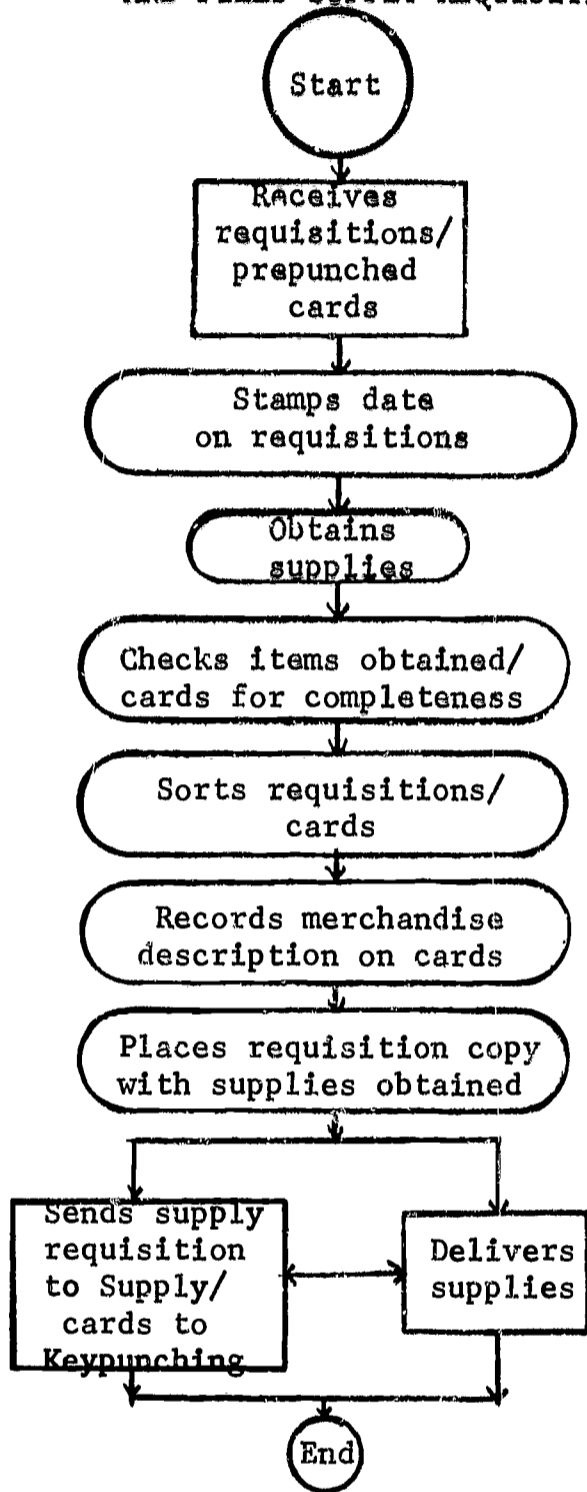
Quotation request book  
Rate book  
Request card  
Formal quotation form  
Bid quotation form

EDUCATIONAL CUES

Accuracy  
Checking  
Typing  
Filing

REPORTED CRITERIA: "A correct quotation is a must"

10. GIVEN COMPANY SUPPLY REQUISITIONS OR PREPUNCHED CARDS, THE WORKER COMPUTES AND FILLS SUPPLY REQUISITIONS FOR COMPANY SALESMEN. (2 task sheets)

HARDWARE

Four-wheel delivery cart  
Microfilm reader

SOFTWARE

Requisitions  
Supplies  
Microfilm catalog  
Microfilm of supply description  
Punched cards

EDUCATIONAL CUES

Checking

REPORTED CRITERIA: "Make sure the correct supplies are obtained; Decisions must be made to substitute color for one not in stock; Attention to details"

11. GIVEN INSTRUCTIONS, THE WORKER OPERATES A GRAPHOTYPE MACHINE TO PREPARE NEW PLATES FOR NEW CUSTOMERS OR ADDRESS CHANGES FOR OLD CUSTOMERS. (1 task sheet)

Receives instructions

Makes up new plates as requested

Destroys old plates

Makes index card for some plates

Returns index card to person from whom instructions were received

Places plates in tray in proper order



12. GIVEN CUSTOMER ACCOUNTS, EXPIRED ADS, AND PROSPECTIVE CUSTOMER LISTS, THE WORKER EXPLAINS AND OBTAINS NEW ORDERS OR EXTENSIONS FOR ADVERTISING. (7 task sheets)

Receives customer accounts/expired ad list/prospective customer list  
Calls customer/prospective customer  
Verifies customer satisfaction of newspaper ad service  
Checks that there are no billing problems/if extension on ad is wanted/day ad is to run/ad wording with customer  
Requests more advertising from customer  
Discusses format and techniques/special services  
Types new ad on form/insertion orders  
Records permission for ad printing/follow-up on ad card  
Delivers ad to Accounting/ad, insertion order form to Printing

REPORTED CRITERIA: "Must be persistent, keep account interested and informed concerning the paper; Must be eager to help customer and do favors for certain clients; Knowledge of newspaper jargon; Know how to deal with public and have patience; Must have a good feeling for advertising"

13. GIVEN CHARGE SLIPS, PURCHASE ORDERS, WARRANTS, AND OTHER SOURCE DOCUMENTS, THE WORKER CHECKS, SORTS, AND FILES REQUIRED DOCUMENTS. (30 task sheets)

#### ACQUISITION

##### RECEIVES

ad charge slips/purchase orders/warrants/file folders/invoices/shipping orders/requests to pull invoices and shipping tickets/sales materials/contracts/ad copies

#### PROCESS

##### SORTS

ad charge slips/warrants/inactive ad copies

##### CHECKS

ad charge slips/purchase order codes/names on purchase orders/routing slips on folders

##### COMPILES

new customer file

##### Pulls

corresponding shipping order or tickets or invoices/purchase orders

##### DUPLICATES

customer invoices

##### Attaches

shipping orders, invoices/purchase orders, acknowledgements

##### DETERMINES

correct filing code for correspondence

#### DISPOSITION

##### FILES

correspondence/purchase orders/charge slips/warrants/folders/shipping orders, invoices/acknowledgements/contracts/sales materials/inactive ads

14. GIVEN TRANSMITTALS INDICATING INSTALLED AND UNINSTALLED EQUIPMENT, THE WORKER CHECKS AND RECORDS EVERY MACHINE MOVED IN A PERIOD OF 30 DAYS. (1 task sheet)

15. GIVEN DICTATION, INCOMING MAIL, AND OTHER SOURCE DOCUMENTS, THE WORKER TYPES CORRESPONDENCE. (24 task sheets)

## ACQUISITION

## RECEIVES

dictation/letters regarding customer complaints/bid specifications/list of customer accounts overdue/account status information/statements/product information request/customer purchase orders/request for information letter/customer request for expenditure report/list of needed bills of lading

## PROCESS

## Pulls

customer files for reference

## CHECKS

letters/proper enclosures/if should be turned over to lawyer for collection/customer orders

## Selects

form letter to use

## TYPES

shorthand notes/letters to customers with complaints/bid specification letters/reminder of overdues to customers/letter to lawyer to start collection procedures/collection letter (form)/customer order acknowledgment/expenditure report/monthly statement/bills of lading

## Proofreads

letters

## Obtains

signature on letters

## DUPLICATES

bid specification letters

## RECORDS

attorney request on customer card/customer request

## DISPOSITION

## FILES

copy of letters

## MAILS

letters/monthly statements

HARDWARE

Typewriter  
Files

SOFTWARE

Form letters  
Customer cards

EDUCATIONAL CUES

Typing  
Filing  
Checking

REPORTED CRITERIA: "Neatly typed letters with good spelling and correct grammar; Answer letters immediately; Careful proofreading; High level ability to read quickly and accurately"

16. GIVEN CUSTOMER ORDERS, THE WORKER INVESTIGATES BACK ORDERS AND OLD, UNFILLED ORDERS. (1 task sheet)
17. GIVEN WRITTEN NOTICE OF PRODUCT DELIVERY, THE WORKER COMPLETES FORMS FOR INSTALLATION OF BUSINESS EQUIPMENT. (1 task sheet)

18. GIVEN CUSTOMER ORDERS, INVOICES, AND MEMOS, THE WORKER CHECKS AND TYPES ORDERS AND MEMOS. (16 task sheets)

Receives customer order/invoices/memos

Sorts invoice copies

Checks if customer has card/shipping order with invoice/invoice information

Types new customer card/credit rating on customer card

Refers to credit rating manual for customer credit rating

Types order, terms on order form, customer card/charges on order form/billing invoice/extension date on invoice

Computes federal, state tax to be charged/total invoices/charges for items on invoice

Checks invoice totals/invoices for completeness

Stamps remittance number on invoice/invoice if cancelled/back order notation

Records invoice totals in salesman's records/shipping date changes

Sorts invoice copies for filing at end of day

Mails invoices to salesman/customer

Files customer card/invoice copy/shipping order

Delivers order form to credit manager/invoices to Billing/back orders to Sales/bills of lading to Key punching

19. GIVEN ORDERS, PRINTOUTS, CHANGES, AND CUSTOMER REQUESTS, THE WORKER POSTS AND RECORDS ITEMS. (9 task sheets)

Receives orders/printouts of newspaper circulation/cards of salesman's calls/newspaper route changes/request to transfer account from another city

Sorts orders

Pulls customer card

Computes district totals of news circulation

Records customer name, address, date, order number, items ordered in log/district newspaper circulation totals/salesman's calls on customer card

Posts district totals to ledger

Codes prices on orders

Types list of monthly sales calls on form

Totals individual customer orders

Files purchase orders/printouts/salesman's card/copy of sales calls form

Delivers orders to supervisor, file clerk/copy of sales calls form to supervisor/route changes to Data Processing/transfer to Accounting

20. GIVEN REQUESTS, THE WORKER HANDLES CORRESPONDENCE CONNECTED WITH TRAVEL CONTRACTS FOR EMPLOYEES' SPEAKING ENGAGEMENTS. (1 task sheet)

21. GIVEN DETAIL TICKETS FOR CHARGE SALES, RETURN OF SOLD MERCHANDISE ON CREDIT, OR PAYMENTS ON ACCOUNT, THE WORKER MICROFILMS ALL DETAIL TICKETS. (1 task sheet)

22. GIVEN INCOMING MAIL OF NEWSPAPERS AND MAGAZINE ADVERTISEMENTS FROM CLIPPING AGENCY, THE WORKER SORTS AND FILES ADS FOR COMPANY RECORDS. (1 task sheet)

23. GIVEN REVISIONS, PRICE LISTS, MAILING LISTS, OR GALLEY PROOFS, THE WORKER UPDATES MANUALS, CATALOGS, PRICE LISTS, AND CUSTOMER ACCOUNTS. (9 task sheets)

Receives catalog revisions/new price lists/new pages for books/galley proofs/customer account cards/ mailing lists  
Checks changes/galley proof/customer account cards  
Pulls old catalog/pages  
Types revisions  
Cuts revisions into strips with one item per strip  
Sorts strips alphabetically  
Pastes strips on paper  
Proofreads revision paper  
Inserts revisions in catalog/manual  
Records changes in catalog  
Duplicates final changed sheet  
Delivers pasted strips, galleys to Printing/final changed sheet to supervisor  
Files changes/ mailing list changes

24. GIVEN MEMOS, CUSTOMER LETTERS OF COMPLAINT, AND COPIES OF TV COMMERCIAL INFORMATION, THE WORKER COMPOSES AND TYPES ITEMS. (8 task sheets)

Receives memo of coming event/copy of commercial (TV) information/customer letter of complaint  
Composes necessary information for memo, calendars/rough commercial copy/answer to customer letter  
Refers to catalogue for verification of prices and other requested information  
Types memo and publicity copy for coming events/commercial information/composed and form letters  
Proofreads commercial copy  
Records commercial information on dubbing sheet, instruction card  
Determines literature to enclose  
Files copy of publicity sheets/dubbing sheets  
Places memo in memo box  
Delivers dubbing sheet to Control room

25. GIVEN A LIST OF NEW BOOKS TO BE PUBLISHED, THE WORKER PROCESSES DUMMY BOOKS. (1 task sheet)

Receives list of new books to be published  
Types letter to authors or editors requesting data  
Files copy of letter  
Receives dummy books from Printing  
Pastes book jacket on dummy book  
Mails dummy book to Photographing  
Receives dummy book with glossy photographs  
Checks for correctness and completion  
Mails dummy book to Engraving  
Receives art work plates  
Checks art work plates for correctness  
Mails art work plates to Engraving  
Receives art work plates, dummy book, glossy photographs



Files photographs  
Delivers plates to Printing  
Holds dummy book in specified box

26. GIVEN PUBLIC RELATIONS PROMOTIONS INFORMATION, THE WORKER ASSISTS THE COMMITTEES IN PROMOTIONS ACTIVITIES. (1 task sheet)

Mails entry blanks to candidates for "Teacher of the Year"  
Receives completed entry blanks from candidates  
Types candidates name on card  
Sorts cards by districts  
Mails cards to judges for elimination  
Receives cards of semi-finalists  
Files cards alphabetically  
Types news release announcement naming semi-finalists and letter to semi-finalists  
Orders plaques and certificates for winners  
Mails cards of semi-finalists to judges for elimination  
Receives cards of finalists  
Files cards alphabetically  
Types news release announcing finalists/letter to finalists notifying them to appear for final competition

27. GIVEN TICKETS AND MERCHANDISE, THE WORKER HANDLES LAY-AWAY. (1 task sheet)
28. GIVEN A LIST OF PLANTS CARRYING THE COMPANY'S PRODUCTS, THE WORKER TRACES BY TELEPHONE THE BUSINESSES NOT REPORTING GOODS SOLD OR MONIES COLLECTED. (1 task sheet)
29. GIVEN A REQUEST FOR A COMMERCIAL PHOTOGRAPHER TO TAKE PICTURES OF EQUIPMENT MANUFACTURED, THE WORKER WRITES THE ORDER AND ARRANGES DATES FOR PHOTOGRAPHING. (1 task sheet)
30. GIVEN A REQUEST, THE WORKER COLLECTS AND COLLATES FOLDERS OF PAPER SAMPLES FOR SALESMEN OR CUSTOMERS. (1 task sheet)
31. GIVEN A REQUEST FOR INSURANCE INFORMATION, THE WORKER DETERMINES ELIGIBILITY OF CUSTOMER, COMPUTES RATES, AND INFORMS CUSTOMER OF INSURANCE COVERAGE. (1 task sheet)
32. GIVEN THE RESPONSIBILITY OF PRODUCING A SALES PLAN, THE WORKER COMPILES A SALES PLAN FOR DEPARTMENT STORE YEARLY SALES. (1 task sheet)

SALES CRITICAL INCIDENTS

"When assigned to check on back orders, he devised a summary sheet needed to accumulate the information. The sheet is now retained where all the salesmen have access to it, so that several people do not have to answer the same questions again and again."

"The worker took an ad for a burglar alarm company and erred in writing the copy. He wrote 'Must have burglar experience.' The company complained that they were deluged with calls and requested a correction and rerun."

"Today a customer called in an order for a tractor gear. The worker did a good job of 'suggestion selling,' which is suggesting those associated parts which will be needed to install the gear. By having a thorough knowledge of these parts, the worker was able to sell the customer additional, necessary parts."

"During a peak rush time in the summer months when many more people in the area were ordering milk, the employee was exceptionally efficient in getting the orders issued to the deliverymen on time without causing any late deliveries to customers."

"Employee does not get enough information on the phone from customers regarding their placement of orders. One instance of this was when a customer wanted the order to be specially delivered in an emergency to a restaurant and the employee failed to make a note of this special delivery to the routeman."

"Because of the Apollo 11 moon flight, much of the regularly scheduled broadcasting had to be delayed as well as all the commercials. The worker received a 14-page instruction sheet from the network concerning rescheduling information. She did a marvelous job of figuring it out and rescheduling the original programs and commercials."

"The worker once failed to log a commercial that had been sold. She thought she had already posted it, but she hadn't. As a result the customer complained, and the salesman of the account lost his commission for it."

8.1 CLIENT RELATED, HOTEL/MOTEL

1. GIVEN GUEST'S CHARGES, THE WORKER POSTS THE CHARGES TO ROOM FOLIOS.  
(4 task sheets)

Receives telephone charges/cleaned laundry/laundry tickets/restaurant tickets  
Pulls room folio  
Checks all room charges  
Posts telephone, laundry, and restaurant charges on posting machine  
Totals all charges at end of day  
Batches tickets and adding machine tapes with rubber band  
Files room folio  
Places telephone, laundry, and restaurant tickets in box/cleaned laundry on shelf  
Delivers batched tickets to manager

HARDWARE

Posting machine  
 Adding machine (10-key)

SOFTWARE

Laundry  
 Laundry tickets  
 Restaurant tickets  
 Telephone charges

EDUCATIONAL CUES

Computational skills

REPORTED CRITERIA: "Accuracy important to avoid error on guest's bill; Totals must balance"

2. GIVEN COMPLAINT, THE WORKER INTERACTS WITH PEOPLE IN NEGOTIATING COMPLAINTS OF GUESTS AND EMPLOYEES. (2 task sheets)

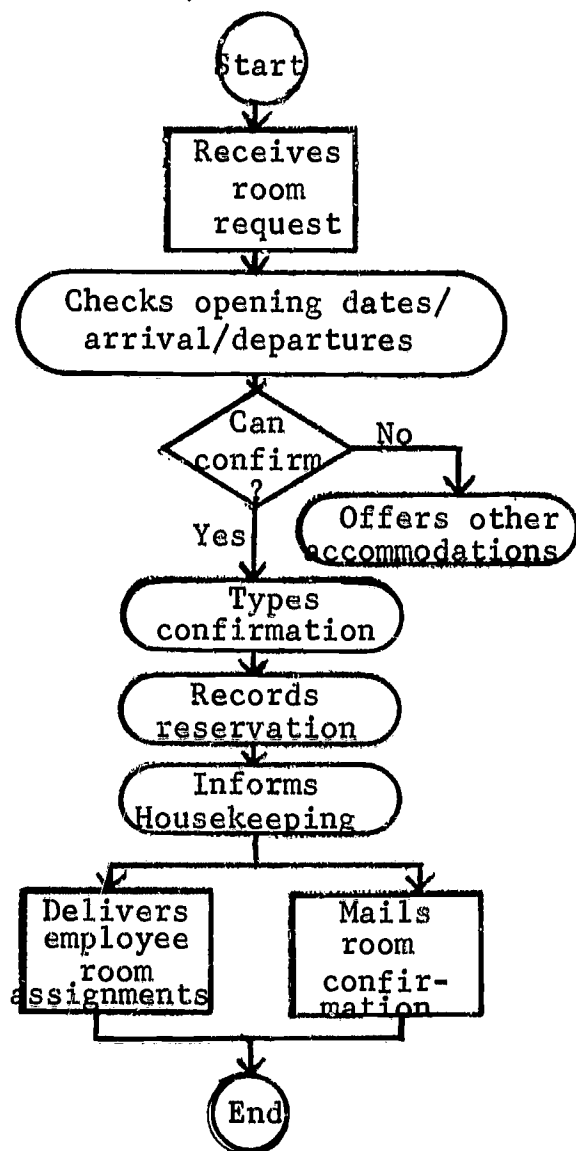
Receives complaint  
Records complaint information  
Consults reference manuals or files  
Discusses complaint and offers apology  
Negotiates solution or  
Refers guest to Assistant Manager

3. GIVEN REQUESTS FOR ROOMS BY GUEST, THE WORKER CHECKS IN GUESTS. (5 task sheets)

Receives guests requesting rooms  
Pulls copy of reservation slip  
Checks vacancies or reservation cards  
Requests guest complete registration card or room folio  
Records data of stay on registration card/data on check-in slip  
Assigns room number  
Obtains room key  
Calls bellman to show guest to room  
Writes pertinent guest information on guest invoice  
Types room folio  
Delivers room key to motel/hotel guest  
Distributes copy of guest invoice to Cashier, telephone operator, room slot  
Files reservation card in visible file/check-in slip/room folio

REPORTED CRITERIA: "Should not keep guests waiting; Treat all guests alike regardless of station in life; Careful not to overbook a room; Try to satisfy guests at all times"

4. GIVEN A REQUEST FOR ROOMS, THE WORKER HANDLES RESERVATIONS. (2 task sheets)



#### ACQUISITION

RECEIVES  
request for rooms/reservations

#### PROCESS

CHECKS  
dates for openings/arrival date, room type, rate, departure date, name, and address if guaranteed reservation/reservation  
(Confirms) reservations  
(Offers) other accommodations

TYPES  
confirmation form

RECORDS  
suits ten days in advance

INFORMS  
Housekeeping and Room Service of arrival dates

#### DISPOSITION

MAILS  
reservation confirmation

DELIVERS  
room assignments to employees

#### HARDWARE

Typewriter

#### SOFTWARE

Reservation slips  
Room assignment slips

#### EDUCATIONAL CUES

Typing  
Communication skills

5. GIVEN RESERVATIONS, THE WORKER DETERMINES VACANCIES AND INFORMS STAFF OF CAPACITY. (2 task sheets)

Counts reservations/vacancies

Determines number of check-outs by estimating, adds vacancies, subtracts reservations/number of reservations hotel can accept

Informs staff to close off/leave open for reservations



6. GIVEN INCOMING MAIL/MESSAGES, THE WORKER SORTS, DISTRIBUTES ITEMS TO ADDRESSEES. (4 task sheets)

Receives incoming mail/messages/packages  
Sorts mail for guests and hotel/motel  
Dates and time stamps all mail/messages/mail for guests by machine  
Sorts guest mail alphabetically  
Writes room number on guest's envelopes  
Arranges guest mail by room number  
Records messages/package delivery  
Places guest mail in key boxes by room number  
Calls guest  
Informs guest of item delivered

REPORTED CRITERIA: "Sort mail as quickly as possible"

7. GIVEN GUEST REQUESTING CHECK OUT, THE WORKER PERFORMS TASKS TO CHECK OUT GUEST. (3 task sheets)

Receives guest  
Requests room number  
Pulls room folio/check-in slips/statement  
Checks statement to be sure all is recorded  
Receives cash or check  
Posts items in posting machine and marks "paid"/adds any charges not yet included  
Delivers copy of folio to guest/check-in slip to switchboard operator  
Places tag on room box/turns check-in slip sideways in room file indicating room to be cleaned/payment in cash register  
Records room number on check-out form for maid/guest name and room number in log  
Writes "out" on paid invoice  
Files room folio to await audit

SUPPLEMENTARY STEP: Receives paid hotel bill to deliver to switchboard operator

8. GIVEN BOOKINGS OF ACTIVITIES, THE WORKER TYPES A FUNCTION SHEET TO INFORM THOSE CONCERNED. (1 task sheet)

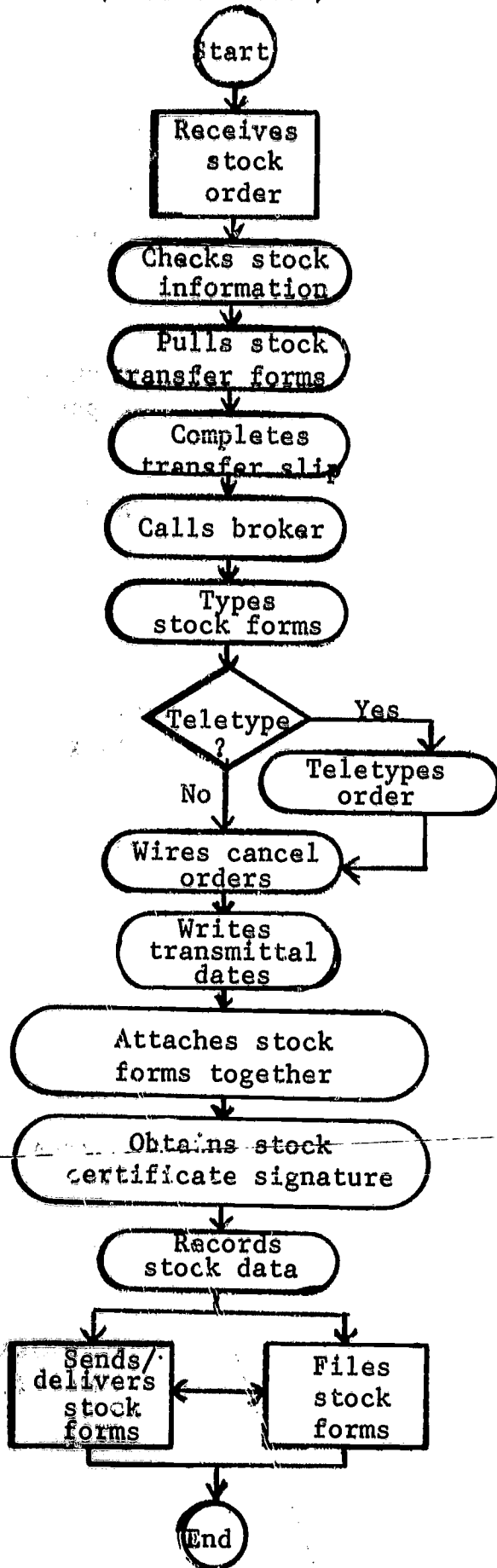
Receives bookings book/number of rooms occupied by specific guests/type of function--food or meeting/time/number of persons  
Types information of each function on liquid process master  
Duplicates 150 copies of function sheet  
Places function sheets in mail boxes of specific guests' rooms  
Holds copies of function sheets three days before discarding

HOTEL/MOTEL CRITICAL INCIDENT

"The worker wrote down the number of the guest's room instead of the amount of money that should be charged for the phone calls on the bill. The guest questioned this amount and the employee had to write in an adjustment on the bill in pen and then make a credit on the bookkeeping machine."

## 8.2 CLIENT RELATED, SECURITIES

9. GIVEN SOURCE DOCUMENTS SUCH AS STOCK CERTIFICATES AND CUSTOMER ORDERS, THE WORKER CHECKS AND TYPES FORMS FOR BUYING, SELLING, AND TRANSFERRING STOCKS. (9 task sheets)



## ACQUISITION

## RECEIVES

customer information/stock ownership/stock certificate/customer order/written instructions from client/computer sheets

## PROCESS

## CHECKS

stock certificate for signature/customer order for missing information/computer sheets for entries indicating stock delivered out

## Pulls

request for transfer forms from numbers on computer sheets

## Completes

transfer slip

## CALLS

broker regarding account

## TYPES

customer information on account application/agent, stock name, number of shares, stock certificate number on stock ownership form/customer name, name of new owner on stock certificate/stock certificate for transfer of ownership

## (Teletypes)

customer order

## Wires

salesman to cancel open orders

## Writes

date of transmittal on request for transfer form

## Attaches

stock ownership to stock certificate/stock certificate and transfer together/transfer slip to status report

## Obtains

signature on stock certificate

## RECORDS

list of names and quantities of security

## DISPOSITION

## Sends

status report and notice of transfer to New York

## DELIVERS

account application to manager

**Places**

stock certificate in box/customer order on conveyor belt

**FILES**

stock certificate and transfer/request for transfer form

SUPPLEMENTARY STEP: Duplicates letter/stock write-up

HARDWARE

Typewriter  
Teletype  
Conveyor belt  
Telephone  
Files

SOFTWARE

Account application  
Stock certificates  
Computer sheets  
Stock status reports  
Stock transfer forms

EDUCATIONAL CUES

Typing  
Filing  
Communication skills  
Accuracy  
Checking

REPORTED CRITERIA: "Should have some knowledge of stock market, how stock is traded, stock terminology; Must have sharp eye for numbers and not transpose"

10. GIVEN SOURCE DOCUMENTS SUCH AS LETTERS REQUESTING INFORMATION ON SECURITIES OR TELEPHONE CALLS FROM CUSTOMERS, THE WORKER ANSWERS STOCK QUESTIONS AND QUOTATIONS. (6 task sheets)

**ACQUISITION****RECEIVES**

request for quotation/customer complaint letters/telephone calls from brokers regarding dividends not received/form letters requesting missing information on stock certificate transfer

**Obtains**

customer information for transfer form from stockholders file/bid, ask price

**PROCESS****RECORDS**

customer complaint in complaint register

**Writes**

request of caller

**CHECKS**

records for dividend information/daily quote sheet for name of stock/stock summary

**INFORMS**

broker if dividend processed or not/caller of stock quotation/broker of price

**TYPES**

requested information from transfer agent regarding stock transfer/complaint summary sheet and customer data card/date, customer account number, name on sales report card/complaint report/tab for complaint folder

**Proofreads**

all typed materials

**Issues**

instructions for checks if dividend not processed

## DUPLICATES

customer complaint letter

## COMPILES

customer complaint folder

## CALLS

brokers regarding reason dividend was not received/broker to obtain quote  
Inquires

amount of dividend

## RECORDS

receipt/non-receipt of dividend

## DISPOSITION

## FILES

customer data card/customer complaint

## MAILS

answered inquiry

## Sends

quote for which no listing is found direct to New York/customer complaint  
file to ComplaintsHARDWARETelephone  
Typewriter  
FilesSOFTWAREStock quotation chart  
Stock summary  
Complaint register  
Complaint summary sheetEDUCATIONAL CUESCommunication skills  
Typing  
Filing  
Accuracy

REPORTED CRITERIA: "Double check to make sure check was not previously sent;  
Some technical knowledge of brokerage business"

11. GIVEN STOCK TICKETS, CONFIRMATIONS, REQUESTS, AND CHECKS, THE WORKER RECEIVES PAYMENTS, DISTRIBUTES STOCK CERTIFICATES, AND RECORDS STOCK TRANSACTIONS. (10 task sheets)

## ACQUISITION

## RECEIVES

checks/salesman's payout request/stock papers/confirmation/brokers' commission sheets/receipts/status reports/sets of stock and correspondence documents/status sheets/batch tickets/stock dividend sheet

## PROCESS

## Pulls

customer account card/stock certificate

## SORTS

confirmations--bought or sold/stock confirmation sheets by broker/receipts numerically/batch tickets into credit, debit, cash, or checks

## Stamps

time on all documents received from New York/check with endorsement/payout request "paid"

## CHECKS

computer printout sheets for overlooked payout requests/transaction and



amount of commission due broker/name on stock

**DETERMINES**

who is to receive payments for dividends

**COMPUTES**

amount due to cover order confirmation/totals on each customer account card/  
totals of each category of batch tickets

**Compares**

check with confirmation slip in amount, signatures/payout request with  
computer printout sheet/confirmations with status reports for accuracy

**Posts**

stocks delivered to customers account/credit of dividend amount to customer  
account/stock transaction by stock name in stock books/receipts to status  
reports/cash and securities to customer account

**TYPES**

receipt/checks for approved payouts

**Writes**

receipt of completed stock transaction/"kept" on stocks/note to cashier for  
signature on checks for \$10 or less/note to Assistant Manager to sign checks  
over \$10

**Obtains**

cashier signature

**Attaches**

adding machine tapes to batch ticket/batch ticket to bundle of tickets

**RECORDS**

receipt of check on customer account card/stock transaction/receipts in  
account book/code number, name, total on batch tickets

**DISPOSITION****FILES**

check copy/completed stock transaction

**DELIVERS**

completed stock transaction to Credit, Accounting/batched tickets to  
Auditing

**Distributes**

copies of receipt to broker, customer, New York Office

**Places**

checks in safety box/stock confirmation sheets in box/commission sheets,  
stock confirmation on broker's desk

**MAILS**

copies of check to New York/check to customer/stock and receipt to customer  
by registered mail

**HARDWARE**

Endorsement stamp  
Typewriter  
Adding machine  
Checkwriter  
Files

**SOFTWARE**

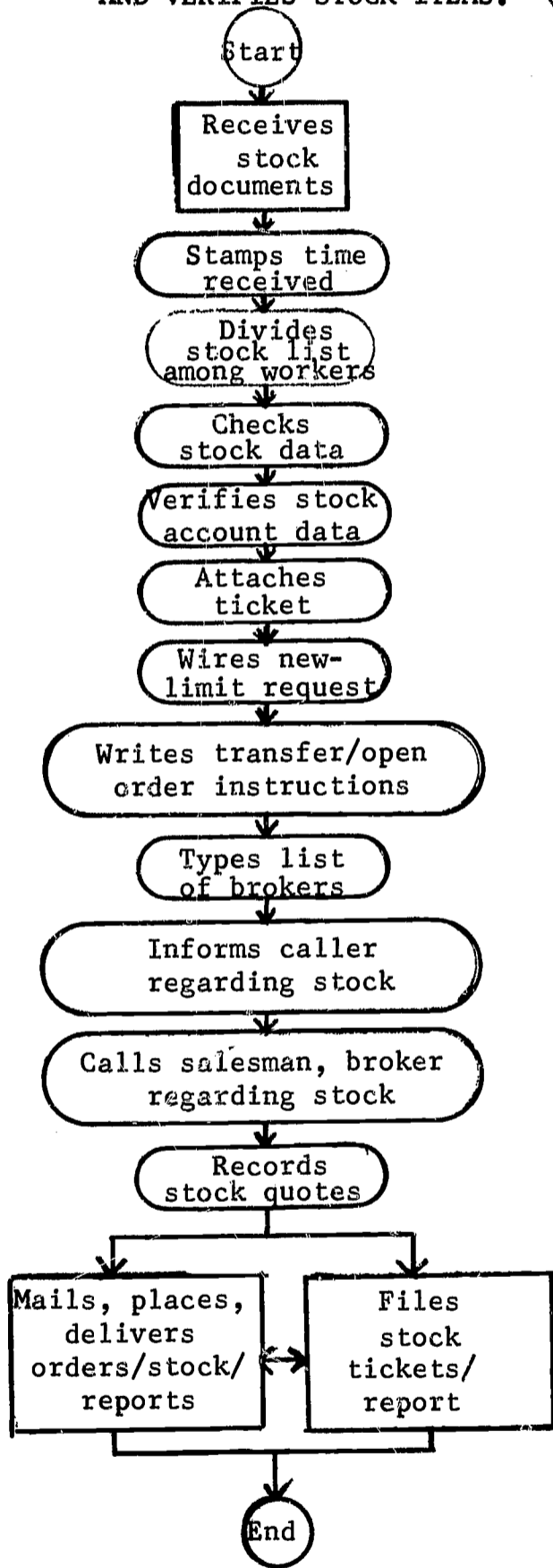
Checks  
Customer account card  
Payout requests  
Stock books  
Commission sheets  
Receipts  
Account book  
Status sheet  
Batch tickets

**EDUCATIONAL CUES**

Typing  
Computational skills  
Checking  
Filing  
Accuracy  
Securities terminology

**REPORTED CRITERIA:** "Should type 55 wpm with high degree of accuracy; Needs to know money and banking jargon and wire abbreviations"

**12. GIVEN DOCUMENTS SUCH AS ORDERS, LISTS, OR ORAL REQUESTS, THE WORKER CHECKS AND VERIFIES STOCK ITEMS. (9 task sheets)**



**ACQUISITION**

**RECEIVES**

customer call/list of brokers/order on conveyor belt system/original ticket/report wire showing transaction/dividend notices/mail/signed instructions from salesman/list of 100 most frequently requested stocks

**PROCESS**

**Stamps**

time on report/mail

**Divides**

100 most frequently requested stocks among three workers

**CHECKS**

information on ticket and report/open orders to locate orders affected by dividend/corrections on orders/stock data/mail with records/if customer account paid/to see if stock is being held

**Verifies**

account accuracy with filed data

**Attaches**

report and original ticket

**Wires**

request for new limit on order

**Writes**

transfer instructions to broker/transfer quote to master list/broker number on confirmation/open order notices to salesman

**TYPES**

list of brokers who have not received confirmations

**INFORMS**

caller whether or not stock is being held

**CALLS**

salesman to inform him of special information/each broker handling stock requesting quotes

**RECORDS**

stock quotes

**DISPOSITION**

**Places**

new orders on wire

222/223

**MAILS**

stock to New York by registered mail

**FILES**

original ticket/original and stapled report

**DELIVERS**

report to salesman/open order notice to Addressing/list of brokers to supervisor

**HARDWARE**

Conveyor belt  
Typewriter  
Telephone  
Files

**SOFTWARE**

Stock order  
List of brokers  
Wires  
Dividend notices  
Stock tickets

**EDUCATIONAL CUES**

Typing  
Communication skills  
Filing  
Accuracy

**REPORTED CRITERIA:** "Salesmen are kept up to date on latest developments on certain orders; Quote sheets are updated daily"

**SECURITIES CRITICAL INCIDENTS**

"Another department had a wrong description of a bond. They could not locate the right records for this security. This employee was asked to help. Although this was not part of his job, he seemed more than glad to assist. He was effective because he was able to make the comparison that the other employee could not make."

"He listed a wrong broker number on a confirmation. By the time the error was discovered many records were made up with the wrong number. It is an additional job to check back all the records and make the correction. This could be avoided if an employee is more conscientious and realizes the consequences of an error."

"Yesterday we sold some securities for a company and she forgot to debit their account. If I hadn't caught it, the account would have showed no balance and we would not have invested the money in any other securities for them."

"A customer had not paid for securities within 7 days. This employee failed to apply to the NY Stock Exchange for an extension of time. As a result the account was put in "violation status." This could subject the firm to criticism by the exchange. This was due to failure to follow-up the account."

13. GIVEN A CHECK POINT IN TIME TO INQUIRE WHY STOCK TRADES HAVE NOT BEEN PAID, THE WORKER WIRES BRANCH STOCK OFFICES REQUESTING REASONS FOR TIME EXTENSIONS FOR PAYMENT AND RECORDS REASONS ON TIME EXTENSION REFUSED OR ACCEPTANCE. (1 task sheet)

8.3 CLIENT RELATED, EDUCATION

14. GIVEN APPLICATIONS OR APPLICANTS, THE WORKER HANDLES APPLICATIONS OF NEW STUDENTS. (8 task sheets)

## ACQUISITION

## RECEIVES

applicant/application/check/pre-registration cards

## PROCESS

## Inquires

nature of visit

## Requests

applicant complete application

## SORTS

pre-registration cards by department

## CHECKS

application for all pertinent information

## COMPILES

new student file

## Requests

transcripts

## Assists

students in selecting schedule/student with information

## TYPES

student records information/form letter of rejection

## Attaches

check to application

## RECORDS

sending of reject letter/reject name on list/grades

## DISPOSITION

## Directs

student to counselor

## DELIVERS

application to typist/student file to Counseling/pre-registration cards to Mailing for department mail boxes

## Sends

information catalog and forms to inquirer/copy of student record information, check to Cashier

## FILES

copy of student record

## MAILS

rejection form letter

HARDWARE

Typewriter

Files

SOFTWARE

Applications

Registration cards

Checks

Student records

EDUCATIONAL CUES

Accuracy

Typing

Filing

Checking

REPORTED CRITERIA: "Pleasant, outgoing personality; Good appearance"



15. GIVEN CLASS TICKETS, PRE-REGISTRATION CARDS, AND REQUESTS TO REGISTER, THE WORKER ASSISTS STUDENTS IN REGISTRATION. (6 task sheets)

## ACQUISITION

## RECEIVES

student registration card/class tickets/request to register/pre-registration card/requested class list/list of entering students/transfer student records

## PROCESS

## CHECKS

registration card for accuracy and completeness/class tickets for physical education requirement/pre-registration card/requested classes

## Codes

transfer student records

## Arranges

students' schedules/interviews

## TYPES

schedule of classes

## Writes

initials on class tickets/student data on registration form/total number of transferred hours

## Stamps

ID card for enrollment proof

## INFORMS

counselor of interview and time

## CALLS

department to see if requested class is open

## DISPOSITION

## DELIVERS

information to student

## Distributes

schedules of classes to Data Processing, main office

## FILES

enrollment materials/registration form/pre-registration card/schedule of classes/transfer papers

HARDWARE

Files  
Typewriter  
Stamp

SOFTWARE

Registration cards  
Class tickets  
ID cards  
Class schedules  
Pre-registration cards

EDUCATIONAL CUES

Filing  
Typing  
Accuracy  
Checking

REPORTED CRITERIA: "Knowledge of all courses required; Obtain and record all information accurately"

16. GIVEN LISTS, SCHEDULES, LETTERS, AND REPORTS, THE WORKER TYPES OR WRITES EDUCATIONAL MATERIALS. (27 task sheets)

## ACQUISITION

## RECEIVES

student enrollment list/weekly schedule/athletes and coach's sports eligibility list/request for verification of driver training certification/rough draft of schedule, letter, or course outlines/curriculum guide/transcript request/syllabi/observation and evaluation of faculty/news articles/photographic plates of news/printed newsletter/application for certifying information/request for information/tests/requests to make accident report/accident claim forms/claim check

## Obtains

driver training file/student transcript/information from accident victim

## PROCESS

## CHECKS

list or schedule for completeness/sports eligibility lists against each other/curriculum guide format/legality of sending transcript/files for previous correspondence from alumnus/syllabi/observation, evaluation sheets/certification application/semester units/rough draft of test

## SORTS

sports eligibility lists alphabetically

## Discusses

solution with donor alumnus

## Writes

weekly schedule information on window board with grease pencil (instructors and exams listing)/course description/shorthand reply to request

## Arranges

layout for newspaper

## TYPES

acceptance, rejection, and alternate letters/lists of students and data for student roster/data sheet on each new student/student code card/student statistical reports/stencil of student enrollment list/weekly schedule on multilith/schedule/sports eligibility lists on master/drivers training verification/list of driver training certificates/letters or course outlines/curriculum guides/summary reports/syllabi/observation and evaluation of faculty/rough draft and final news articles/verification of units in letter/tests on masters/accident report/claim forms

## Proofreads

enrollment lists/schedules/letters/course outlines/syllabi/layout/tests

## DUPLICATES

weekly schedule/sports eligibility lists/curriculum guide/transcript/program/course outline/tests

## Collates

duplicated materials

## Staples

duplicated materials

## Obtains

signature on letters/transcripts/approval of syllabi, program, observation, evaluation of faculty, test, of doctor, nurse on accident report/signature on certification verification

## COMPILES

student file

**RECORDS**

athlete names by sport/doctor's charges/amount of claim checks to ledger  
Pulls

list of driver's training certificates/student lists

**DISPOSITION****Sends**

memo on graduate students to department chairman/back money received with transcripts requests/syllabi to Duplicating/observation, evaluation to Dean/news articles for editing

**DELIVERS**

Special Services a list of class enrollees/window board to another worker/final schedule to Dean/drivers training verification to student/finished letter copies to supervisor/duplicated course outline to professor/layout to Printer/photographic plates to Printing/certificate verification to student

**FILES**

letters in folder/sports eligibility list/copy or stencil of curriculum guide/copy of course program/newsletter/certificate verification/copy of accident report

**MAILS**

letters/sports eligibility lists to all coaches, principals, and athletic directors/list of drivers training certificates to State department/transcripts to applicant/course program/accident form copy to state high school league, parents/claim form/claim check to parents

**HARDWARE**

Typewriter  
Window board  
Duplicator  
Files

**SOFTWARE**

Code card  
Grease pencil  
Enrollment lists  
Weekly schedules  
Reports  
Class schedules  
Checks

**EDUCATIONAL CUES**

Typing (statistical,  
straight copy)  
Accuracy  
Checking  
Proofreading  
Filing

**REPORTED CRITERIA:** "Work under pressure; Tact handling faculty members; Must be trustworthy, keep materials confidential; Minimum shorthand ability; Be familiar with supervisor's abbreviations; Letters must be well arranged; Neat and centered duplicated materials; Must exercise judgment and discretion to avoid friction or possible prosecution; Average typing ability; Must have ability to discover errors in work handed to her; Artistic in layout of news; Words divided properly; Do not end paragraph with one word on a line"

17. GIVEN ABSENTEE REPORTS OR ORAL MESSAGE, THE WORKER CHECKS AND RECORDS ATTENDANCE. (4 task sheets)

**ACQUISITION****RECEIVES**

tardy student/attendance card for absent students/monthly attendance reports for county/telephone message about absentee teachers/parent approval for ill students to go home

## PROCESS

## SORTS

attendance cards alphabetically

## Obtains

reason for tardiness

## COMPUTES

totals on monthly county attendance report

## CHECKS

totals on monthly county attendance report/files for teacher replacement

## DETERMINES

validity of tardy excuse

## CALLS

absent student's home

## Writes

student's name, excuse, arrival time on record sheet/tardy pass/absence reason on attendance card/corrections, totals on monthly attendance report/withdrawal card for each withdrawal listed/information regarding substitute for payroll/excused absence for ill student on absence list

## TYPES

master list of students absent, tardy, excused on master/state report form from summary of attendance/school board report using attendance summary

## Obtains

signature of superintendent on state report form

## DUPLICATES

list of absent, tardy, excused students

## DISPOSITION

## FILES

withdrawal cards/state report form copy

## DELIVERS

tardy pass to student/attendance cards to homeroom teacher/monthly attendance reports and summary of attendance to supervisor/teacher and absentee report and substitute data to Payroll

HARDWARE

Typewriter  
Adding machine (10-key)  
Files  
Telephone

SOFTWARE

State attendance report forms  
Withdrawal cards  
Tardy pass  
Absentee report

EDUCATIONAL CUES

Computational skills  
Typing  
Filing  
Accuracy  
Checking  
Communication skills

REPORTED CRITERIA: "All homes must be contacted and a reason recorded for absence"

18. GIVEN MONIES, THE WORKER HANDLES FUNDS AND FEES FOR STUDENTS AND STUDENT FUNCTIONS. (6 task sheets)

Receives cash box from student sellers/fee for ID card/checks/enrollment cash for fee

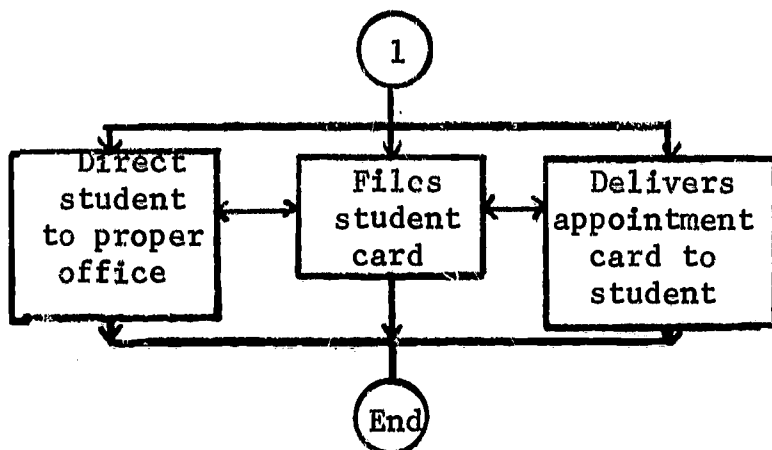
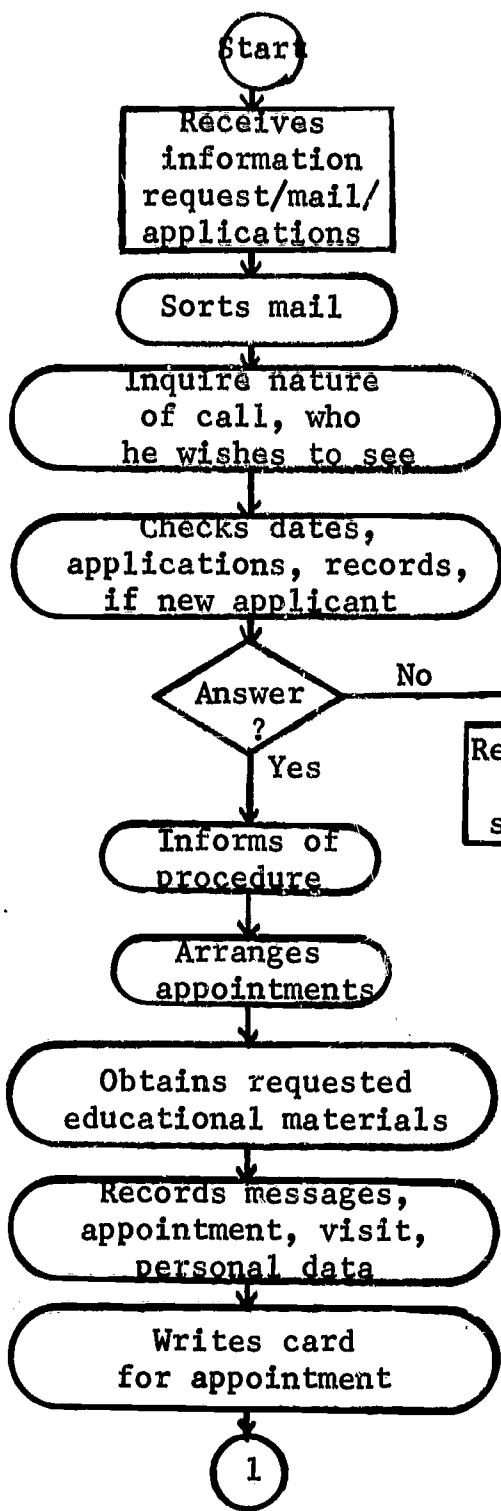
Checks list for fees owed/certification number of supervising teacher

Counts tickets sold/bus fare slips sold/cash



Computes supervising teacher's pay/total supervising teacher pay for city school system  
Checks cash balance against items sold  
Types information from checks to notification forms/fee receipt/list of supervisors and amount of pay for each system  
Mails notification forms to students/lists of supervising teachers to State Department of Education  
Delivers cash box and contents to school office/ID card to student/receipt to enrollee/fee to cashier  
Files checks alphabetically

19. GIVEN TELEPHONE REQUESTS, MAIL, OR APPLICATIONS, THE WORKER PERFORMS TASKS OVER THE COUNTER OR BY TELEPHONE. (12 task sheets)



SUPPLEMENTARY STEP: Posts notices regarding health bulletins on bulletin board.

HARDWARE

Telephone  
Files

SOFTWARE

Mail  
Applications  
Student cards

EDUCATIONAL CUES

Communication skills  
Filing

REPORTED CRITERIA: "Pleasing personality and a good speaking voice; Good telephone manners are necessary; Has to be familiar with overall operation of school; Tact; Friendliness; Helpfulness"

## ACQUISITION

## RECEIVES

telephone request for information on materials/telephone call/caller/  
application for matriculation/mail

## PROCESS

## SORTS

mail

## Inquires

whom caller wishes to see/nature of call

## CHECKS

whether or not new applicant/counselors' calendar/dates with counselor/  
matriculation application/student health record

## Answers

questions

## INFORMS

students of procedure to follow

## Refers

call to instructor

## Arranges

guidance appointments/doctor, nurse appointment

## Obtains

educational materials/forms requested

## RECORDS

nature of student visit/messages or announcements/name, birthdate, college  
semester in counselors appointment book

## Writes

appointment card

## DISPOSITION

## FILES

student health card

## Directs

caller to counselor/caller to proper office

## DELIVERS

appointment card to student/application to student/matriculation application  
to office of admissions/student health card to doctor, nurse

20. GIVEN TRANSCRIPTS, RECORDS, OR ORAL INSTRUCTIONS, THE WORKER CHECKS AND  
COMPILES SCHOOL RECORDS. (10 task sheets)

## ACQUISITION

## RECEIVES

student teaching records quarterly/employment form/request for payment from  
grants budget/grade report/names of ill teachers daily/names of substitutes  
assigned for replacement/student transcripts/instructions/forms on graduate  
students

## PROCESS

## Pulls

approved grants register sheet/visiting professor housing list

**SORTS**

teaching placement by teaching fields/requisition for grants numerically/  
grade reports/transcripts alphabetically

**CHECKS**

biography of employee for previous university employment/requisitions for  
grants for approval signature, time limit/student folder for completeness/  
if still interested in renting

**CALLS**

each person on housing list

**RECORDS**

master list/tentative list of student teacher placement with supervising  
teacher/schedule of courses to employment form

**TYPES**

employment forms/new housing list/duplicating order/copy of registration  
schedule

**Proofreads**

all typewritten materials

**COMPILES**

folder for employee/permanent record

**Writes**

initials approving payment/schedules for substitute/list of available  
graduate students

**Assigns**

graduate students to registration duties

**INFORMS**

graduate students of hours, place, day he works

**DISPOSITION****Sends**

grade report to Dean, department chairman/memo to department chairman for  
information on graduate students

**MAILS**

master list of student teacher placement to college supervisor/grade reports  
to schools/housing lists

**FILES**

master list of student teacher placement/transcripts in student folder/  
housing lists

**DELIVERS**

copy of employment forms to supervisor/approved grant requisition/  
duplicating order to Duplicating/registration schedule to Dean

**HARDWARE**

Typewriter

Files

**SOFTWARE**

Student records

Student/housing lists

Teaching schedules

**EDUCATIONAL CUES**

Proofreading

Checking

Accuracy

Typing

Filing

**REPORTED CRITERIA:** "Accurate evaluation of all  
requests for payment from grants budget;  
Thoroughness"

21. GIVEN STUDENT WORKERS, THE WORKER CHECKS THEIR TYPEWRITTEN WORK. (1 task sheet)

Receives student work  
Checks record for correctness  
Explains mistakes/any violations of procedures/rules  
Instructs student how to make corrections  
Checks final work  
Obtains supervisor's approval  
Files records  
Mails materials to Board of Education

22. GIVEN PERSONNEL LISTS, THE WORKER SENDS APPLICATION FORMS TO SCHOOLS HAVING SPECIAL LEARNING DISABILITY PROGRAMS AND PROCESSES RETURNED APPLICATIONS. (1 task sheet)

Obtains personnel listing of teachers of Special Learning Disability (SLD) programs from SLD programs book  
Sends application forms to schools  
Receives completed applications  
Writes in preliminary report that application has been received  
Sorts applications numerically by teacher certificate number  
Pulls teacher teaching certificate  
Writes type of certificate and expiration date on application  
Files teacher certificate  
Screens application circling questionable items  
Obtains approval of application from supervisor  
Places original copy in SLD book  
Files class list of students enrolled in SLD program  
Mails copy of list to school district

23. GIVEN SOLICITOR, THE WORKER ISSUES PERMITS TO SOLICIT STUDENTS FOR EDUCATIONAL COURSES IN PRIVATE TRADE SCHOOLS. (1 task sheet)

24. GIVEN REQUESTS FOR LECTURERS, THE WORKER PROCESSES INQUIRIES AND CLEARS DATES FOR SPEAKERS AT VARIOUS UNIVERSITIES. (1 task sheet)

Receives requests for lecturers  
Records request and institution, speaker requested, suggested dates  
Obtains signature of supervisor on request  
Types form to requested speaker  
Mails form to speaker  
Receives form from speaker with preferred dates  
Checks logbook for any other lecturer from this university at that same university on that date  
Types form letter to person requesting lecturer  
Proofreads form letter  
Obtains signature of supervisor  
Mails letter  
Receives letter from requesting university confirming date



Records confirming date in logbook

Files all materials by name of requesting university

25. GIVEN REQUESTS FROM PROFESSORS WANTING TO STUDY AT THIS UNIVERSITY, THE WORKER HANDLES CONTRACTS TO HELP PAY THEIR EXPENSES. (1 task sheet)

Receives study request

Date stamps professor's request

Pulls professor's file

Calls persons professor wants to see while here

Arranges motel accommodations

Records arrangements on application

Types contract, pass, and travel card

Files copies of contract, pass and travel card, and copy of form letter in professor's folder

Types form letter for travel authorization

Obtains supervisor's signature

Records contract number

#### EDUCATION CRITICAL INCIDENTS

"When we were getting ready for the annual education conference this year, the worker did a lot of the preparation for it herself without receiving any instructions from me to do so. She keeps a list of the things needed and used from previous years and uses her initiative to do the planning she knows has to be done."

"The worker typed a manuscript and caught an error in a quotation. This manuscript was being prepared in final form and was to be circulated as teacher resource information."

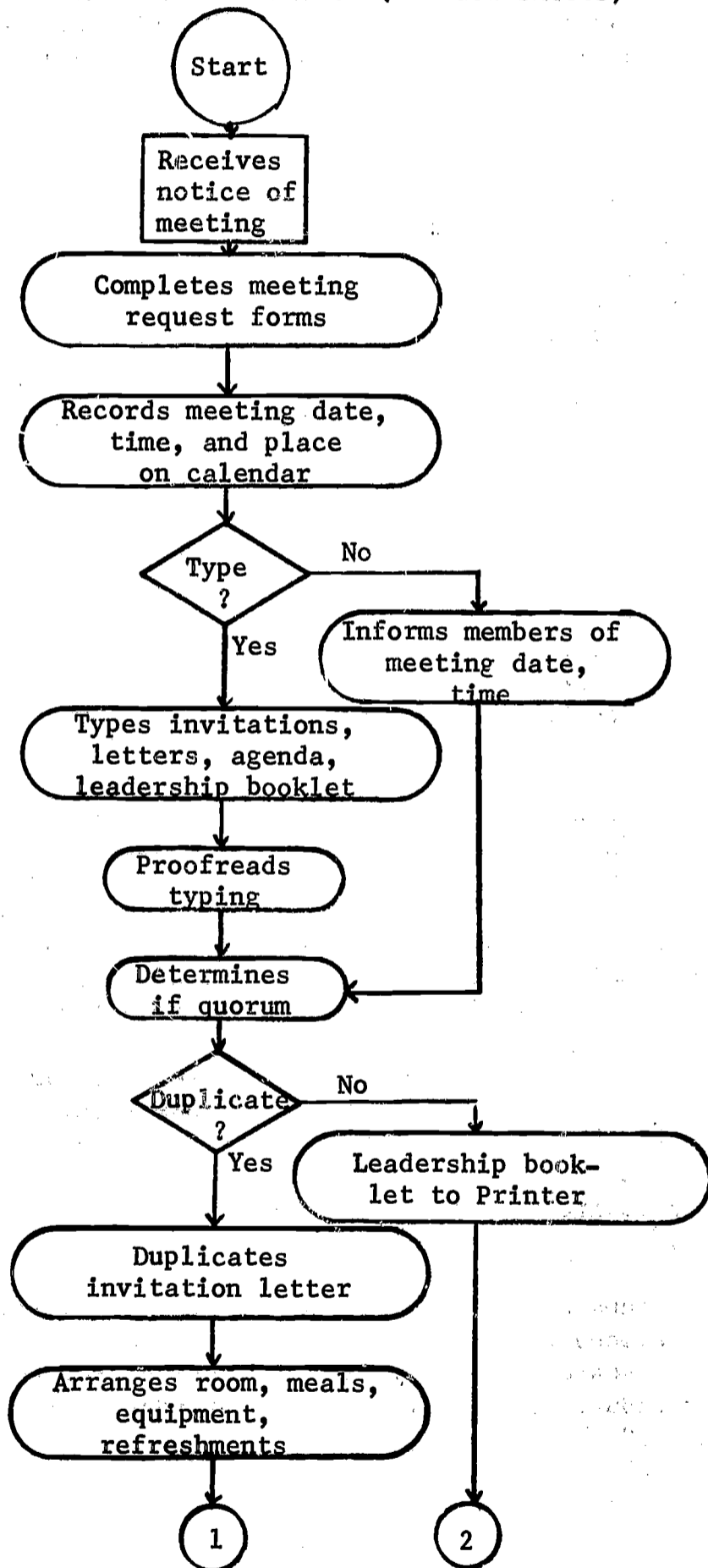
"During September and October there was a tremendous amount of work. There were over 2,500 cards of students being readmitted or re-enrolled in schools. She got all of these cards processed correctly in a reasonable amount of time."

"The worker does an excellent job of working under pressure. We once had a deadline to meet in preparing some curriculum materials for distribution at a teachers' workshop. She was given the rough copy of the guide in several different batches on various sized paper and in various stages of legibility. She designed a beautiful format to type the information and finished it by the deadline."

"In initiating an entirely new attendance procedure, the worker was required to demonstrate the hardware and procedures to many professionals both from within the school and without the school district. She was most effective explaining the equipment and procedures due to her expert knowledge of the equipment and her basic job tasks."

8.4 CLIENT RELATED, CONFERENCES AND MEETINGS

26. GIVEN ORAL OR WRITTEN NOTICE OF MEETING, THE WORKER ARRANGES CONFERENCES AND MEETINGS. (11 task sheets)

HARDWARE

Typewriter  
Files  
Telephone

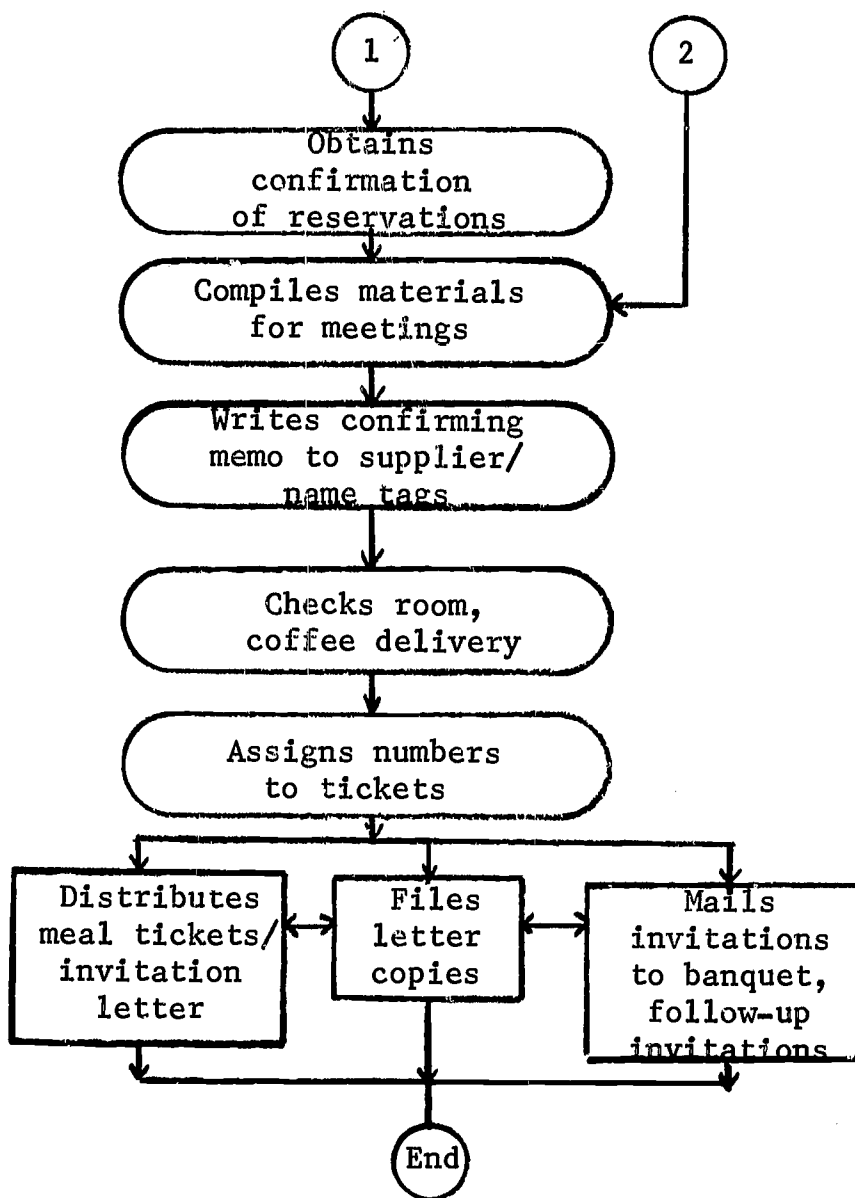
SOFTWARE

Desk calendar  
Leadership booklet  
Name tags  
Tickets  
Invitations

EDUCATIONAL CUES

Typing  
Filing  
Communication skills  
Checking

REPORTED CRITERIA: "All members are notified; High level ability to communicate effectively; Confirmed reservations; Careful about attention to details; Follow through on numerous details; Pressure work"



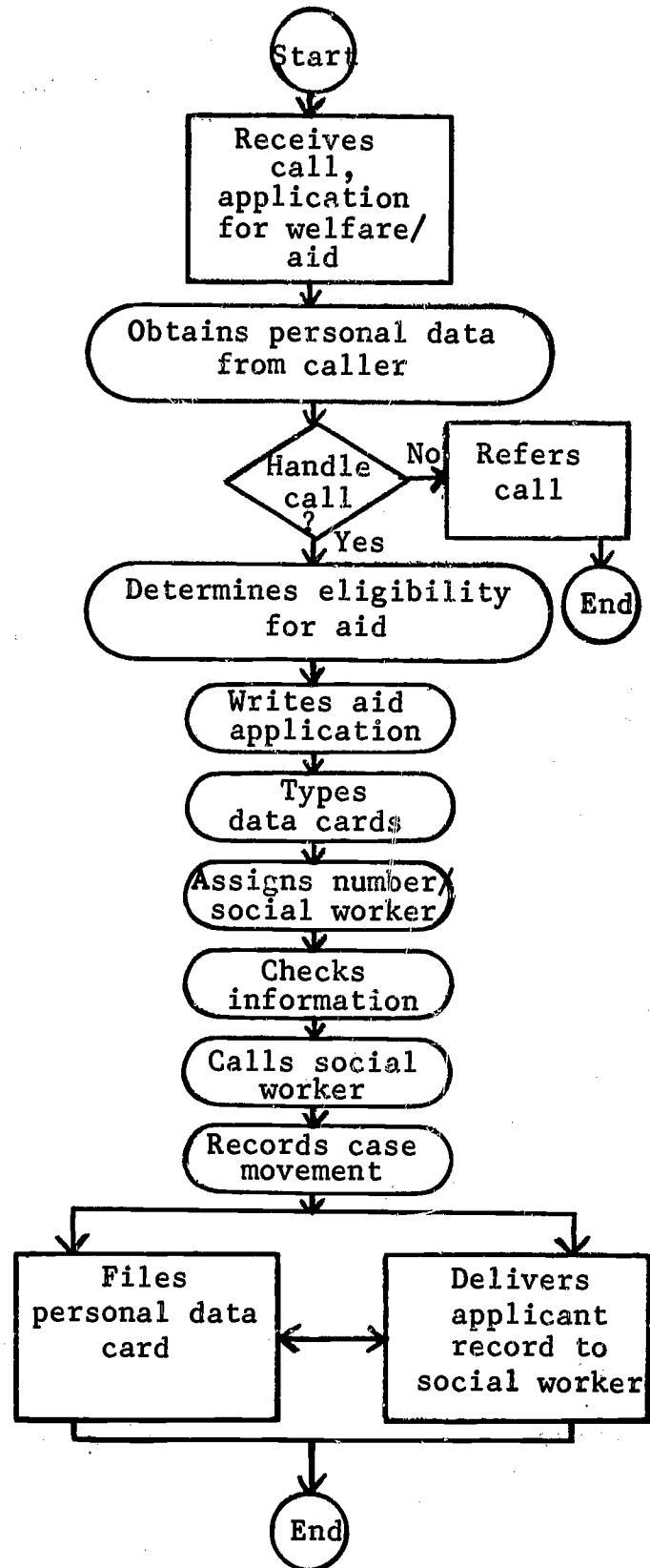
SUPPLEMENTARY STEP: Reschedule meeting if no quorum.

27. GIVEN CONFERENCE PARTICIPANTS, THE WORKER HANDLES REGISTRATION PROCEDURES. (2 task sheets)

Receives participant/completed registration forms/checks  
Obtains participant name  
Checks check for correctness  
Sorts checks, registration forms by conference  
Types registration list for each conference/registration cards  
Delivers name badge/materials to participants  
Directs participants to meeting room  
Files registration card/registration list/forms  
Mails check and receipt copy to conference headquarters

## 8.5 CLIENT RELATED, WELFARE AND AID

28. GIVEN APPLICATIONS OR ORAL REQUESTS, THE WORKER HANDLES APPLICANTS FOR WELFARE AND AID. (5 task sheets)



**REPORTED CRITERIA:** "Must understand how to use appropriations book to locate information; Ability to communicate with people; Some degree of pressure dealing with anxious people"

## ACQUISITION

## RECEIVES

telephone call/callers/request for aid/applications/processed application

## Obtains

warrant number/callers name/person caller wishes to contact/callers needs/personal history form completed by applicant

## PROCESS

## Answers

questions concerning warrant

## Refers

call to qualified person

## DETERMINES

eligibility for aid

## Writes

preliminary application

## TYPES

printed card of personal information/county number on control card

## Assigns

social worker/county number

## CHECKS

financial card for information concerning moves, district location, change of name or address, deceased

## CALLS

social worker

## Requests

presence of social worker

## RECORDS

case movement on control card

## DISPOSITION

## FILES

personal information card

## DELIVERS

preliminary, processed application to social worker/application to opening desk

**SUPPLEMENTARY STEP:** Calls welfare client requesting/giving information



HARDWARE

Telephone  
Typewriter  
Files

SOFTWARE

Warrant  
Financial card  
Personal information  
card

EDUCATIONAL CUES

Communication skills  
Accuracy  
Typing  
Filing  
Social services  
terminology

29. GIVEN BILLS AND RECEIPTS, THE WORKER PROCESSES WELFARE AND AID CLAIMS FOR PAYMENT. (8 task sheets)

## ACQUISITION

## RECEIVES

vendor bills/disbursement sheet/cash-aid receipts/warrant copy/repayment forms

## PROCESS

## Pulls

unpaid bills folder/collection card/money card

## CHECKS

collection card with repayment forms/money card with collection card/case number on bill with client master book for eligibility/whether doctor is a specialist, general practitioner with rate sheet to see if rate is correct/amount of bus tokens requested by each district/type of aid to be charged/cash-aid receipts

## SORTS

cash-aid receipts/repayment forms

## DETERMINES

amount of money client has/client's unmet needs/names of social workers assigned to case/whether to send money to client or hold at county

## Codes

budget documents

## COMPUTES

amount needed from contribution/difference in excess of need to be retained by county/number of bus tokens requested/balance of bus tokens sent daily/totals of cash-aid receipts

## TYPES

claims information on form/request for adjustment

## RECORDS

information on collection card/number bus tokens requested/district number, amount on car fare cash-aid receipts/information from money, collection card

## Posts

bus token balances to ledger/amount of money to collection card

## Attaches

repayment form to collection card

## DISPOSITION

## Sends

collection card, repayment forms to typist/coded budget documents to Teletyping

Places

bills in stack for coding/bus tokens in envelopes

DELIVERS

accounting sheets to Accounting when bus tokens total reaches 20,000/cash-aid claims to Data Processing/budget document copies to Main Accounting/repayment forms to typist/request for adjustment to social worker/car fare cash-aid receipts to co-worker

FILES

cash-aid claims/collection cards/money cards

SUPPLEMENTARY STEP: Duplicates coded budget document

HARDWARE

Adding machine  
Typewriter  
Files

SOFTWARE

Welfare/aid documents

EDUCATIONAL CUES

Computational skills  
Typing  
Filing  
Coding skills  
Social services terminology

REPORTED CRITERIA: "Not to assume doctors bill is correct and ask questions on each bill received; Must be sure computations are correct; Bookkeeping ability; Ability to keep sets of records; Understand coding; Knowledge of types of aid"

WELFARE AND AID CRITICAL INCIDENTS

"The worker received a claim last week with a question of allowability. She searched carefully through various channels until she came up with the correct answer and the proper code to fill out her form. She is extremely patient and will painstakingly check into all details the first time without having someone else tell her to do so."

"This worker does not like changes in routine. When the order came in to change the form of sending claims; namely, to send them in duplicate, she managed to forget and this created many problems and delays."

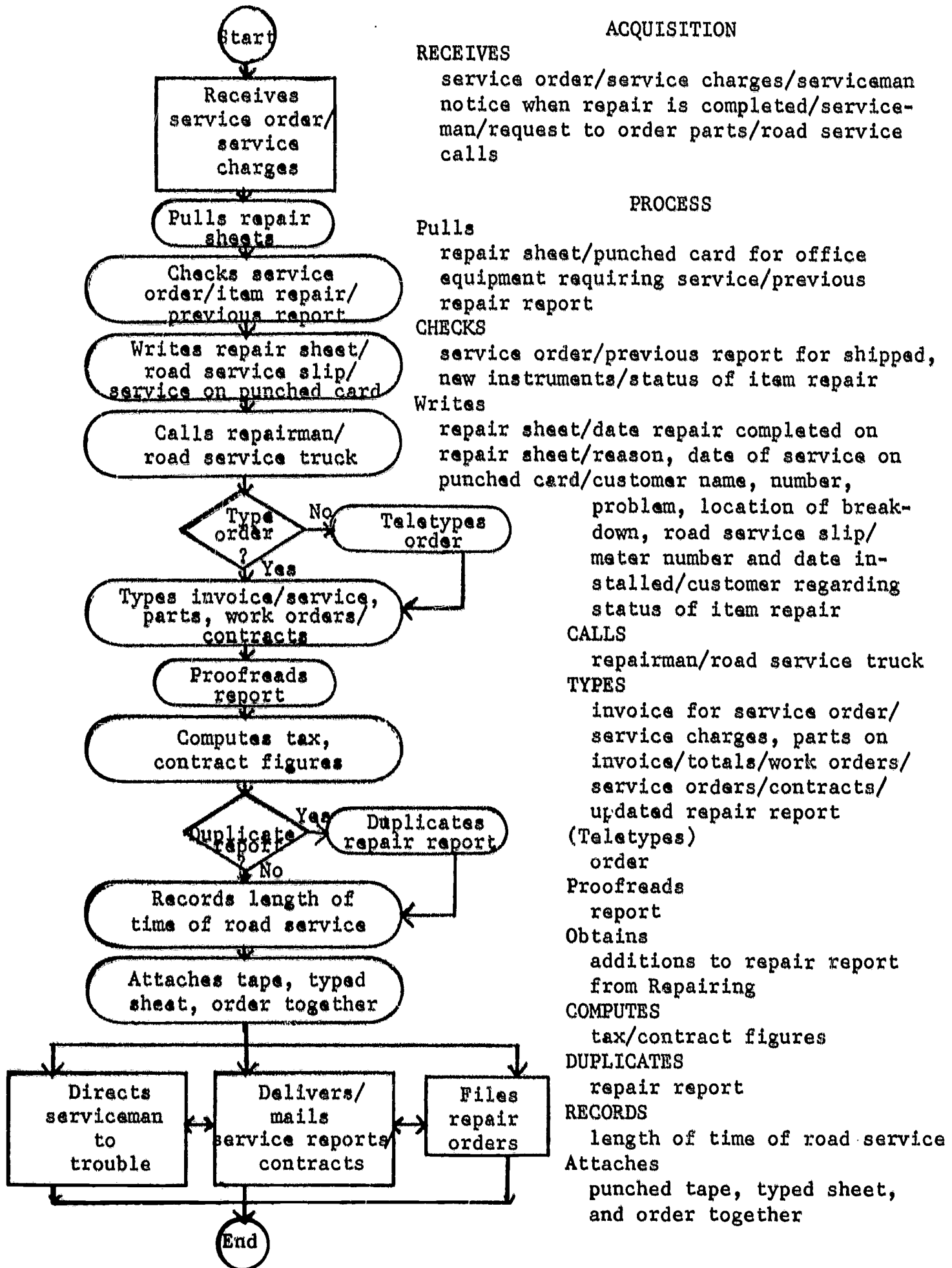
"The worker sent applicants for welfare to the wrong district because she read the maps incorrectly. The borders are subject to frequent change, but she does not make the changes when they cross her desk."

"One client demanded immediate attention. The worker very calmly seated him and proceeded with the task of processing the case. She spoke quietly and slowly and completely gained the confidence of the client."

"The county had lost Federal money, and it was very important to the people concerned that all the facts be related in the report the worker was preparing. She did not miss a detail; and in addition, she supported questionable figures with the facts that made them appear questionable when in reality they were quite realistic."

8.6 CLIENT RELATED, REPAIR SERVICE

30. GIVEN SERVICE ORDERS AND CHARGES, THE WORKER TYPES CONTRACTS, SERVICE ORDERS, AND REPAIR REPORTS. (13 task sheets)



## DISPOSITION

## Directs

service man to department requesting service

## DELIVERS

repair report copies/service order invoice copy to serviceman/tape, sheet, and order to supervisor/contract to salesman

## MAILS

copy of invoice as customer bill to customer/status of repair to customer

## FILES

repair sheet/road service slip/service orders

## Places

copy of repair report in repair book by date

HARDWARE

Typewriter  
Teletype  
Files  
Calculator  
Duplicator

SOFTWARE

Invoice  
Repair sheet  
Service orders  
Punched cards and tapes

EDUCATIONAL CUES

Typing  
Computational skills  
Accuracy  
Filing  
Communication skills

REPORTED CRITERIA: "Prompt repair; Accurate record of repairs; Same day's service; Necessary to record exact location of breakdown; Ability to type on lines is helpful"

8.7 CLIENT RELATED, LIBRARY

31. GIVEN SETS OF CARDS, THE WORKER TYPES INDEX CARDS FOR LIBRARY OF CONGRESS BOOKS. (1 task sheet)

Receives sets of cards

Types sets of cards identifying proper file, authority, shelf list, author, title, subject/card, pocket for book

Adds subjects to cards

Pastes pocket in book

Inserts book card in pocket

Shelves books

Calls user if new item was requested

Files cards in card catalog under subject, title, author

Sends new books to librarian for spining (white ink numbers on spine of book)

32. GIVEN CALL SLIPS TO LOCATE BOOKS, THE WORKER OBTAINS REQUESTED BOOKS. (2 task sheets)

Receives call slips

Checks if call slips are properly completed, initialed

Sorts call slips by tier

Determines route through tiers for obtaining a number of books

Locates books

Pulls books from shelves

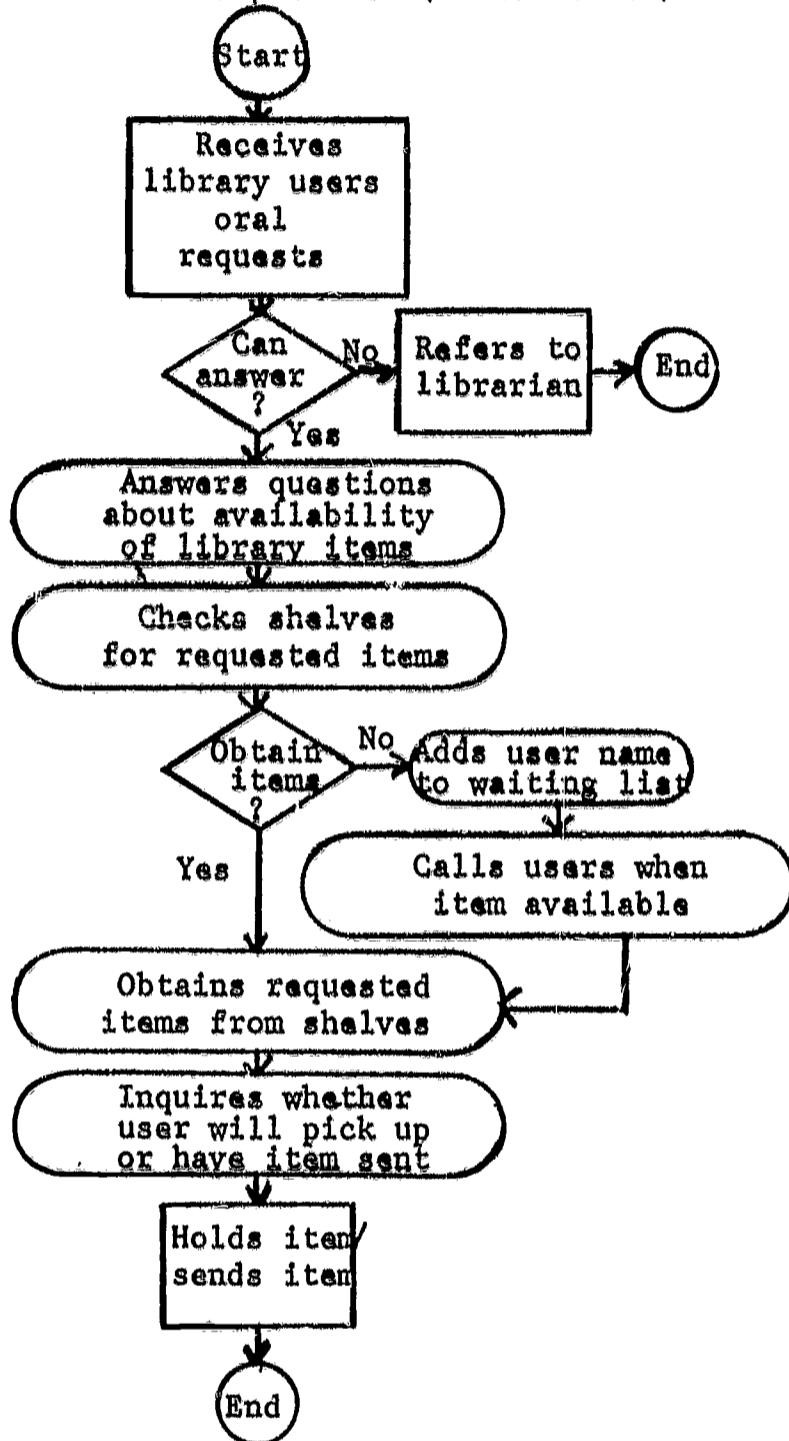
Places books on hand truck

Arranges books in Dewey Decimal order

Delivers books to librarian's desk



33. GIVEN LIBRARY USERS' ORAL REQUESTS, THE WORKER ASSISTS USERS IN OBTAINING MATERIALS/BOOKS. (1 task sheet)



Note: Hardware, Software and Educational Cues listed below refer to Performance Goals 2 and 3.

HARDWARE

Hand truck  
Telephone  
Shelves

SOFTWARE

Call slips  
Books  
Library items  
Waiting list  
Card catalog

EDUCATIONAL CUES

Dewey Decimal System organization of library, call number system  
Communication skills

REPORTED CRITERIA: "Careful checking of shelves for important materials"

34. GIVEN INTER-LIBRARY LOAN REQUEST, THE WORKER WRITES LETTERS REQUESTING LOAN ITEMS. (1 task sheet)

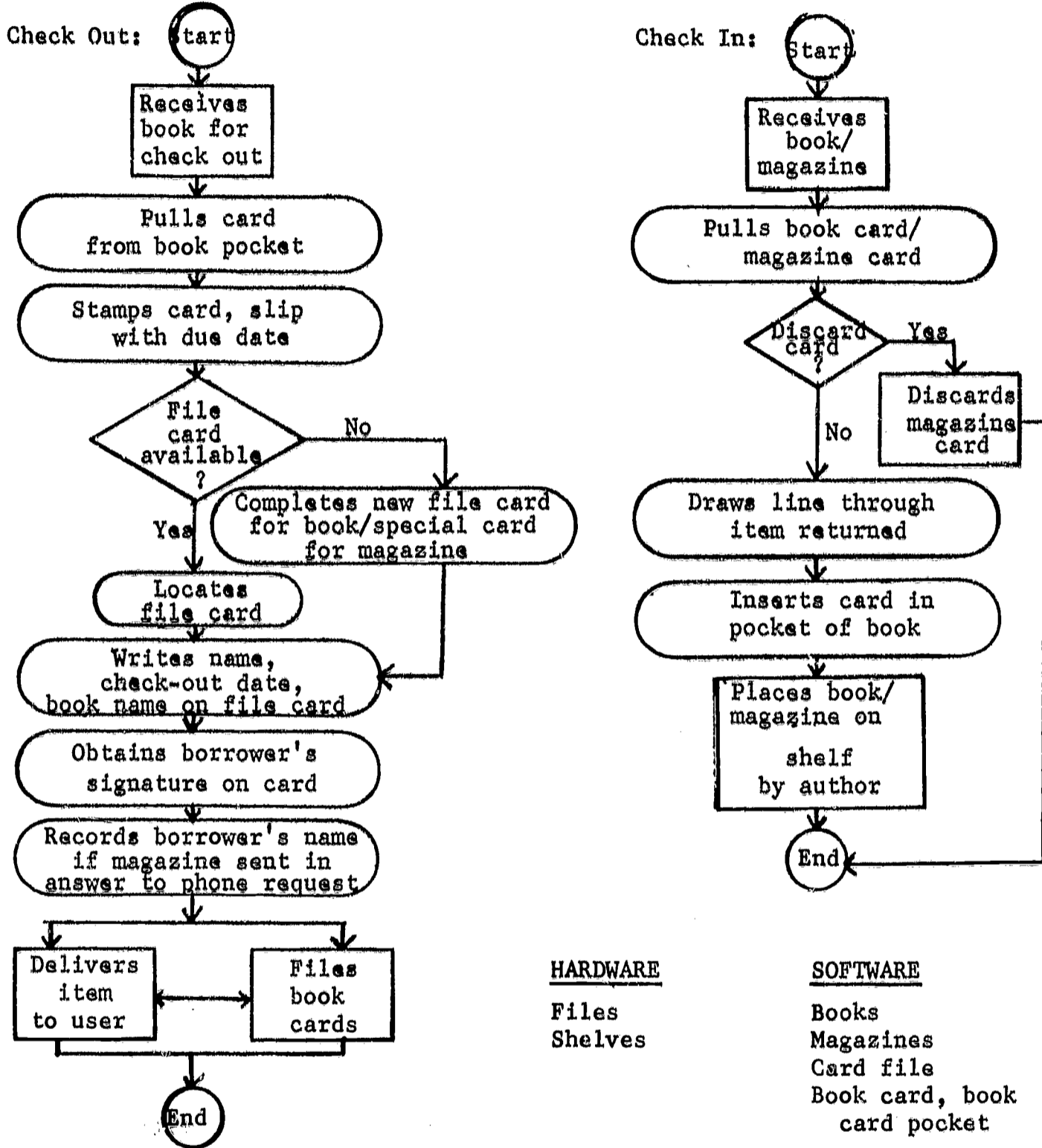
Receives inter-library loan request

Types form/composed letter

Obtains librarian's signature

Mails letter to person requesting loan

35. GIVEN BOOKS FOR CHECK OUT/CHECK IN, THE WORKER PERFORMS TASKS REQUIRED TO CHECK OUT/IN ITEMS FOR THE LIBRARY. (3 task sheets)



HARDWARE

Files  
Shelves

SOFTWARE

Books  
Magazines  
Card file  
Book card, book card pocket

EDUCATIONAL CUES

Filing  
Library procedures/terminology

REPORTED CRITERIA: "Shelves are kept neat; Daily 20-50 books checked out"

8.8 CLIENT RELATED, INSURANCE

36. GIVEN POLICIES, APPLICATIONS, AND CONTRACTS, THE WORKER TYPES BINDERS, POLICIES, RENEWALS, CHANGES, AND TRANSFERS FOR INSURANCE. (48 task sheets)

## ACQUISITION

## RECEIVES

policy illustrations form/request from agent for policy program/request for binder/policy/renewal cards/work sheets/copies of applications/copy of contracts/request for change/transfer of policy/mailling kit of insurance materials/dictated belt/rough draft of policy/quote request/payment cards/change orders/cancellation notice from customer

## PROCESS

## Pulls

insured's folder/pending folders for applicant/contracts/expiration cards/coupon/check accounting card

## SORTS

policies/expiration cards

## CHECKS

policy/appraisal of item to be insured for adequate description/policy work sheet for completeness/instructions/coding, classifications on policy/state, city codes for fire departments/completed policies for details/expiration cards/if loans due on transfers policy

## Assigns

policy number, chart number to application

## DETERMINES

premium/new amount of insurance/type of endorsements necessary/necessary changes/included protection/district policy should be in on transfer/agent transfer is assigned to

## Collects

data on annual dividend, cash value, increase by year of cash value, premium, cost price per year, gain/money from customer

## COMPILES

customer file

## Stamps

policy forms/transfers with branch clearing house stamp

## COMPUTES

premium, totals/insurance costs/premium change

## Adjusts

payment schedule

## Writes

paid receipt/loan change order/application for policy/premium on work sheet/code number on application for medical center/endorsement form with changes

## TYPES

illustration, agents form/policy program/synopsis of benefits form/insurance binder form/dictated policy information/corrected policy/policy form/invoice/name, address on endorsement/policy endorsement form/statement of new payment schedule/fluid process master of endorsements/contract/beneficiary change/information card/form letter/reinstatement form letters

## Obtains

approval of typed policy, signature on policy

## Proofreads

policies

**Arranges**

illustration form, cover letter, agents form and explanation sheets in binder

**Attaches**

work sheet and policy

**RECORDS**

accumulated data on work sheet/customer name by next number in binder book/policy and chart numbers/policy changes/premium increase or decrease on ledger sheets

**DISPOSITION****FILES**

binder copy/old and new policies/customer file/invoice copy/endorsements/renewal cards/ work sheet/contracts/kit/reinstatement form letters/copy of ledger sheet

**(Destroys)**

all materials over five years old

**DELIVERS**

synopsis forms to agent for customer/binder and receipt to customer/policy to supervisor/policy to reviewer in Data Processing/policy original, copy to underwriter/endorsements/information card to agent

**Sends**

program to agent/policy to Rating/loan change order to supervisor, Accounting/change to Addressing/copy of ledger sheet to home office

**MAILS**

copy of program to home office/binder copies to main company/policies, payment card to customer/policy, invoice to customer/endorsements, pay schedule to home office/contract to home office/transfer policy/kit letters one at a time until gone/reinstatement form letter

**HARDWARE**

Typewriter  
Calculating machine  
Dictating machine  
Files

**SOFTWARE**

Rate manuals, charts  
Binder book  
Dictation belt  
Insurance policy forms  
Insurance payment cards  
Insurance policy endorsement forms  
Renewal cards  
Ledger sheets

**EDUCATIONAL CUES**

Computational skills  
Typing, statistical  
Neatness  
Filing  
Checking  
Coding  
Accuracy  
Insurance terminology

**REPORTED CRITERIA:** "Knowledge and understanding of insurance plans/attention to detail in calculations; Speedy and accurate typing; Use rate books; Completely accurate transcript expected/perfect copy; Speed and accuracy with no erasures permitted; Careful attention; Knowledge of insurance terms"

**37. GIVEN CLAIMS OR ORAL INQUIRY, THE WORKER PROCESSES INSURANCE CLAIMS.**  
(20 task sheets)



## ACQUISITION

## RECEIVES

telephone call about accident/claim cards/claim correspondence/approved  
hospital list/claims jacket/check certification requests

## PROCESS

## Pulls

beneficiary's folder

## SORTS

claims alphabetically

## (Evaluates)

claims

## Locates

claim card by color code/files

## CHECKS

billing of claims/contract/treatment date/doctor's sheet/information  
received/forms completed/signature on claim cards/logs for following day's  
schedule/claim/correspondence/approved hospital list/benefits

## COMPUTES

maximum benefits payable under group contract/amount of claim

## DETERMINES

follow-up for claims/benefits not payable/if claimant is covered/to whom  
check will be sent

## Writes

new claim information on accident or loss form/check order form

## TYPES

claims processing form and coding

## (Refuses)

claims

## DISPOSITION

## Places

check certification requests in claims jacket

## FILES

accident/loss form/claims processing form/claims in pending file/claims  
jacket

## DELIVERS

folder to supervisor/claim cards to interviewer/statement of claims and  
hospital form to claimant/instructions to typist to type refusal letter/  
claim/claimant form to manager

## MAILS

check for claim

SUPPLEMENTARY STEPS: Color codes claim jacket; Date stamps mail

HARDWARE

Telephone  
Files  
Typewriter

SOFTWARE

Accident or loss form  
Claim cards  
Check order forms  
Claims forms  
Checks

EDUCATIONAL CUES

Communication skills  
Filing, alphabetically  
Accuracy  
Checking  
Typing  
Computational skills  
Insurance terminology

REPORTED CRITERIA: "Good command of color coding; Read and interpret logs; Accuracy important; Excellent reading ability with legal documents; Some general knowledge of insurance"

38. GIVEN CLAIMS FORMS, THE WORKER DUPLICATES CLAIM STICKERS FOR INSURANCE POLICY HOLDERS. (1 task sheet)

Receives claims forms  
Stamps date on claims  
Sorts claims alphabetically  
Pulls claimant's data card, claim card  
Duplicates claim sticker using photocopy machine  
Writes claimant's name, number, and date on new claim card  
Files claim card, data card  
Clips new claim card, claim sticker to form received  
Sorts claims into three groups  
Distributes claims to other workers  
Files claims

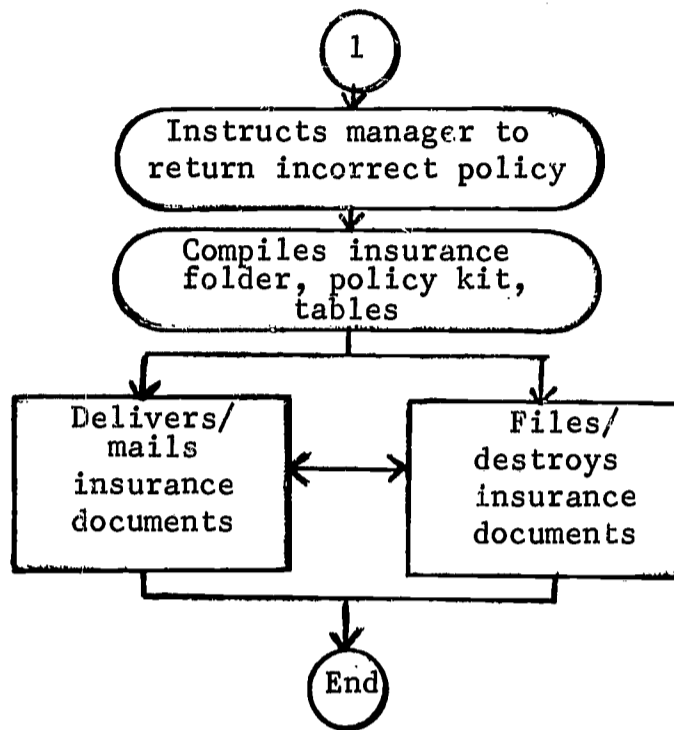
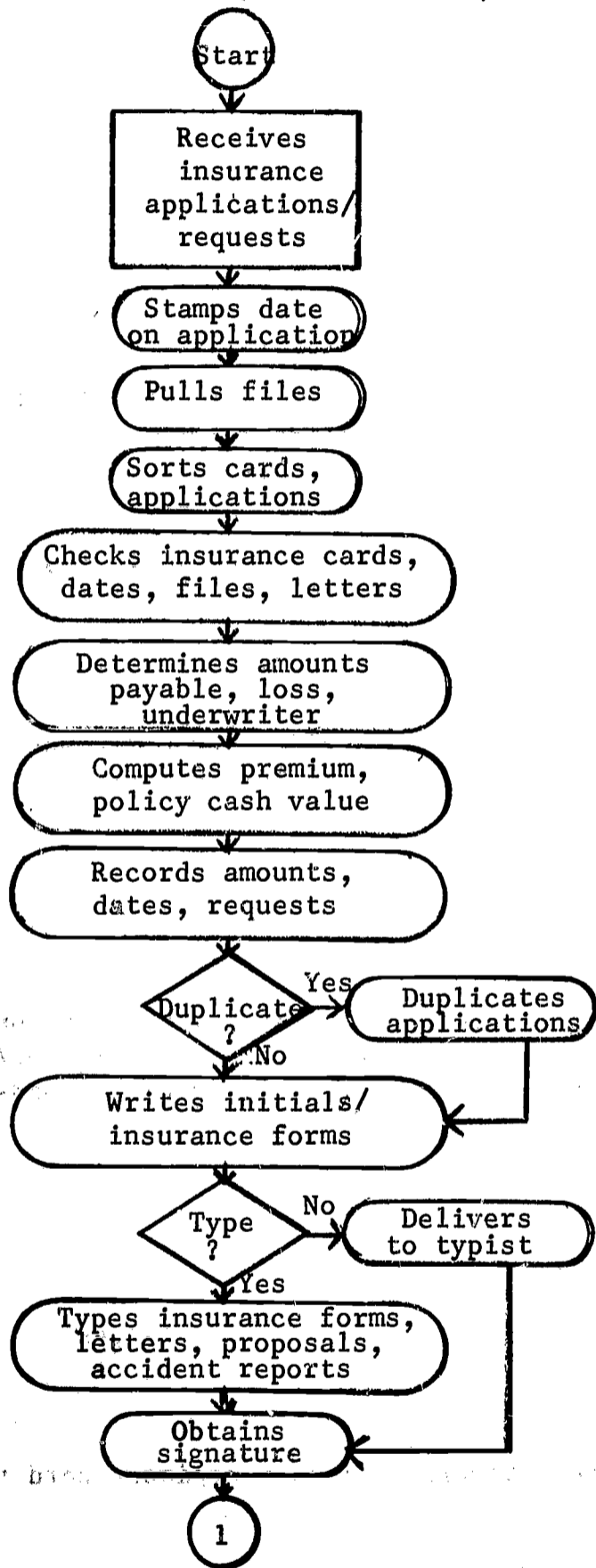
39. GIVEN A REQUEST FOR MEMBERSHIP, THE WORKER DISTRIBUTES AND PROCESSES AUTO CLUB MEMBERSHIP APPLICATIONS. (1 task sheet)

Receives request for membership application  
Delivers applications  
Assigns next membership number  
Types membership card and insurance card  
Issues new member bumper sticker, reward sticker, general information booklet on services available, welcome letter from club to new member  
Receives check for membership dues  
Files membership application numerically, by last name

40. GIVEN UNDERWRITER INFORMATION, THE WORKER PREPARES DAILY, WEEKLY, MONTHLY REPORT OF NEW BUSINESS ACTIVITY. (2 task sheets)

Counts applications  
Obtains computer printout  
Checks deletions, declinations, and corrections  
Sends copies of deletions to Order Accounting  
Codes information for Key punching  
Obtains material for report from Order Accounting  
Collects reports daily  
Computes percentages  
Writes report  
Checks totals against another's figures  
Delivers to secretary to type  
Delivers to supervisor for approval

41. GIVEN INSURANCE LEDGER CARDS, APPLICATIONS/REQUESTS FOR POLICY, THE WORKER CHECKS, COMPUTES, FILES RECORDS AND ANSWERS ENQUIRIES REGARDING INSURANCE. (41 task sheets)



HARDWARE

Files  
Typewriter  
Dictating machine

EDUCATIONAL CUES

Filing  
Typing  
Checking  
Computational skills  
Color coding  
Insurance terminology

SOFTWARE

Insurance:  
Ledger cards  
Record book  
Suspense voucher  
Follow-up slip  
Application  
Record cards  
Status cards  
Rate book  
Dictating belt  
Index card

REPORTED CRITERIA: "Know where every application is; Clear desk by end of day; Compose mailable letter at typewriter; Familiar with company policy; Insurance terminology; Alertness and attention to detail; Good at second guessing people"

## ACQUISITION

## RECEIVES

ledger card/health plan application/record cards/policyholder's file/  
 applications/requests for policy/status cards/inquiry/correspondence/  
 dictated letter/copy of claims

## PROCESS

## Stamps

date on application/letter indicating answered

## Pulls

agent's file/requested materials on instruction

## SORTS

ledger cards/applications/correspondence/record cards

## CHECKS

ledger cards for remaining balance/registration file for previous, present  
 membership health plan/status, code/ letter for requested information/  
 termination date/manuals for answers/applications for completeness/for  
 rejects

## DETERMINES

amount that should be paid/underwriter/number of years, type of policy/  
 number for policy/amount of loss

## COMPUTES

premiums/cash value of policy

## RECORDS

applicant data in book/amount that should have been paid on suspense voucher/  
 amount to be refunded/request for information/policy number/account name  
 and loss figures on index cards

## DUPLICATES

applications

## Writes

initials on suspense voucher/follow-up slip/file cards on applicant

## TYPES

receipt of application letter/check requisition/letter requesting additional  
 payment/brief (composed) reply to request/proposals/standard cover letter/  
 accident reports/form letter on non-renewal of policy/dictated correspond-  
 ence/ID card/composed letter to inquirer

## Obtains

signature on letter/back of application

## Instructs

district manager to return incorrect policy

## COMPILES

folders/binder, policy explanation, proposal form, policy file/tables

## DISPOSITION

## DELIVERS

file to supervisor/status cards to agent/answers to inquiries/index card to  
 writer

## MAILS

letter to applicatn/reply/accident report/non-renewal letters/ID cards

## FILES

ledger cards/copy of suspense voucher/record card/letters/application/new  
 status card in folder/status cards



**Sends**

copy of application to Filing, Medical Section/suspense vouchers to Cashier/  
application to underwriter

(Destroys)

old status card

**INSURANCE CRITICAL INCIDENT**

"When asked by a new policy holder on which date the policy became effective, the worker replied ninety days instead of three months. The policy holder ran up a sizeable bill in the two days between the two intervals, and the company had to stand behind the answer the worker gave and were forced to pay."

**8.9 CLIENT RELATED, OTHER FINANCIAL INSTITUTIONS**

42. GIVEN MEMBERSHIP/LOAN APPLICATIONS, THE WORKER SERVES THE CUSTOMER IN A FINANCIAL INSTITUTION SUCH AS A CREDIT UNION. (11 task sheets)

**ACQUISITION****RECEIVES**

completed membership card and 25 cent fee/contract and original application form/request for loan/home loan application/approval of loan payment from manager/check from cashier for customer loan

**PROCESS****Writes**

account number on membership card/numbers on loan case and related papers

**CHECKS**

home loan application/added loan application/savings amount balance

**COMPUTES**

old and new loan principal/total principal and interest/number of months desired for repayment

**DUPLICATES**

home loan application

**Pulls**

share and loan ledger card

**TYPES**

loan contract/application/final loan documents/savings withdrawal check

**Requests**

client call or return in two hours/appraisal on home

**Verifies**

employment/credit

**Obtains**

signature on check

**RECORDS**

membership fee and name in journal on share and loan ledger sheet/old loan balance on new loan application

**Posts**

membership fee and member name in ledger

**INFORMS**

client of amount he can borrow on signature only

## DISPOSITION

## MAILS

loan papers to buyer for signature

## FILES

loan application/copy of check

## DELIVERS

membership cards, membership fee to membership chairman/copy of loan contract to customer, to insurance company carrying mortgage/completed application form to manager/added loan application to credit committee/house loan application form to FHA or VA/credit application to Cashier/loan or savings check to customer

REPORTED CRITERIA: "Fees are properly posted; Complete accuracy"

HARDWARE

Typewriter  
Files

SOFTWARE

Membership card  
Cash  
Share/loan ledger card  
Contract  
Application form  
Interest chart

EDUCATIONAL CUES

Typing  
Accuracy  
Computational skills  
Filing  
Checking

43. GIVEN CUSTOMER ACCOUNTS, THE WORKER SOLICITS FROM RETAIL FIRMS PERMISSION TO GRANT 30-DAY CREDIT ACCOUNTS TO POTENTIAL CUSTOMERS. (1 task sheet)

OTHER FINANCIAL INSTITUTIONS CRITICAL INCIDENTS

"Day before yesterday the worker was sent out to repossess an auto. He recovered the auto from the gentlemen who asked him what he would do if he did not give up the car. Being a very knowledgeable person, the worker correctly replied that he would have to get the sheriff to repossess the car. Consequently, the man willingly gave the worker the car."

"She paid out \$1,500 in funds on a forgery. If she had asked the customer to sign his name once again, in front of her, on the slip, the forgerer might have become nervous."

"In checking credit rating for a customer who was requesting a loan, the clearinghouse said the rating was "probable" (not enough information). The worker realized this meant that information on the client was not sufficient. If this lack of information had gone by her, the client may have been turned down for the loan or given a loan on the basis of insufficient information."

"She gathered loan information that meant the difference in the person qualifying for the FHA loan. She wants to be sure that the package is more than complete and that it makes a good case for the person seeking the loan."

8.10 CLIENT RELATED, MISCELLANEOUS SERVICES

44. GIVEN ORAL REQUESTS, THE WORKER HANDLES MISCELLANEOUS OVER-THE-COUNTER OR TELEPHONE INQUIRIES. (8 task sheets)

## ACQUISITION

## RECEIVES

telephone call/visitor's inquiry regarding Civil Service jobs/public utility customer/alien registration card, passport, last year's tax return/tax inquiry/money for license/request to rent a car

## PROCESS

## Writes

name of caller, telephone number/letter to obtain information/forms to turn on, off electrical service/tax clearance forms/contract information for car rental

## CHECKS

name, district/reference material regarding disease-prevention and cure societies/files for job descriptions/records to answer billing questions/tax return for irregularities/tax law, regulations for Federal tax service/price of requested license (liquor, alcohol, or solicitors permits)

## Obtains

completed license application/rental contract/customer signature on contract

## Explains

about memorial contributions/if person eligible for Civil Service employment/alien should file amended return and pay balance immediately

## TYPES

license/memo listing all licenses issued

## RECORDS

name on memorial/license issue and pertinent data

## COMPUTES

license fees received

## Stamps

seal of agency on stub of tax form

## INFORMS

taxpayer of findings, method to solve problems/car rental agency to bring car for customer

## CALLS

party to give information located

## DISPOSITION

## Sends

memorial contribution information to proper district/job description for Civil Service to applicant

## DELIVERS

job description to visitor/passport to alien/license to applicant/copy of memo of issued licenses to Cashier

## FILES

copy of memo on license totals

**REPORTED CRITERIA:** "Diplomacy in dealing with public; Tact in handling customers, securing information; Accurate information, customer signature on contracts"

HARDWARE

Telephone  
Files  
Typewriter

SOFTWARE

Licenses  
Memorial cards  
Rental contracts  
Tax booklets  
Services manuals

EDUCATIONAL CUES

Communication skills  
Filing  
Typing  
Computational skills  
Checking

45. GIVEN TRAFFIC TICKETS, ACTIVITY REPORTS, AND PRESS CLIPPINGS, THE WORKER CHECKS AND RECORDS MISCELLANEOUS ITEMS. (10 task sheets)

## ACQUISITION

## RECEIVES

traffic ticket/cashiers daily activity reports/tax cases/press clippings/  
investigation reports to determine tax delinquency/inmates drafts

## PROCESS

## Pulls

driver's record

## SORTS

activity reports by type of action/by area/alphabetically/reports by region/  
press clippings/traffic tickets

## CHECKS

information on report with attached documents/legal documents for complete-  
ness, signature of notary public/taxpayer information

## COMPILES

monthly press clipping report

## Writes

price of policy on report cover sheet/statistical information on coded cards

## TYPES

name tag for each report recipient/violation or payment notation on driver's  
record card

## DUPLICATES

legal documents

## (Assembles)

summary report

## Inserts

name tag in summary report

## Stamps

inmate's number on draft

## DISPOSITION

## Distributes

documents to work areas/copies of inmate drafts to hospital, service units

## DELIVERS

reports with name tags to Mailing/report to supervisor/tax case, coded card/  
paid traffic tickets to vault

## FILES

activity reports/driver's record

## Sends

tax reports to branch chief/press clippings to district offices/folder to  
tax examiner for approval



## MAILS

press clippings report to division headquarters

HARDWARE

Files  
Photocopy machine  
Hand stamp  
Typewriter

SOFTWARE

Traffic tickets  
Activity reports  
Tax cases  
Press clippings  
Legal documents  
Coded cards  
Name tags

EDUCATIONAL CUES

Coding  
Filing  
Accuracy  
Checking  
Typing

REPORTED CRITERIA:

"Time pressures; Constant checking"

46. GIVEN A REQUEST FOR TICKETS, THE WORKER HANDLES THE TICKET SALES. (2 task sheets)

Receives request for tickets

Checks if performance accommodations are available

Answers questions regarding price and event

Writes information on special form/customer name, address, order/"paid" on receipt

Stamps completed forms

Receives money for tickets

Delivers receipt, tickets to customer

Places money in cash box

Records amounts received

47. GIVEN ADDITIONS OR DELETIONS, THE WORKER PREPARES COPY FOR PRINTING THE CITY TELEPHONE DIRECTORY. (1 task sheet)

Receives yearly data of city telephone directory

Obtains addition/deletion listings

Draws red line through deleted listing

Sorts addition/deletion listings alphabetically by directory headings for yellow pages

Stamps date, initials on directory page

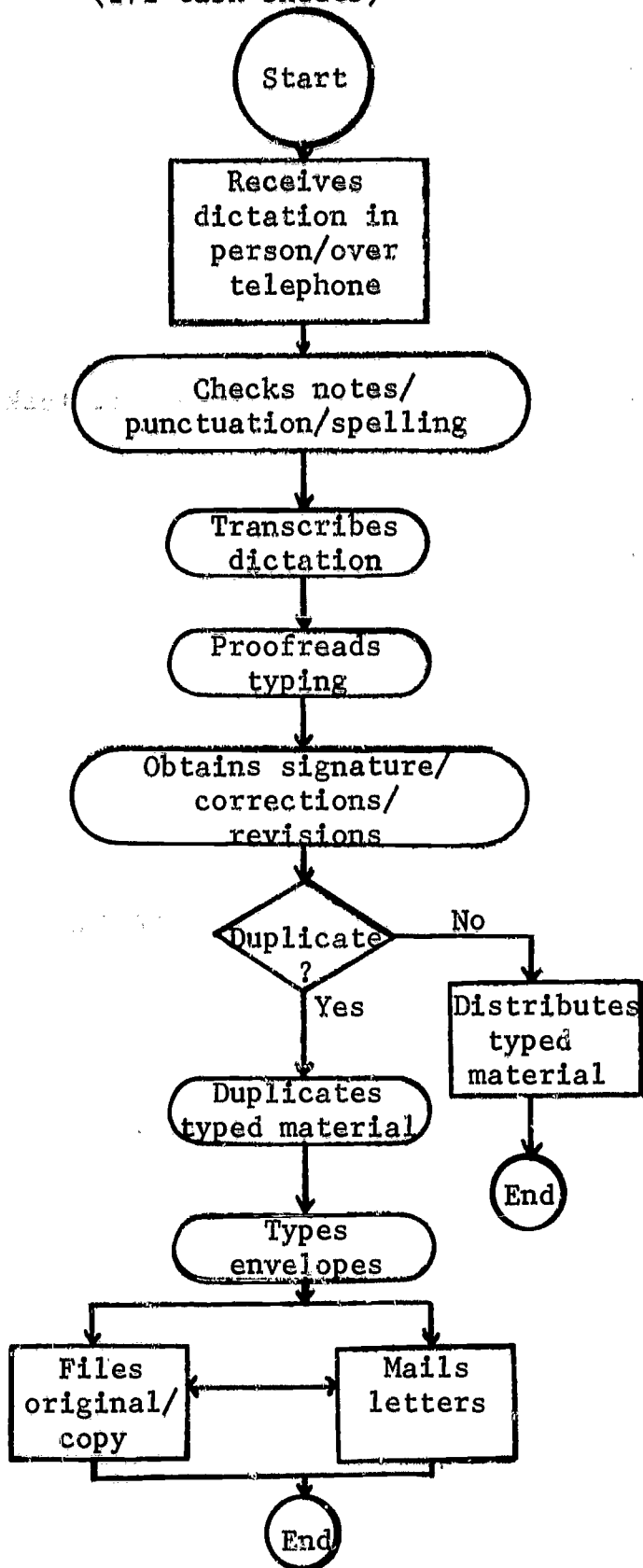
Files additions, deletions

Types additions on file cards

Files cards

9.1 ORAL AND WRITTEN COMMUNICATION, TYPING

1. GIVEN DICTATION, THE WORKER TRANSCRIBES COMMUNICATION INTO MAILABLE COPY.  
(172 task sheets)

HARDWARE

Typewriter  
Duplicator

SOFTWARE

Note pad  
Dictionary  
Transcribed materials:  
Letters  
Manuscripts  
Charts (from standard format)  
Contracts  
Reports  
Minutes of meetings  
Memos  
Legal documents  
Envelopes

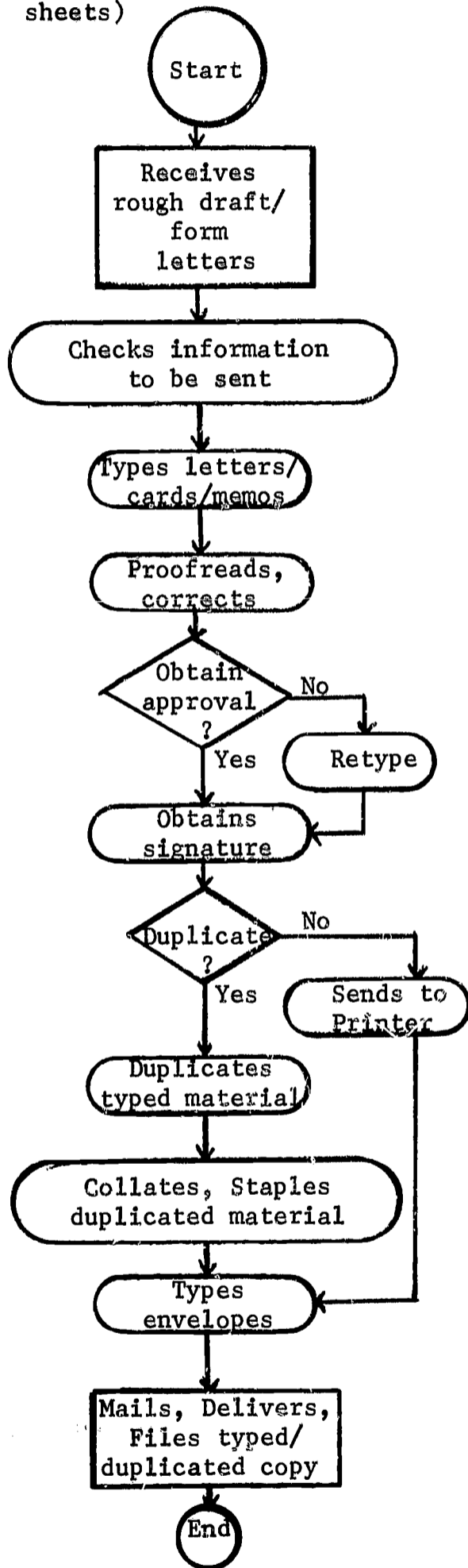
EDUCATIONAL CUES

Typing  
Shorthand  
Accuracy  
Proofreading  
Checking  
Filing  
Transcription

REPORTED CRITERIA: "Good English background; Letter format; A mailable letter that will make a good impression; No erasures permitted on letters going outside company; Worker must type letter perfectly; Some legal terms; Work under pressure; Perfect spelling, punctuation; A high degree of integrity is expected because this work is highly confidential; Great accuracy necessary --no erasing permitted; If letter is signed, it is considered mailable"

SUPPLEMENTARY STEPS: Attaches routing slip for some internal reports; Locates addresses in file; Maintains card index of addresses, subject matter, data sent; Punches holes with paper punch; Collates papers; Writes signature of dictator on letter.

2. GIVEN DOCUMENTS SUCH AS FORM AND ROUGH DRAFT LETTERS, THE WORKER TYPES CORRESPONDENCE, MEMOS, AND OTHER ITEMS REQUIRED BY EMPLOYER. (226 task sheets)



CORRESPONDENCE AND MEMOS (130 task sheets)

RECEIVES

rough draft of letters/memos

SUPPLEMENTARY STEP: Hand stamp "restricted data."

OTHER ITEMS REQUIRED BY EMPLOYER (96 task sheets)

FORM LETTERS (15 task sheets)

RECEIVES

customer files/application forms/names of applicants

FORMS (32 task sheets)

RECEIVES

debit, credit forms/multilith form/field change order [for computer manufacturers]/ job procedures/appropriations/job bid forms/security log form/claims forms/ data card forms/telegram forms/service forms

SUPPLEMENTARY STEPS: Types certificates; Designs forms; Posts job openings.

CARDS (11 task sheets)

RECEIVES

new records, albums to catalog/special order sheet/list of names

TYPES

bibliography card, artist name, album title with number/special order information/names, addresses of prospective clients/ID card/admission cards/ name, address, account number, balance of account/status cards

SUPPLEMENTARY STEPS: Checks off items posted; Assigns numbers to some items.

MISCELLANEOUS DOCUMENTS (38 task sheets)

RECEIVES

legal documents/meeting minutes/manuscripts/abstract/contracts/programs/log sheet for announcers/catalog sheets/bus schedules, changes/weekly master calendar of trials/work schedules, list of

REPORTED CRITERIA: "Typing 70 wpm; Knowledge of word division; Typing on lines; Accurate record of meetings; Ability to produce flawless work; Technical terminology; Work under pressure; Good sense about readability of material and good judgment in set up; Able to withstand monotony!"

RECEIVES (CONTINUED)

names/news releases/invitations/sermons/bulletins/proposals/resolutions for city council/meeting papers/badges for convention attendees

SUPPLEMENTARY STEPS: Types commercial tape number on log sheet; Calls witnesses to appear on trial; Types badges and inserts in plastic frame.

(Except for the above listed differences the number 2 flowchart may be followed for all other steps.)

3. GIVEN ADDRESSES, THE WORKER TYPES ADDRESSES ON LABELS AND ENVELOPES.  
(8 task sheets)

Receives addresses  
Checks spelling  
Types addresses  
Checks addresses for accuracy  
Affixes label to envelopes  
Inserts materials  
Records sending of materials  
Sorts envelopes by zip code  
Batches envelopes  
Mails/Delivers envelopes

REPORTED CRITERIA: "Time pressures; Work to be completed immediately; Speed not important; Double space three-line address and single space four-line address"

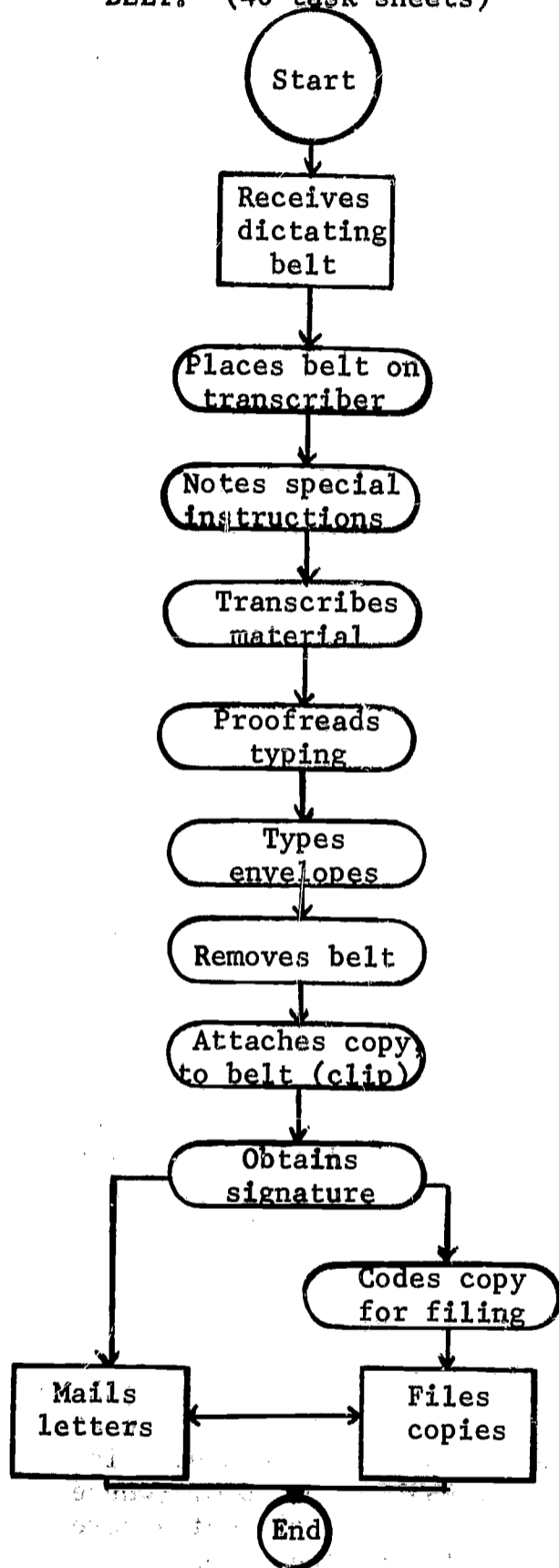
4. GIVEN ORAL INSTRUCTIONS, THE WORKER COMPOSES COPY FOR RADIO COMMERCIALS.  
(2 task sheets)

Receives instructions to write radio commercial copy  
Obtains client's files to determine type of copy desired  
Determines type of ad  
Writes rough draft in longhand  
Seans copy  
Counts words to check time it takes to read  
Rewrites copy when necessary  
Types final draft of radio commercial  
Obtains approval of salesman  
Types approved commercial copy  
Distributes copies  
Destroys original instructions from salesman

5. GIVEN LETTERS, THE WORKER TRANSLATES INCOMING SPANISH MAIL INTO ENGLISH AND OUTGOING ENGLISH MAIL INTO SPANISH. (1 task sheet)



6. GIVEN A DICTATING BELT, THE WORKER TRANSCRIBES COMMUNICATIONS FROM THE BELT. (46 task sheets)



HARDWARE

Dictating machine  
Typewriter

SOFTWARE

Dictated belt  
Envelopes

EDUCATIONAL CUES

Typing  
Shorthand  
Transcription  
Accuracy  
Neatness  
Proofreading

REPORTED CRITERIA: "Retype letter if many corrections; Transcribe 20 minutes of dictation in 40 minutes; Correct punctuation and spelling; Attractive appearance of letter; Follow directions; Typed same day dictated; Type 70-80 wpm and transcribe at 40 wpm"

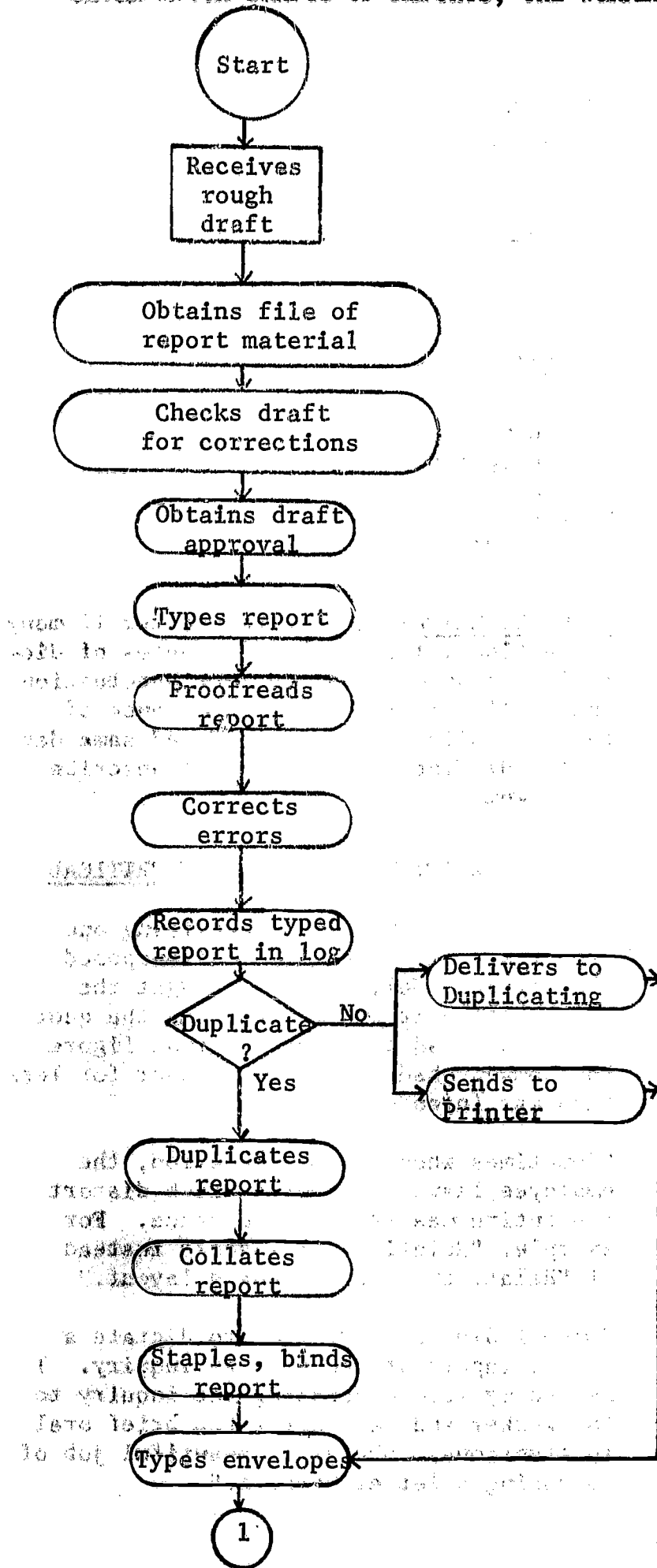
ORAL AND WRITTEN COMMUNICATION CRITICAL INCIDENTS

"I dictated a quotation specifying one price, and the stenographer transposed the figure. Neither of us caught the error before it was mailed. As the quoted price was less than the original figure, the company had to sell the paper for less than was intended."

"Sometimes when taking dictation, the employee leaves out words which distort the entire meaning of a sentence. For example, "Relative our layout" instead of "Relative to our standard layout."

"Once I did not have time to dictate a rather important reply to an inquiry. I handed my memo concerning the inquiry to the worker and gave her a few brief oral instructions. She did a beautiful job of composing a letter herself."

## 7. GIVEN ROUGH DRAFTS OF REPORTS, THE WORKER TYPES REPORTS. (45 task sheets)

HARDWARE

Typewriter  
Stapler  
Staples  
Files

SOFTWARE

Project plan report  
Scientific reports  
Maintenance reports  
State tax reports  
Contract and installation reports  
Preliminary reports  
Progress reports  
Annual reports  
Envelopes

EDUCATIONAL CUES

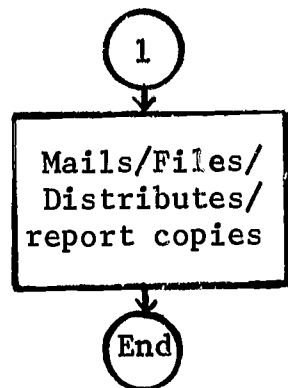
Checking  
Filing  
Proofreading  
Accuracy  
Neatness  
Typing

REPORTED CRITERIA: "Able to decipher handwriting of various persons; Work under pressure; Collate rapidly; Meet deadlines; No errors; 70 to 80 wpm typing; High degree of accuracy"

ORAL AND WRITTEN COMMUNICATION CRITICAL INCIDENTS

"Worker did an excellent job on one report. It was very neat and accurate throughout. In fact, Washington, D.C. (where reports are sent) sent a note of praise on the report."

"On several occasions a worker typed a report showing taxes on a property had been paid when they had not. In several cases



the escrow company caught the error, which is embarrassing and could have lost a customer. Several times no one caught the error before completion of the transfer which resulted in the company having to pay the taxes and then sue the seller in order to recover them."

8. GIVEN INCOMING LETTERS/ORAL REQUEST TO ANSWER, THE WORKER COMPOSES AND TYPES LETTERS. (17 task sheets)

Receives letters/oral request  
Scans letters  
Locates necessary information  
Determines type of reply  
Composes rough draft reply  
Types reply/carbons  
Proofreads reply  
Types envelopes if necessary  
Obtains signature  
Inserts letters in envelope  
Files copy of letter  
Mails letter

HARDWARE

Typewriter  
 Signature stamp  
 Files

SOFTWARE

Envelopes (blank, window)  
 Letterhead paper  
 Incoming mail

EDUCATIONAL CUES

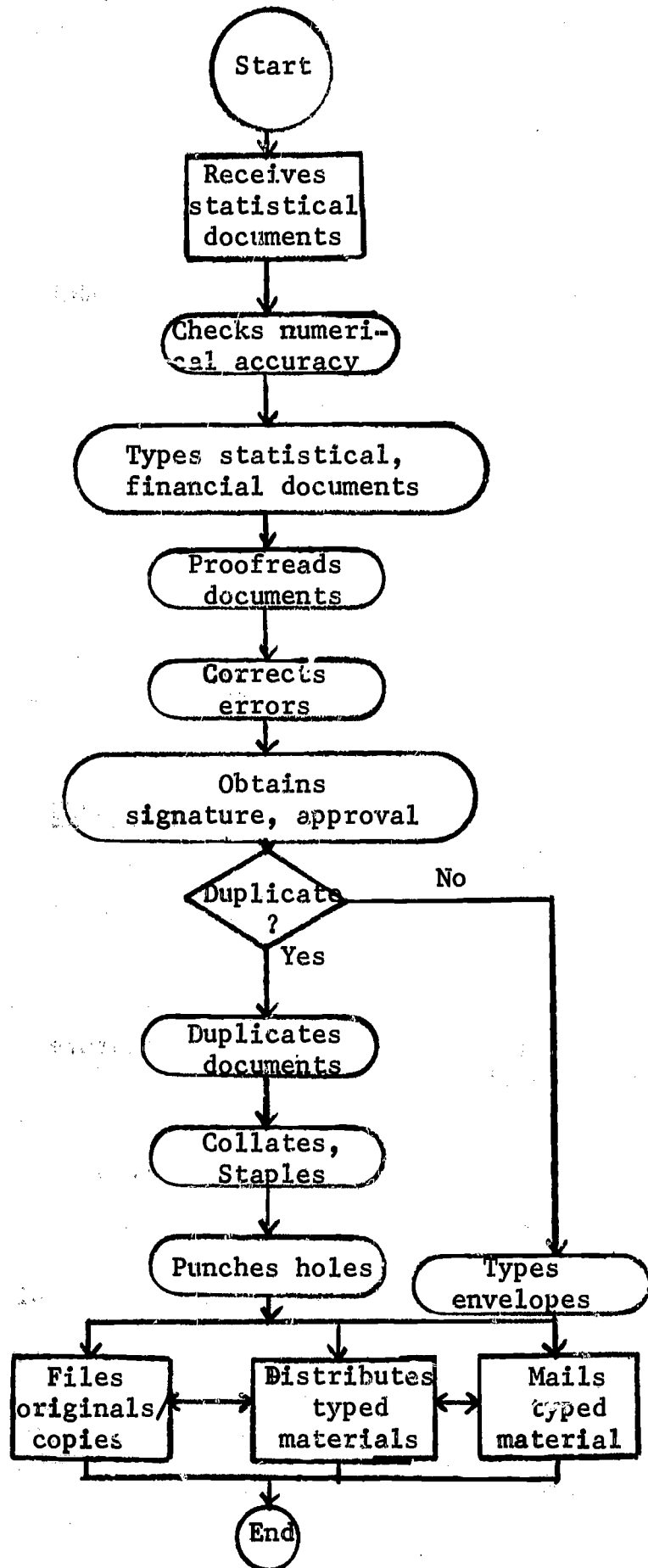
Proofreading  
 Typing  
 Neatness  
 Accuracy  
 Filing

REPORTED CRITERIA: "Necessary information is sent as requested; Signature indicates approval or acceptance; Adhere to time schedule"

9. GIVEN TELEGRAM MESSAGE, THE WORKER SENDS TELEGRAMS. (1 task sheet)

Receives telegram message from supervisor  
Pulls proper shipping order  
Writes shipping date, route, bill of lading number on multi-copy telegram blank  
Files shipping order  
Sorts copies of telegram  
Places original of telegram around cylinder of telegram machine  
Activates machine  
Removes telegram from cylinder  
Files copy of telegram by recipient's name  
Delivers copy of telegram to Accounting

10. GIVEN DOCUMENTS SUCH AS ENGINEERING SPECIFICATIONS, LISTS OF CHECKS, AND RATE SHEETS, THE WORKER PERFORMS STATISTICAL AND FINANCIAL TYPING TASKS. (25 task sheets)



#### HARDWARE

Typewriter  
 Duplicator (Offset, stencil, fluid process, photocopy)  
 Adding machine (10-key)  
 Stapler  
 Staples  
 Hole punch

#### SOFTWARE

List of checks  
 Receipts, payments on ledger sheets  
 Financial statements, reports  
 Rate sheets  
 Engineering specifications  
 Statistical reports  
 Budgets  
 Ledger summary  
 Charts  
 Graphs  
 Tables

#### EDUCATIONAL CUES

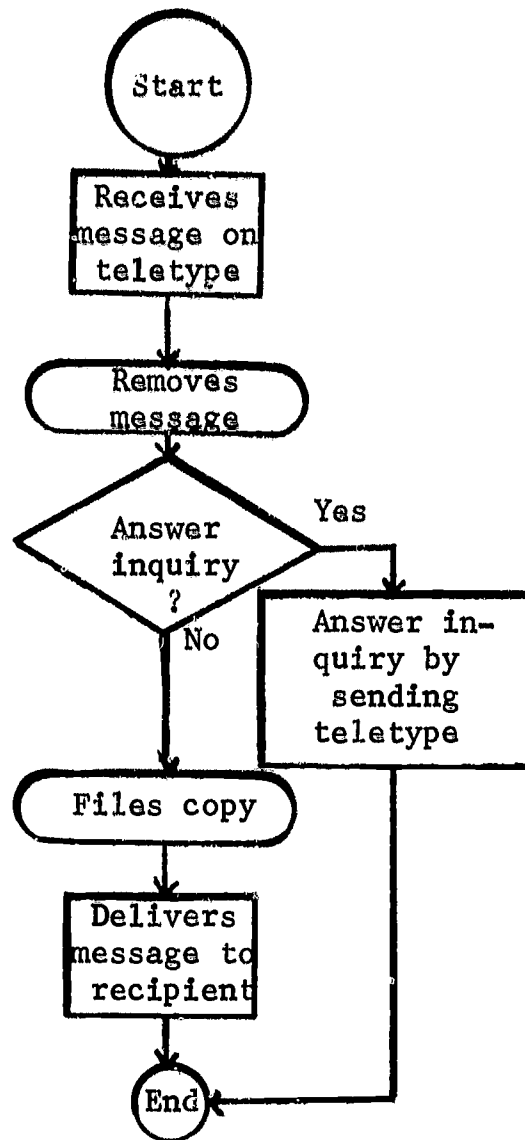
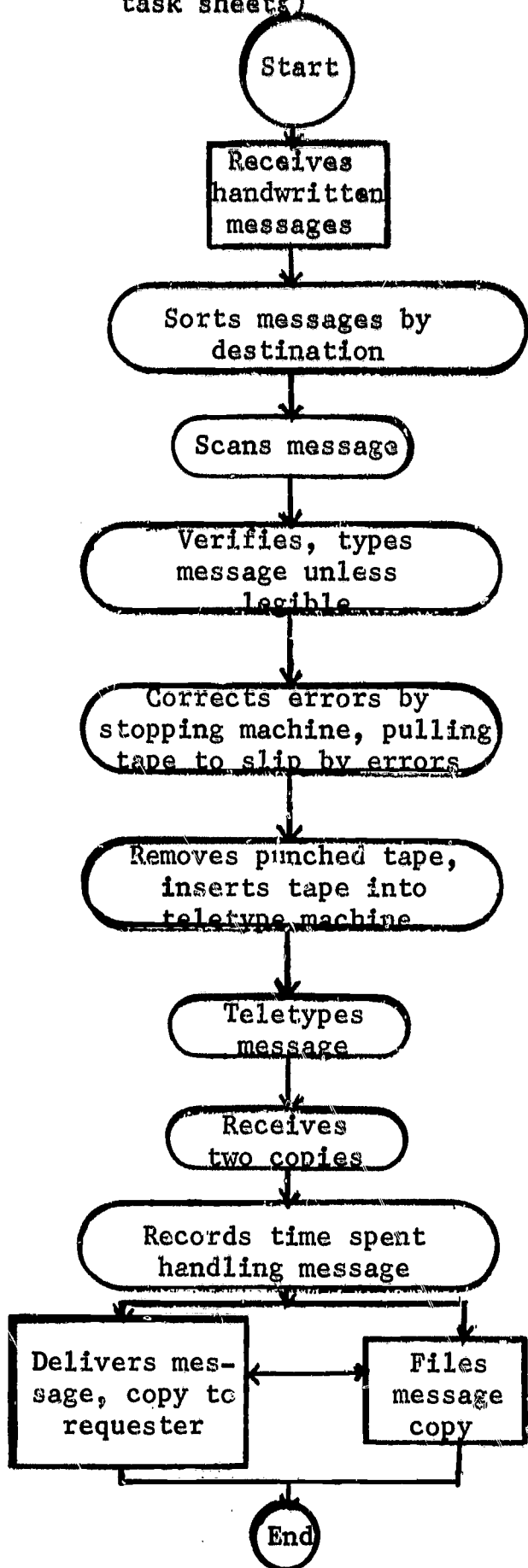
Proofreading  
 Statistical typing  
 Checking  
 Accuracy  
 Filing

SUPPLEMENTARY STEPS: Makes and mounts transparencies.

REPORTED CRITERIA: "Correct data on financial standing of company transmitted to officers of company; Spelling, grammar, technical grammar important; Pay attention to detail; Able to read difficult handwriting; Meet a deadline"



11. GIVEN A TELETYPE MACHINE, THE WORKER SENDS AND RECEIVES MESSAGES. (19 task sheets)



SUPPLEMENTARY STEPS: Stores dated carbon of tapes; Consults Telex directory for correct way to send message; Assigns number and stamps on message; Checks roll of paper on teletype machine.

HARDWARE

Teletype machine  
Sequential stamping machine

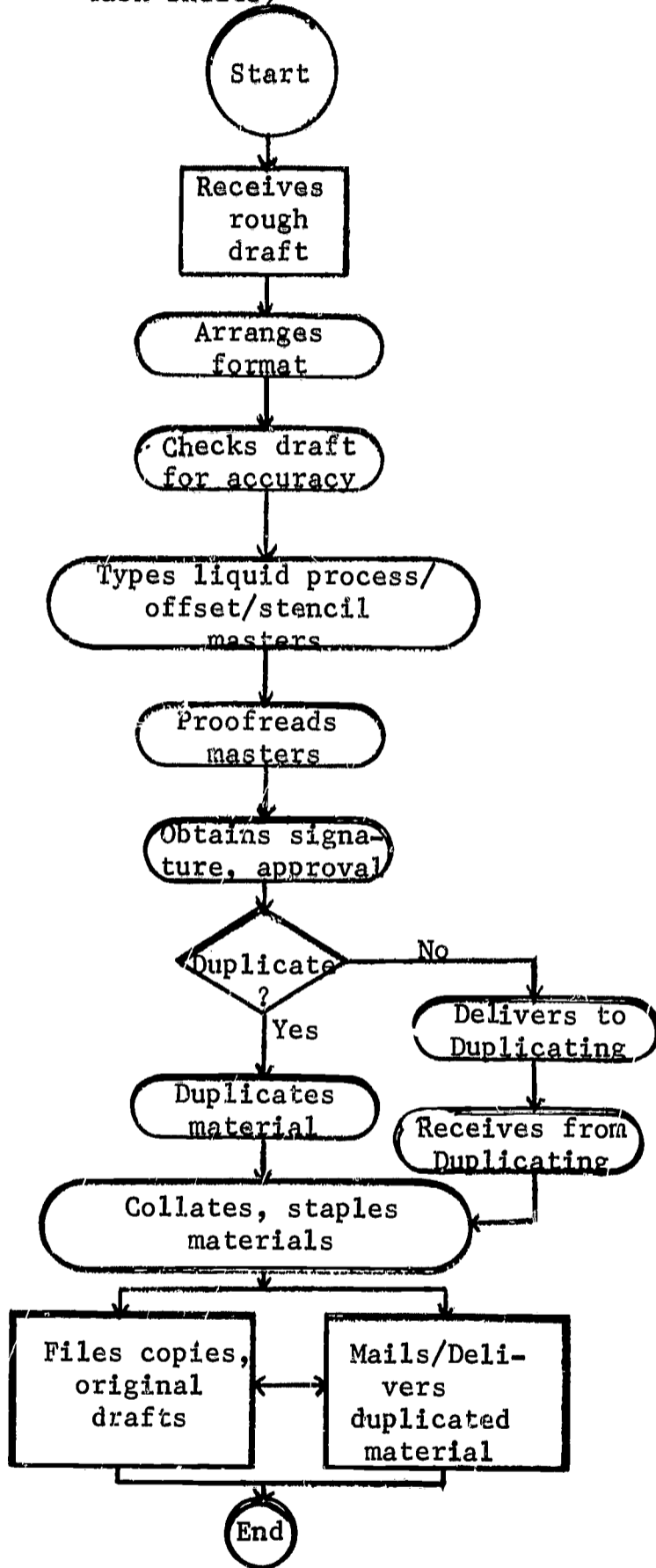
SOFTWARE

Punched tape  
Telex directory

EDUCATIONAL CUES

Accuracy  
Typing  
Filing

12. GIVEN ROUGH DRAFT COPY, THE WORKER TYPES MASTERS AND DUPLICATES. (13 task sheets)



#### HARDWARE

Typewriter  
Staples  
Stapler  
Offset  
Fluid process duplicator  
Stencil duplicator  
Photocopy machine  
Xerography machine

#### SOFTWARE

Carbon ribbon  
Masters copy  
Erasers  
Correcting ink/paint

#### EDUCATIONAL CUES

Checking  
Accuracy  
Typing  
Proofreading  
Correct spelling, grammar, punctuation

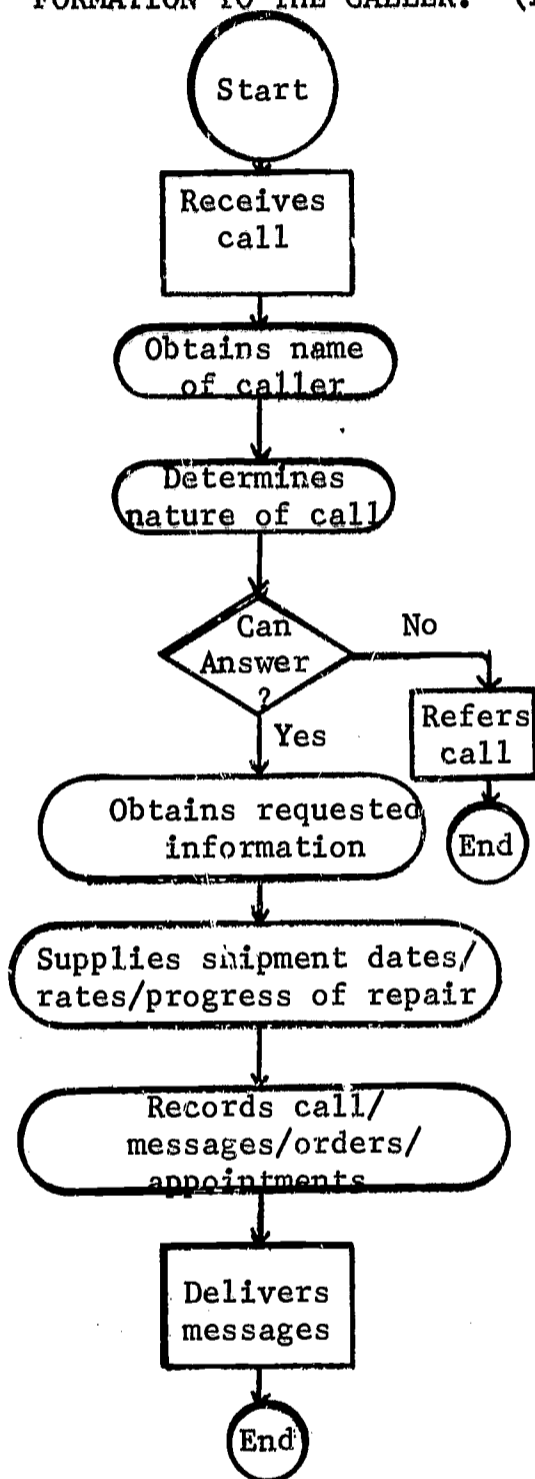
REPORTED CRITERIA: "Cope with a time limit; Correct spelling; A high degree of patience; Good command of English"

#### ORAL AND WRITTEN COMMUNICATION CRITICAL INCIDENT

"A number of years ago the company's charter was amended. Another secretary working in this worker's capacity typed the company name with an ampersand rather than "And." Several states in which the company operates noticed the discrepancy and much time had to be spent communicating explanations. She did not understand the legal implications of such an error, so did not look for such errors when she proofread."

9.2 ORAL AND WRITTEN COMMUNICATION, ORAL COMMUNICATION

1. GIVEN AN INCOMING TELEPHONE CALL, THE WORKER ANSWERS AND SUPPLIES INFORMATION TO THE CALLER. (108 task sheets)



HARDWARE

Telephone

SOFTWARE

Rate sheets  
Company directories  
Message forms

EDUCATIONAL CUES

Company policies, procedures  
Communication skills

REPORTED CRITERIA: "Use discretion screening calls and giving information; Handle 50-60 calls per day; High degree of decision making; Recognize calls that are of a serious nature--to differentiate between a power failure call and a need to empty a wastebasket; Must speak softly; Polite, tactful, courteous; Well modulated voice; Work under pressure"

ORAL COMMUNICATION CRITICAL INCIDENTS

"One employee made an effort to learn to recognize the voices of many people who were frequent callers. One time one of the supervisors from another department told me how much he enjoyed calling our department because of the special treatment that he thought he got from the employee."

"Sometimes she was just a little too helpful. If she was trying to locate someone for a caller, she would cut in on phone conversations."

"She forgets to get the name and number of a caller if she is under pressure."

SUPPLEMENTARY STEPS: Edits orders received on phone; Reminds supervisor of appointments, meetings, deadlines; Types, duplicates reports; Maintains complete record of telephone calls and numbers; Puts off callers when instructed to do so.

2. GIVEN AN INCOMING TELEPHONE CALL, THE WORKER RECEIVES MESSAGES OR REFERS THE CALL TO ANOTHER WORKER. (151 task sheets)

Receives call  
Obtains name of caller  
Refers call to another worker  
Records call, message  
Delivers message

SUPPLEMENTARY STEPS: Takes dictation; Types material for co-worker

REPORTED CRITERIA: "Good diction; Pleasant speaking voice; Take messages accurately; Able to decipher spoken words regardless of accent; Project pleasant, efficient office; Relay messages promptly; Must get names and numbers correctly so call may be returned promptly; Pressure of many phones ringing at once; Sympathetic; Able to calm irate callers; Courteous to all callers; Ability to handle 500-1000 calls per day; High degree of decision making; Diplomatic"

3. GIVEN A TELEPHONE COMPLAINT, THE WORKER PROVIDES THE NECESSARY AID. (1 task sheet)

Receives telephone complaint  
Calls hotel switchboard operator  
Requests operator page houseman and tell him what is needed where

ORAL COMMUNICATION CRITICAL INCIDENTS

"A field unit sent in a request for assistance and the operator promptly relayed it back to the same unit. The unit informed her that if they were able to help themselves, they would not have radioed her in the first place. She then sent them another radio message telling them to give assistance to themselves repeating the error twice. Fortunately nothing serious resulted this time. However, had the officers needed help desperately, this double error could have been very costly."

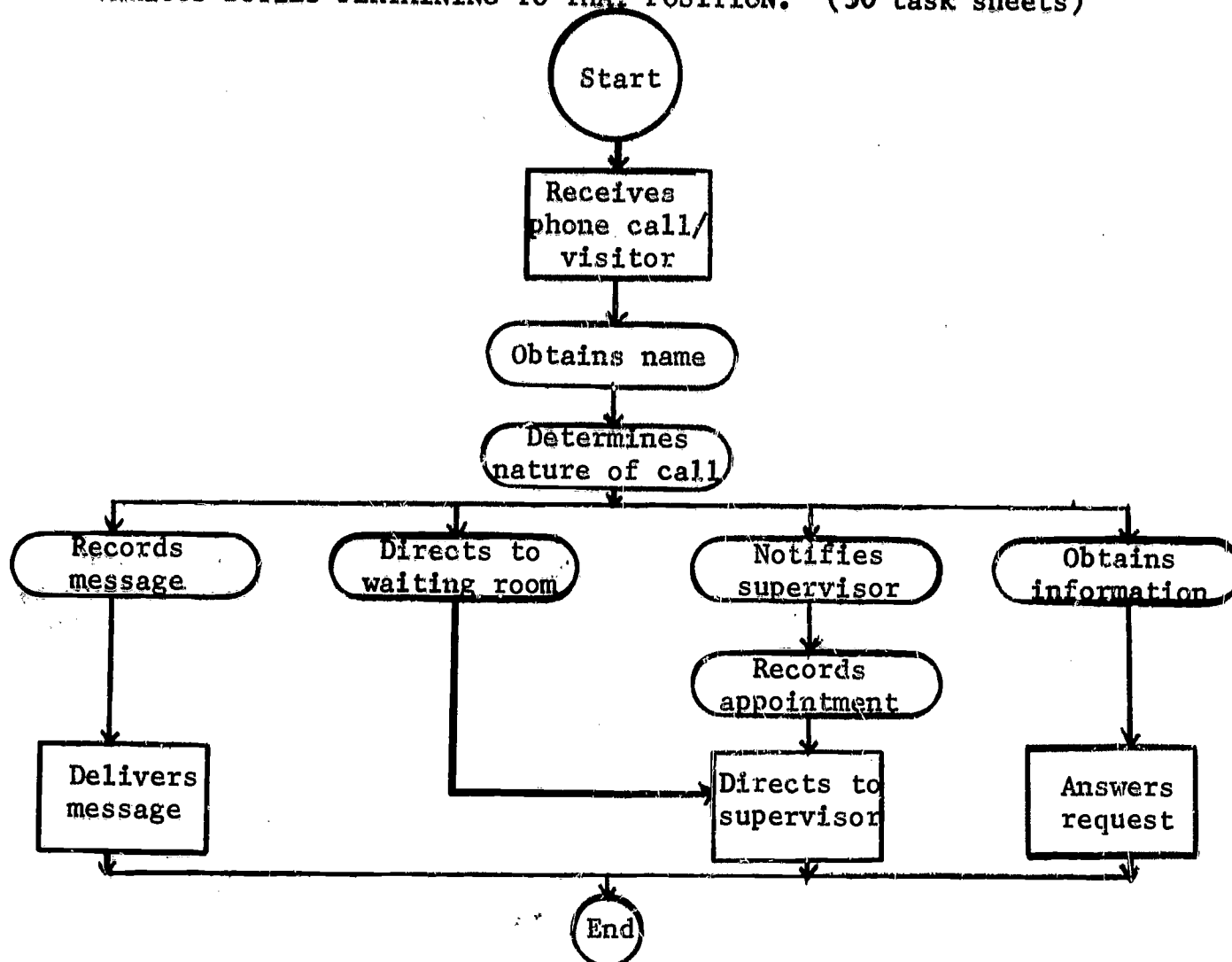
"Not too long ago the worker did not see to it that a particular message was delivered to an attorney. The information in the message was pertinent to an upcoming trial. The result was a delay in the relaying of important information to the attorney's client."

"When this employee first assumed her receptionist duties, she was not familiar with this and other buildings and recent office changes. Consequently, much incorrect information was given."

"Many people, particularly ones to whom we owe money, will drop by unexpectedly and demand to see the president or one of the men in charge. Once, one of these men dropped by and none of the men could see him because they were all in conference. I happened to walk into the receptionist's office and heard her very tactfully explain the situation to him. She listened to his complaint and problems very sympathetically and tried to make him feel she understood and would do everything in her power to relay his problems to the men in charge. I'm sure he went away feeling better than he did before."



4. GIVEN THE RESPONSIBILITIES OF A RECEPTIONIST, THE WORKER PERFORMS THE VARIOUS DUTIES PERTAINING TO THAT POSITION. (50 task sheets)



SUPPLEMENTARY STEPS: Delivers temporary pass to visitors; Notes times entering and leaving on time sheet; Completes visitor's permit; Offers coffee or tea and chats with visitors.

STEPS THAT ACCOMPANY THE POSITION OF SOME RECEPTIONISTS: (17 task sheets)

Assists students in finding work; Arranges appointments; Laminates ID cards; Sells stamps; Assigns rooms; Stamps parking validation tickets; Distributes maps; Takes dictation; Types letters, reports, forms; Files applications; Wraps coins for bank deposit; Issues job application forms; Notes cars and trucks entering or leaving plant.

HARDWARE

Telephone

SOFTWARE

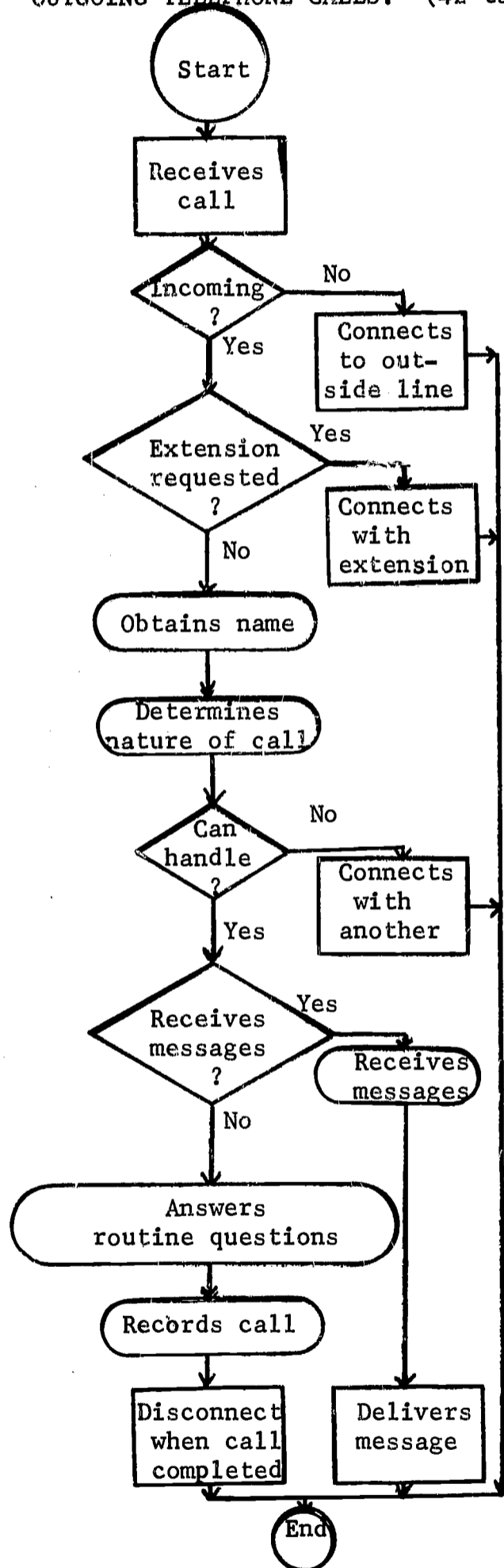
Note pad

EDUCATIONAL CUES

Communication skills

REPORTED CRITERIA: "Must have understanding of people and not get flustered; Patience with people; Absolute accuracy; Good social manners; Ability to greet visitors graciously and to sort out those without prior appointments; Great amount of tact and judgment necessary; Treat all visitors with respect even though it may not be given in return; Must be a good listener"

5. GIVEN THE OPERATION OF A SWITCHBOARD, THE WORKER HANDLES INCOMING AND OUTGOING TELEPHONE CALLS. (42 task sheets)



SUPPLEMENTARY STEPS: Checks list for correct extension.

HARDWARE

Telephone switchboard

SOFTWARE

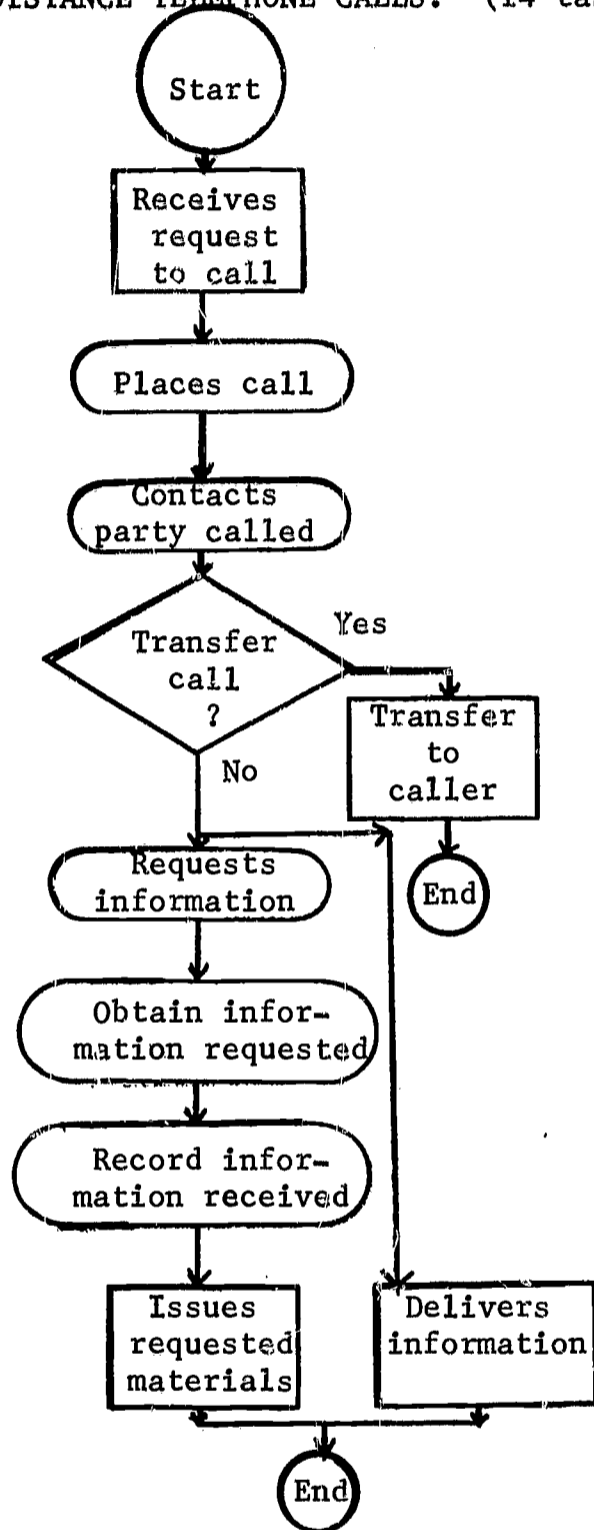
Telephone directories  
Message slips

EDUCATIONAL CUES

Communication skills

REPORTED CRITERIA: "Polite; Often required to 'cool' grouches; Cautious; Diplomatic; Good telephone voice and presentation; Keep conversations as short as possible; Get correct names and telephone numbers; Helpfulness; Able to make overseas long distance calls; Knowledge of company policies; Work under pressure; Must not leave people waiting on the line or hang up on them; Good English grammar; Manual dexterity in handling switchboard"

6. GIVEN A REQUEST TO PLACE A CALL, THE WORKER PLACES LOCAL AND LONG DISTANCE TELEPHONE CALLS. (14 task sheets)



SUPPLEMENTARY STEPS: Arranges for medical exams, appointments; Requests service; Orders supplies; Organizes method of making a number of calls at one time.

HARDWARE  
Telephone

SOFTWARE  
Appointment book  
Order forms

EDUCATIONAL CUES  
Communication skills

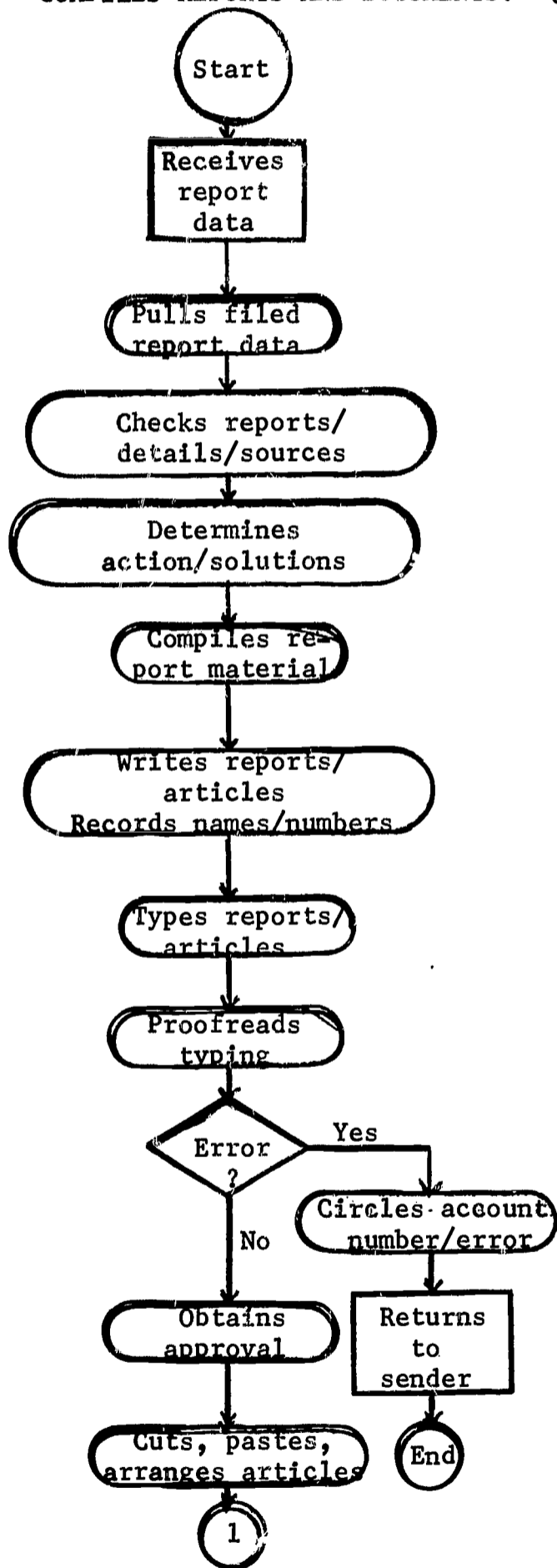
REPORTED CRITERIA: "Must have accurate information; Be patient when placing overseas calls; Spell out names which appear difficult to understand; Pleasant telephone voice and polite, showing interest in the caller and his particular problem"

7. GIVEN A REQUEST TO CONTACT A PERSON, THE WORKER PAGES THE INDIVIDUAL. (2 task sheets)

- Activates paging equipment
- Requests person paged to contact switchboard
- Repeats message
- Deactivates paging equipment
- Delivers message to individual paged when he appears

### 10.1 OTHER SERVICES, NON-COMPUTATIONAL RECORDING

1. GIVEN DOCUMENTS SUCH AS SUPPLY LISTS, INVOICES, AND OUTLINES, THE WORKER COMPILES REPORTS AND DOCUMENTS. (30 task sheets)



#### ACQUISITION

##### RECEIVES

supply list/dictation of outline/reports from managers/newspaper/invoices/assignment/magazines/directory errors list/corrected directory book/completed delivery copies/un-collated survey report

##### Pulls

materials from file/account/account number for social events/pre-printed labels/description of labels

#### PROCESS

##### CHECKS

sources of data/library/account number of customer/name of customer/old forms/balance sheet/wedding dates/work sheet of property title/details of information/report for completeness

##### Stamps

date on newspaper/invoice with employee's number/car papers

##### DETERMINES

extent of owned property/items of interest/design and development of new forms/course of action to take/alternative solutions

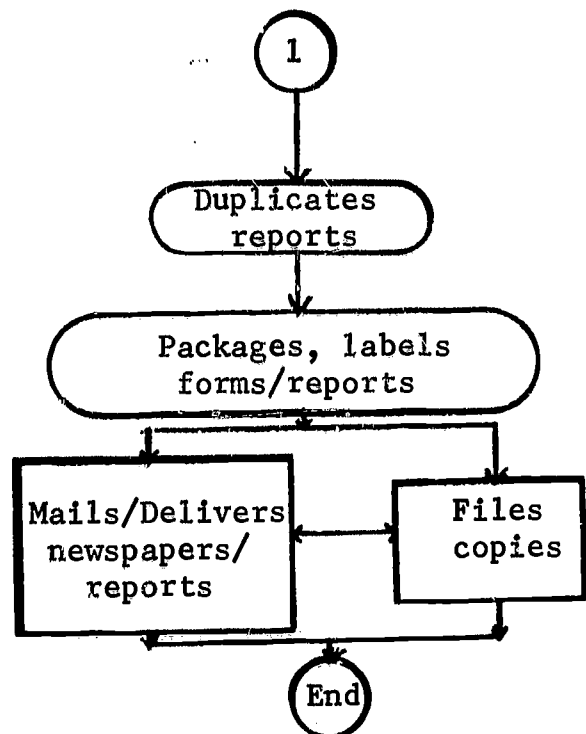
##### COMPILES

information for coming weddings/forms and reports/facts/attach ad to bulletin board/materials at library/books which might contain needed information/new service orders/monthly report/cards in numeric order/sorts by project number

##### Writes/RECORDS

narrative about wedding/statement on assessment of property title limitations/rough draft of summary report/information on cards/invoice numbers/recommendations/information received/articles for evening edition of newspaper/date at top of picture/case name and number in control book/account number on card/rough draft of periodic report/changes/reasons for differences in debit and credit



HARDWARE

Typewriter  
 Handstamp  
 Telephone  
 Bulletin board  
 Stapler  
 Paper drill  
 Duplicator

SOFTWARE

Newspapers  
 Magazines  
 Coding books  
 Reports, lists  
 Acetate binders

EDUCATIONAL CUES

Checking  
 Typing  
 Filing  
 Communication skills  
 Duplicating  
 Coding

REPORTED CRITERIA: "Time very important; Good command of English; Attention to detail; Accuracy in spelling and checking addresses; Property law knowledge; High level of judgment; Reports are neat and accurate; Ability to read financial section; 65 wpm typing, file rapidly and accurately; Time pressure; Moderate knowledge of forms design; Must be kept up-to-date; Finger dexterity and speed"

TYPES

final copy of report/articles/stock information/quotations and exchange rates/name and date of magazine, newspaper in upper right-hand corner

Proofreads

typed materials

Obtains

approval before sending out

Cuts, pastes, arranges

pictures and copy/cuts articles numbered/pastes articles on pink paper/wedding pictures/social events/page of ads/articles

DUPLICATES

calculation sheet for Accounting/all information pertinent to the topic/final copy

Packages, labels forms/reports

DISPOSITIONMAILS

forms to customer

FILES

copy of summary report/materials/newspapers/clipped articles

DELIVERS

recommendation to new forms to supervisor/rough draft to typist/exception report to employer

Distributes

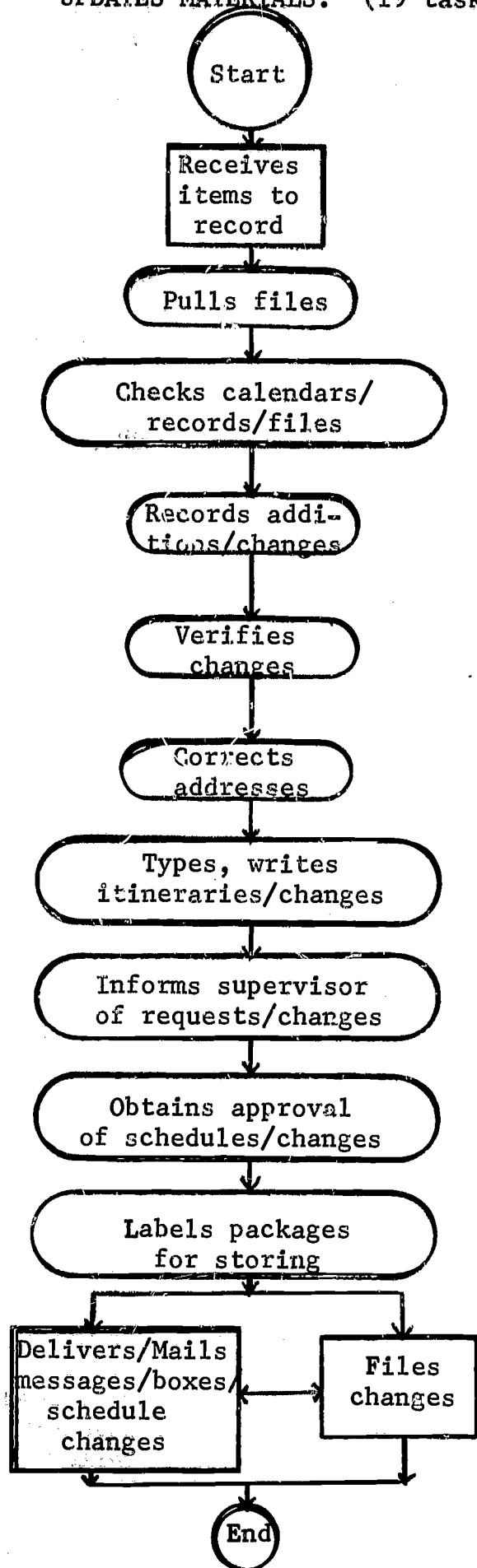
newspaper throughout departments

Places

package in distribution area

SUPPLEMENTARY STEPS: Collates, punches holes, and binds duplicated report.

2. GIVEN RECORDS, SCHEDULES, AND MANUALS, THE WORKER RECORDS ITEMS AND UPDATES MATERIALS. (19 task sheets)



## ACQUISITION

## RECEIVES

new catalog pages/property records/  
lists of cities and programs (TV)/  
telephone call/airline schedules/man-  
power project amendment forms/change  
of procedures form/manuals

## Pulls

change of address files

## PROCESS

## CHECKS

daily calendar/log book for unanswered  
entries/new catalog pages with old/  
files/log sheet for manuals checked  
out/to retrieve missing manuals/re-  
cords for storage

## COMPARES

part numbers to drawings

## RECORDS

changes in master catalog/title of  
property codes/list of cities and pro-  
grams on summary sheet/referrals  
(client) weekly and monthly/date of  
mailings, payments/subject/addressee,  
writer, date of contract/number of  
part/account number/address changes/  
manpower project amendment information  
in log/card numbers being stored/  
dates/procedure changes/whether pro-  
gram is live or delayed broadcast/  
times taking dictation and number of  
pages/schedule changes

## Verifies

all changes

## Corrects

addresses

## TYPES

reminder of appointments/list of  
cities carrying each program/copies of  
program list/salesman's itinerary/card  
on new drawing of machine part/change  
of address form/procedure changes

## INFORMS

supervisor of unanswered requests/  
new procedures/appointments

## Obtains

approval of schedules/changes

## Labels

packages for storing

HARDWARE

Typewriter

SOFTWARE

Calendar

Maps

Master catalog

Code book/log book

Company procedures manuals

EDUCATIONAL CUES

Checking

Typing

Coding

Proofreading

Accuracy

Filing

## DISPOSITION

DELIVERS

storage boxes to Data Control/program listings/messages/schedule to lawyers/airline schedule, change of address to Data Processing/reminders to employer

FILES

old catalog pages/summary sheets/salesmen's itinerary/change-of-address forms/project amendment form/log sheet

MAILS

summary list of programs to client

SUPPLEMENTARY STEP: Inserts new page in master catalog

REPORTED CRITERIA: "Proficient in reading and understanding maps, careful proofreading, interpret information correctly; Type 50 wpm, especially numbers; Accuracy necessary to maintain accounts in current condition"

3. GIVEN DOCUMENTS SUCH AS PRINTOUTS, FORMS, AND STENCILS, THE WORKER CHECKS AND CORRECTS ITEMS. (19 task sheets)

SUPPLEMENTARY STEP:  
Operates MTST

HARDWARE  
Typewriter

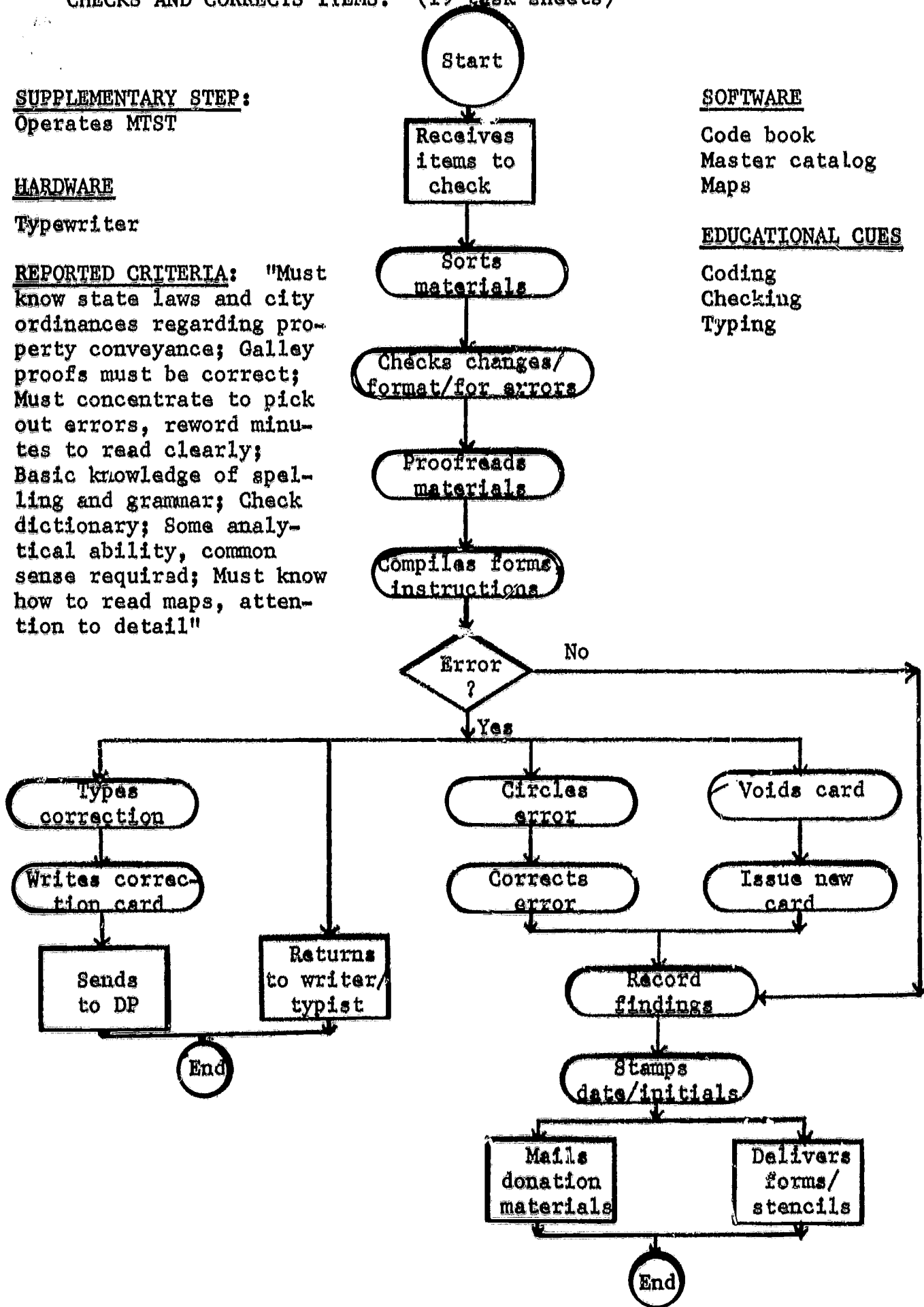
REPORTED CRITERIA: "Must know state laws and city ordinances regarding property conveyance; Galley proofs must be correct; Must concentrate to pick out errors, reword minutes to read clearly; Basic knowledge of spelling and grammar; Check dictionary; Some analytical ability, common sense required; Must know how to read maps, attention to detail"

SOFTWARE

Code book  
Master catalog  
Maps

EDUCATIONAL CUES

Coding  
Checking  
Typing





## ACQUISITION

## RECEIVES

title transfers/items to research/printouts on errors, donations/galley proofs on telephone directory/change sheets/stencil of city council minutes/catalog sheet, changes/materials for publication/miscoded forms

## PROCESS

## SORTS

materials/telephone directory additions or deletions slips

## CHECKS

title transfers/transactions/paid bill files/galley proofs for spelling errors/figures in master catalog/format for enclosures/catalog sheets and changes/materials for publication errors/grammar/spelling/keypunch card for errors/printouts

## Proofreads

typed change sheets/correspondence/city council minutes/catalog sheets/copy aloud with another worker

## COMPILES

necessary forms with instructions to correct errors

## Attaches

coded data on catalog sheets

## RECORDS

title transfer information on form/findings in report/symbol in corner to indicate corrections

## Stamps

galley proofs with date, initials

## DISPOSITION

## MAILS

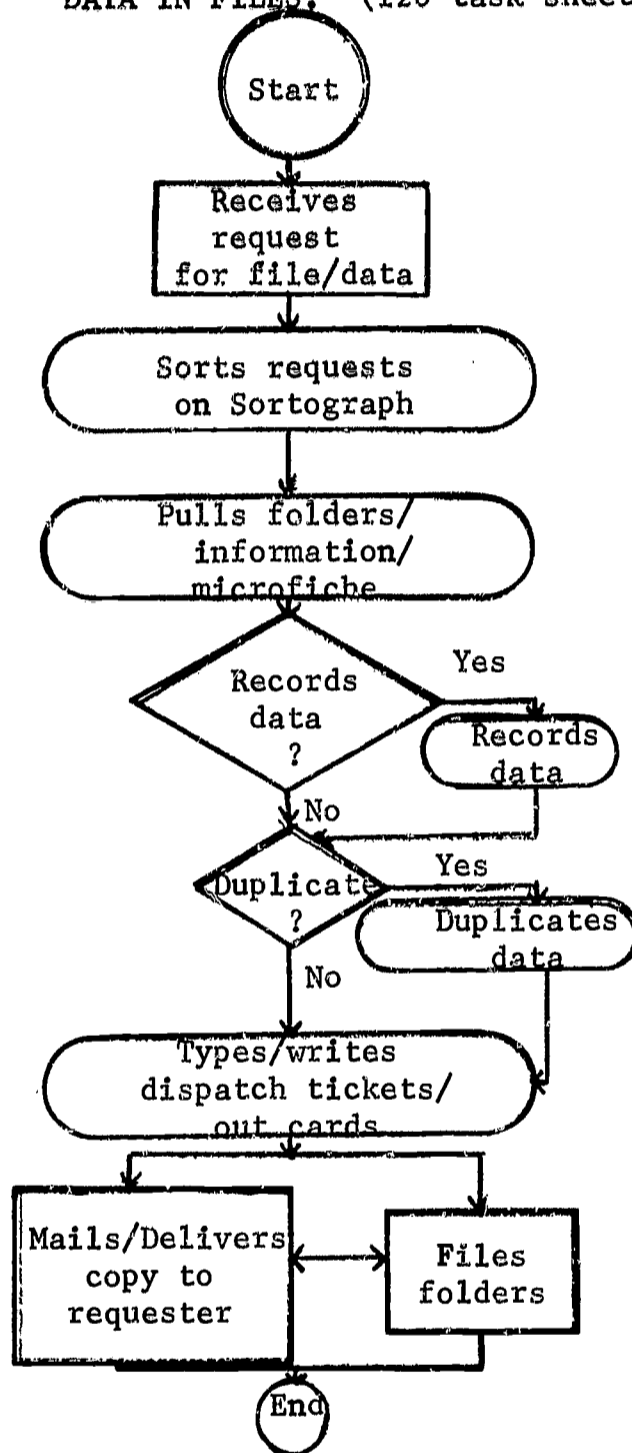
donation materials

## DELIVERS

forms to department involved in correction/errors to typist/correct correspondence to employer/stencil to typist

## 10.2 OTHER SERVICES. FILING

1. GIVEN WRITTEN OR VERBAL REQUEST TO PULL INFORMATION OR FOLDERS FROM FILE OR TO RECORD DATA IN FILES, THE WORKER RETRIEVES MATERIALS OR RECORDS DATA IN FILES. (120 task sheets)



THE FOLLOWING LISTINGS REFER TO THE ENTIRE AREA OF FILING:

### HARDWARE

Files  
Sortograph  
Microfilm viewer  
Microfilm printer  
Photocopy machine  
Hand stamp  
Typewriter  
Adding machine (10-key)

### SOFTWARE

Computer printouts  
Microfilm  
Punched cards  
Legal documents  
Maps  
Blueprints  
Tests  
Personnel records  
Correspondence  
Liquid process masters  
Real estate documents  
TWX message tapes  
Reports/books  
Pamphlets/bulletins  
Phonograph records  
Newspaper items  
Loose-leaf binders  
Magnetic tapes  
Statements  
Invoices  
Requisitions  
Purchase orders  
File folders

SUPPLEMENTARY STEP: Calls company to request new invoice if invoice cannot be found in file.

### EDUCATIONAL CUES

Updating procedures  
Typing  
Filing (alphabetically, numerically, geographically, chronologically, subject)  
Quick, accurate scanning for information  
Follow written/oral instructions

FILING CRITICAL INCIDENT

"The worker files a sales slip for a difficult surname correctly and made several cross reference slips to ensure correct location of the sales slip."

"Auditor found invoices misfiled. The worker filed invoices in paid files that should have been filed in unpaid file."

EDUCATIONAL CUES (CONTINUED)

Read punched cards  
Coding  
Match correlating documents which are not exactly identical  
Cross referencing  
Familiarity with Dewey Decimal System  
Using tickler file

2. GIVEN INFORMATION THAT IS TO BE UPDATED OR THE RESPONSIBILITY TO KEEP FILES UPDATES, THE WORKER UPDATES FILES. (43 task sheets)

Checks daily auditing list from Data Processing for changes to be made in file/other designated sources

Pulls records from file

Records updated information in file

Refiles records

Pulls inactive folders from file

Files inactive folders in inactive file/destroys inactive folders

Types new label, folder if file is to be updated, such as name or address change

Types list of address changes

Files new or updated files

3. GIVEN CODED MATERIALS SUCH AS LEGAL, PERSONNEL, AND PURCHASING DOCUMENTS READY TO BE FILED, THE WORKER FILES THE MATERIALS. (41 task sheets)

Stamps source documents with appropriate stamp, such as "paid"/department name

Sorts materials alphabetically/numerically/geographically/chronologically/by subject

Pulls related documents from files

Matches documents with pulled documents, i.e., copy of check with invoice file copy, a carbon copy and related correspondence--and attaches one to the other

Files materials

FILING CRITICAL INCIDENTS

"Supervisor had a fuzzy idea that a current problem had been encountered before. He briefed the secretary on the situation and she went to the files and pulled out the correspondence relating to the similar case although it was dated before the time of her employment with the company. She had taken his advice and read filed materials in her spare time."

"The worker located some materials in the library that no one else could find. She is familiar with the library."

4. GIVEN SOURCE MATERIALS SUCH AS LEGAL, PERSONNEL, AND REAL ESTATE DOCUMENTS TO BE FILED AND/OR MAILED, THE WORKER CODES AND FILES/MAILS MATERIALS. (35 task sheets)

Receives legal, personnel, real estate documents

Stamps source documents with appropriate stamp, such as "paid" or department name

Sorts materials by vendor/job number/customer name/destination/by copy

Pulls related documents from files

Matches documents with pulled related documents

Checks accuracy of documents with pulled documents--i.e., invoices and job orders--by computing totals on 10-key adding machine

Mails one copy of document in window envelope

Codes materials to be filed by using code reference books/by underscoring words under which it is to be filed

Cross references materials in all possible classifications

Files materials alphabetically/numerically/geographically/chronologically/by subject

Types tab/folder if file is not available/if folder needs repair

Records (manually/types) information concerning files on company records such as number of new files made/where item is filed/information in tickler/suspense file

REPORTED CRITERIA: "Files 100-175 books per day; Files 300 source documents per day; Checking ranges from no check other than self-check to all pieces of work checked by someone else; Absolute accuracy more important than speed; Neat and organized; Filing not allowed to accumulate; Patient; Slight typing skills--up to 50 wpm; Asks for help is unsure about where to file materials; Good memory"

#### FILING CRITICAL INCIDENTS

"One of the business office people asked her to pull a file of correspondence on a project that was being funded by the Federal government. She knew exactly what he wanted and where to look for it. She doesn't just file. She makes a point of knowing what she files as well as something about it."

"One day the supervisor was unable to locate a folder in the files of the department. All folders are filed by number and after three months are sent from the department to Central File where they are kept in storage for 10 years. The worker realized what the supervisor was looking for and quickly went to the Central File to check out the specific file the supervisor needed. She returned shortly with the information he needed for a meeting."

STANDARD OPERATING PROCEDURE

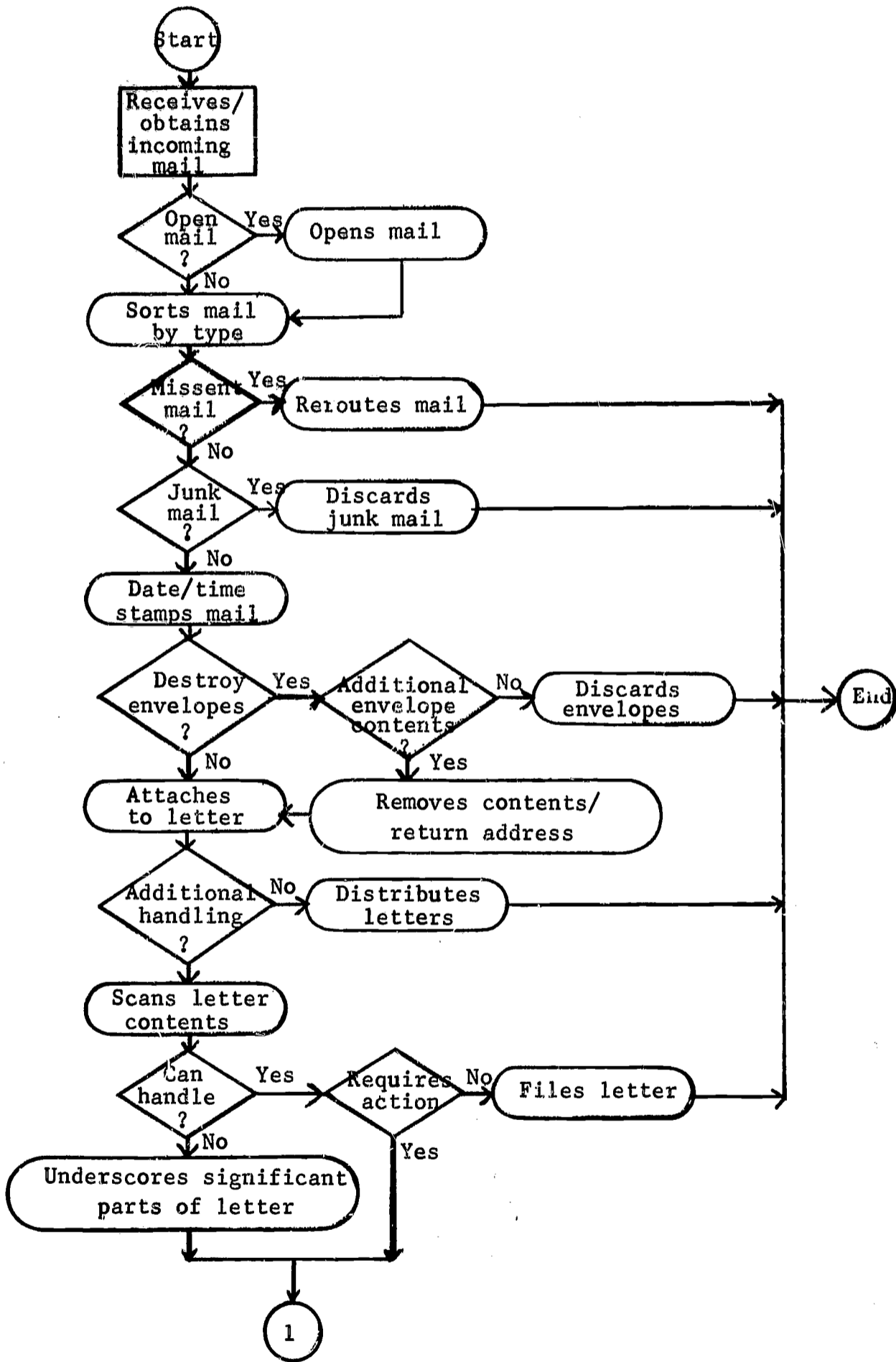
Source materials are received from various departments and are filed in the appropriate folders. The worker checks the accuracy of the documents and files them in the appropriate folders. The worker also checks the accuracy of the documents and files them in the appropriate folders. The worker also checks the accuracy of the documents and files them in the appropriate folders.

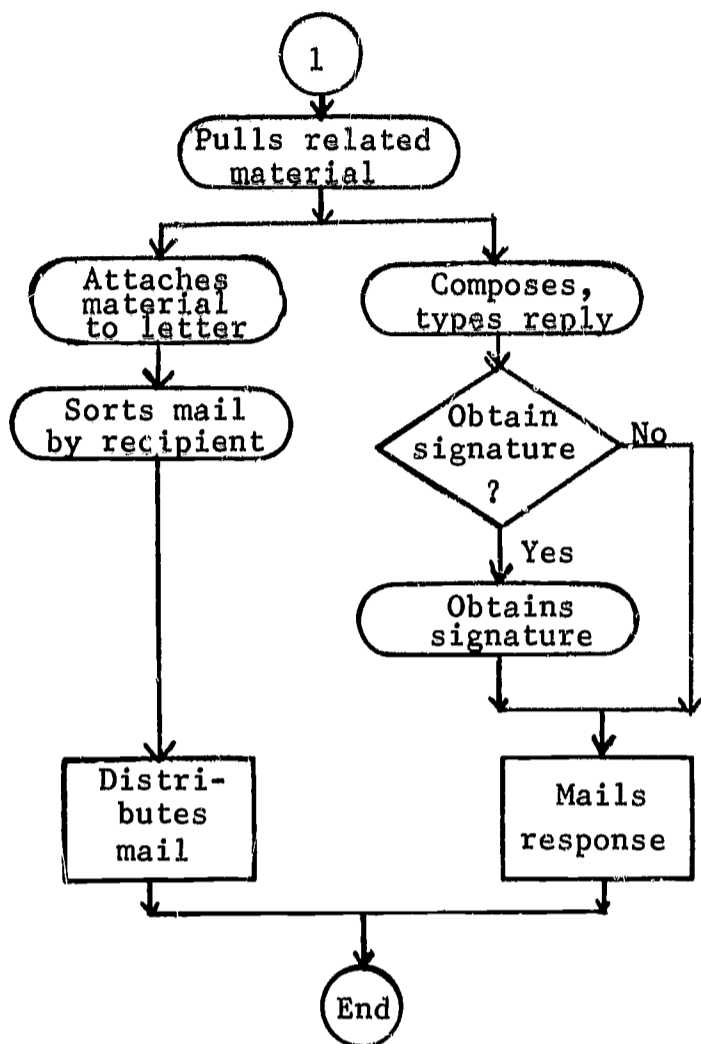
The worker also checks the accuracy of the documents and files them in the appropriate folders. The worker also checks the accuracy of the documents and files them in the appropriate folders.



10.3 MAILING

1. GIVEN DEPARTMENTAL INCOMING MAIL, THE WORKER OPENS, SORTS, ANSWERS/ DISTRIBUTES THE MAIL. (99 task sheets)





**REPORTED CRITERIA:** "Accuracy in checking for enclosures; Decides if information can be supplied by worker; Comprehend letter content to enable attaching proper files; Handle task quickly; 100-150 pieces of mail handled daily; Route correctly, promptly; Alert; Date stamp all mail distributed; Each worker performs task one week every two months"

**SUPPLEMENTARY STEPS:** Delivers rerouted mail; Sign replies; Follows up with supervisor on disposition of letter given him earlier

Note: Hardware, Software, Educational Cues listed below refers to entire area of Mailing.

#### HARDWARE

Car  
Addressing machine  
Addressing machine plates  
Collator  
Typewriter  
Graphotype machine  
Folding machine  
Envelope sealer  
Mail cart  
Mail rack  
Inserter machine  
Postage meter  
Scales  
Letter opener (electric, manual)  
Date/time stamp  
Photocopy machine

#### SOFTWARE

Envelopes  
Shipping tickets  
Mailing lists  
Bulletins  
Mass mailing materials  
String  
Incoming/outgoing mail

#### EDUCATIONAL CUES

Composition of letters  
Typing  
Checking  
Accuracy  
Routing letters

2. GIVEN DEPARTMENTAL OUTGOING MAIL, THE WORKER PROCESSES THE OUTGOING MAIL.  
(6 task sheets)

Receives/obtains outgoing mail  
Selects necessary enclosures  
Separates copies of statements/documents  
Checks accuracy of statement with original  
Photocopies letter, accompanying documents if necessary  
Files original letter received and copy of response  
Files memo in suspense/pending file  
Types envelopes if necessary  
Folds and inserts materials  
Collects outgoing mail from departments out boxes  
Delivers to Mailing or  
Sorts mail by local, outstate  
Weighs, stamps, mails letters, packages

Note: In addition, task sheets citing both departmental incoming and outgoing mail handling numbered 13.

3. GIVEN INCOMING COMPANY REGULAR MAIL, THE WORKER PERFORMS MAILROOM DUTIES.  
(19 task sheets)

Obtains mail twice daily from post office or  
Receives mail in Mail Room  
Sorts mail by individuals and company  
Places mail addressed to individuals in pigeonhole/bins/slots  
Opens company mail by machine  
Removes envelope contents from company mail  
Scans contents for distribution or  
Delivers to readers who determine distribution

4. GIVEN CERTIFIED/SPECIAL DELIVERY/REGISTERED MAIL, THE MAILROOM WORKER  
ACCEPTS AND DELIVERS THE MAIL. (6 task sheets)

Receives special mail  
Checks "special mail" book for postman's listing of mail pieces  
Signs book acknowledging receipt of mail  
Stamps time/date received  
Writes exact building location destination on each piece of mail  
Lists certified/registered mail numbers  
Calls departments to send employee to pick up letter  
Writes name of department person notified on envelope  
Delivers personally any letters not picked up (twice daily)  
Records signature of person accepting letter

5. GIVEN COMPANY OUTGOING MAIL, THE MAILROOM WORKER PROCESSES COMPANY OUT-  
GOING MAIL. (22 task sheets)

Receives company outgoing mail  
Sorts outgoing mail by categories: local-first class, out-of-town first class, and special mail, airmail, foreign mail, other mail requiring more than 6 cents postage

Sets postage meter and operates for each mail category  
Ties metered mail into bundles with string  
Places tied, metered mail in mail bags  
Places airmail/foreign mail in specially marked mail bag

SUPPLEMENTARY STEP: Records departmental postage billing

Note: In addition, task sheets citing company incoming, outgoing, and special mail handling numbered 26.

6. GIVEN A MAIL CART AND MAIL TO BE DELIVERED, THE WORKER DELIVERS BUILDING MAIL AND PICKS UP OUTGOING MAIL. (16 task sheets)

Obtains mail cart, telegrams, packages, mail  
Arranges mail in cart by stops made on delivery route  
Inserts time card in clock to indicate beginning of mail run  
Delivers cart contents to building departments  
Obtains outgoing mail from each department/out box while delivering mail  
Arranges outgoing mail on cart by department  
Delivers outgoing mail to Mailing  
Inserts time card in clock to indicate conclusion of mail run

SUPPLEMENTARY STEP: Picks up and delivers inter-company mail

7. GIVEN PACKAGING MATERIALS, SUPPLIES, THE WORKER PACKAGES ITEMS, DETERMINES POSTAGE, AND ATTACHES POSTAGE, ADDRESS LABEL TO PACKAGE. (5 task sheets)
8. GIVEN MAIL SLIPS OF NEWLY REGISTERED/CHECKED-OUT HOTEL GUESTS, THE WORKER MAINTAINS THE MAIL RACK OF CURRENT HOTEL GUESTS. (1 task sheet)
9. GIVEN INCOMING PUBLICATIONS FOR CIRCULATION AND INSTRUCTIONS ON ROUTING THE PUBLICATIONS, THE WORKER TYPES AND ATTACHES A ROUTING SLIP TO EACH PUBLICATION. (8 task sheets)
10. GIVEN INCOMING COMPANY MAIL REQUESTING STANDARD PRODUCT INFORMATION, THE WORKER OPENS, ANSWERS, AND MAILS RESPONSE. (6 task sheets)
11. GIVEN INCOMING MAIL AND CUSTOMER FILES, THE WORKER PULLS APPROPRIATE CUSTOMER FILES AND ATTACHES INCOMING MAIL BEFORE GIVING TO CO-WORKER/SUPERVISOR FOR PROCESSING. (4 task sheets)
12. GIVEN TYPED INVOICES, PURCHASE ORDERS, STATEMENTS, CHECKS, CONTRACTS/PREPARED COUPON BOOKS, DOCUMENT PACKS, THE WORKER SEPARATES THE MATERIAL, FOLDS AND INSERTS INTO ENVELOPES AND PLACES EXTRA COPIES IN BASKET FOR FILING. (25 task sheets)
13. THE WORKER PICKS UP, SORTS, AND DELIVERS INTEROFFICE MAIL. (6 task sheets)



14. GIVEN MAILING MATERIALS AND INSTRUCTIONS, THE WORKER PREPARES BULK/MASS/DAILY QUANTITY MAILINGS. (28 task sheets)

Receives materials/mailing instructions  
Determines size, type envelopes  
Operates addressing machine  
Folds, inserts material in envelopes  
Inserts envelopes in envelope sealing machine  
Weighs one letter  
Sets postage meter to amount, date  
Operates postage meter running envelopes through it  
Sorts local, outstate mail  
Batches mail into stacks and ties  
Records total postage/total pieces sent  
Sends note to originating department giving quantity/postage/date, time sent

**SUPPLEMENTARY STEPS:** Collects each salesman's letters from all workers and inserts in window envelopes; Types envelopes; Locates zip code and adds to address

15. GIVEN SORTED INTERCOMPANY MAIL/PAYCHECKS/FINANCIAL DOCUMENTS, THE WORKER DELIVERS THE MAIL/ACCOUNTING DOCUMENTS TO THE POST OFFICE/OTHER BUILDINGS, BRANCHES OF THE COMPANY. (7 task sheets)

16. GIVEN MAILING INSTRUCTIONS, SUPPLIES, THE WORKER UPDATES MAILING LISTS/PLATES AND/OR OPERATES AN ADDRESSING MACHINE. (16 task sheets)

Receives bulletins/metal addressing plates/instructions  
Scans incoming mail for address changes/address change requests  
Checks revised listing with old listing  
Types new plates/cards for mailing list additions (and frames)  
Blanks out information on plates to be changed  
Places first page of bulletin/envelopes on addressing machine table  
Operates addressing machine  
Returns metal addressing plates to cabinet  
Sorts mail by local, outstate, international  
Delivers one-page bulletins to outgoing mail/several-page bulletins to Collating/labeled boxes of addressed envelopes to requesting department/  
 addressed envelopes to workers for stuffing  
Files copy of addressed, sent material

**SUPPLEMENTARY STEPS:** Collates multiple-page addressed bulletins; Types rolls of labels; Types, files new index card of address addition; Runs publication through folding machine

**REPORTED CRITERIA:** "Must include all necessary people in mailing; Able to establish priorities; Make minor addressing machine repairs"

17. GIVEN INSTRUCTIONS AND/OR SMALL GOODS, THE WORKER PERFORMS THE DUTIES OF A MESSENGER/DELIVERY MAN. (12 task sheets)

Receives instructions/duplicated copies/typed materials/blueprints/schedules/  
product sample

Writes pick-up/delivery/packaging instructions

Selects travel route

Travels to location

Obtains item, shipping ticket copy

Signs shipping ticket/record book

Delivers item--typed material/office, plant supplies/blueprints/work-order  
sheets/product sample to laboratory/requesting department

Returns vehicle to parking space

SUPPLEMENTARY STEPS: Records mileage for reimbursement; Calls supervisor to inform shipment not ready/incorrect; Sends schedules to departments in other buildings

REPORTED CRITERIA: "Must have chauffeur's license, geographic knowledge of locality, promptness; Must know metropolitan area"

18. GIVEN ENVELOPES IN STACKS OF 100 WHOSE CONTENTS WERE READ BY COMPANY READERS, THE WORKER PASSES EACH ENVELOPE OVER A SCANNING LIGHT DETERMINING IF THE SUPPOSEDLY EMPTY ENVELOPES HAVE ANY ADDITIONAL CONTENTS. (1 task sheet)

MAILING CRITICAL INCIDENTS

"The worker forgot to check an envelope carefully, and a check was thrown out. It took the worker three days going through trash-paper bags to find it."

"This employee does very well in reading and sorting mail that is not addressed to anyone in particular. She is very careful, and in one case she questioned a letter of complaint from a customer and made certain it went to the right department. Had she been less alert, she might have caused embarrassment to the department."

"The worker was making her last mail delivery and pickup for the day. One of the secretaries in one of the departments asked the worker to wait a few minutes while she finished typing the signature lines of a first-class letter. The worker told the secretary that if she wanted the letter to go that day, the secretary would have to bring it down to the mail room herself. The secretary did bring down the letter and told the supervisor about what happened. This situation has caused friction between the worker and this department's secretary."

"One messenger once left a bag of police mail containing evidence and other confidential material in the parking lot behind the police station and drove off. An alert citizen spotted the bag and notified the police who retrieved it and recalled the driver."

"The worker once ran 10-15 envelopes through the metering machine on the wrong side. It was a 15,000 piece mailing job, and she was quite rushed."

MAILING CRITICAL INCIDENTS

"At least once a week the worker is late getting a mail run in. We get telephone calls from second floor offices asking where the mail is. Upon checking he may be found visiting in the hall."

"On her first day at work, the worker sketched an office map and entered the name of the occupant of each office so she could be effective in the performance of her job as mail girl."

"Today we're involved in re-running a mailing. (Lack of coordination between machine maker, postal regulation changes, and servicing of meter machine resulted in a gross error.) The worker must untie, re-meter, re-bundle, re-sack, fill out new postal forms, and deliver back to the post office a huge mailing of the magazine. He is doing this most effectively, quickly, and without complaint."

"A previous worker in making deliveries gave the wrong package to a company executive. The executive rather than getting a projector and film for an important sales conference in New York, actually received a box of printed materials having nothing to do with the sales meeting. The projector and film ended up on the West coast. The error was not discovered until the package was opened in New York."

"The worker quite frequently gets careless and opens personal mail which she is not supposed to open. Monday, one of the office staff became quite angry because this was the second time the worker made this error with this person's personal mail."

"In processing monthly invoices the worker did not check the date of the stamp. The supervisor had to return at midnight and feed the invoices one by one into the postage meter to put the correct date in the middle of the envelope where the post office would recognize the date correction."

"When the worker was preparing the mailing label forms, he mistakenly tore off the wrong part of the form to be used as the label. The person who had ordered the package sent to another ended up receiving it."

"Last Friday the worker interrupted his personal plans in order to get out a large bulk mailing before the postal rates went up. (It has to be in the post office by midnight.) His extra effort saved the company money."

"One employee put the wrong postage (not airmail, special delivery as it should have been) on a letter, and it was returned by the post office. This caused a time delay which proved most inconvenient for the executive who had sent it."

"The worker just finished updating the mailing list with 1,000 additions. She did an excellent job."



10.4 OTHER SERVICES, DUPLICATING

1. GIVEN ORAL OR WRITTEN REQUEST FOR MATERIALS TO BE DUPLICATED, THE WORKER PREPARES THE MASTERS AND DUPLICATES. (46 task sheets)

Determines whether the material is legally reproducible/color of ink, paper, machine to be used

Types master

Proofreads typed materials

Duplicates materials

Collates materials

Binds/staples copies

Records time taken to perform task, number of copies duplicated in log

Notifies requesting department when work is completed

Files originals or copies of work

Sends/mails/delivers material to destination

SUPPLEMENTARY STEPS: Trains new employees in operation of hardware; Readies machine for next use.

THE FOLLOWING LISTINGS REFER TO THE ENTIRE AREA OF DUPLICATING:

HARDWARE

Offset press  
Microfilm printer  
Lithograph  
Typewriter  
Collator  
Check copier  
Addressograph  
Liquid duplicator  
Photocopy machine  
Files  
Electric stencil maker  
Camera  
Blueprint copier  
Developing plates

SOFTWARE

Microfilm  
Masters  
Previously prepared  
masters, plates  
Filed materials  
Ink  
Paper  
Film  
Blueprints

EDUCATIONAL CUES

Typing masters  
Proofreading  
Follow instructions  
Alphabetic/numeric  
filing  
Know advantages,  
limitations in use  
of machines and  
materials

REPORTED CRITERIA: "Readable copy of driver's record is given to requesting party; Work always under pressure; Constant rush deadlines are standard; Must operate all hardware; Good color recognition; Accurate, clear microfilm record of all blueprints; Must determine if copy is good enough for specific purpose; Runs 5,000 - 10,000 sheets of printed copy daily; Neat, accurate"

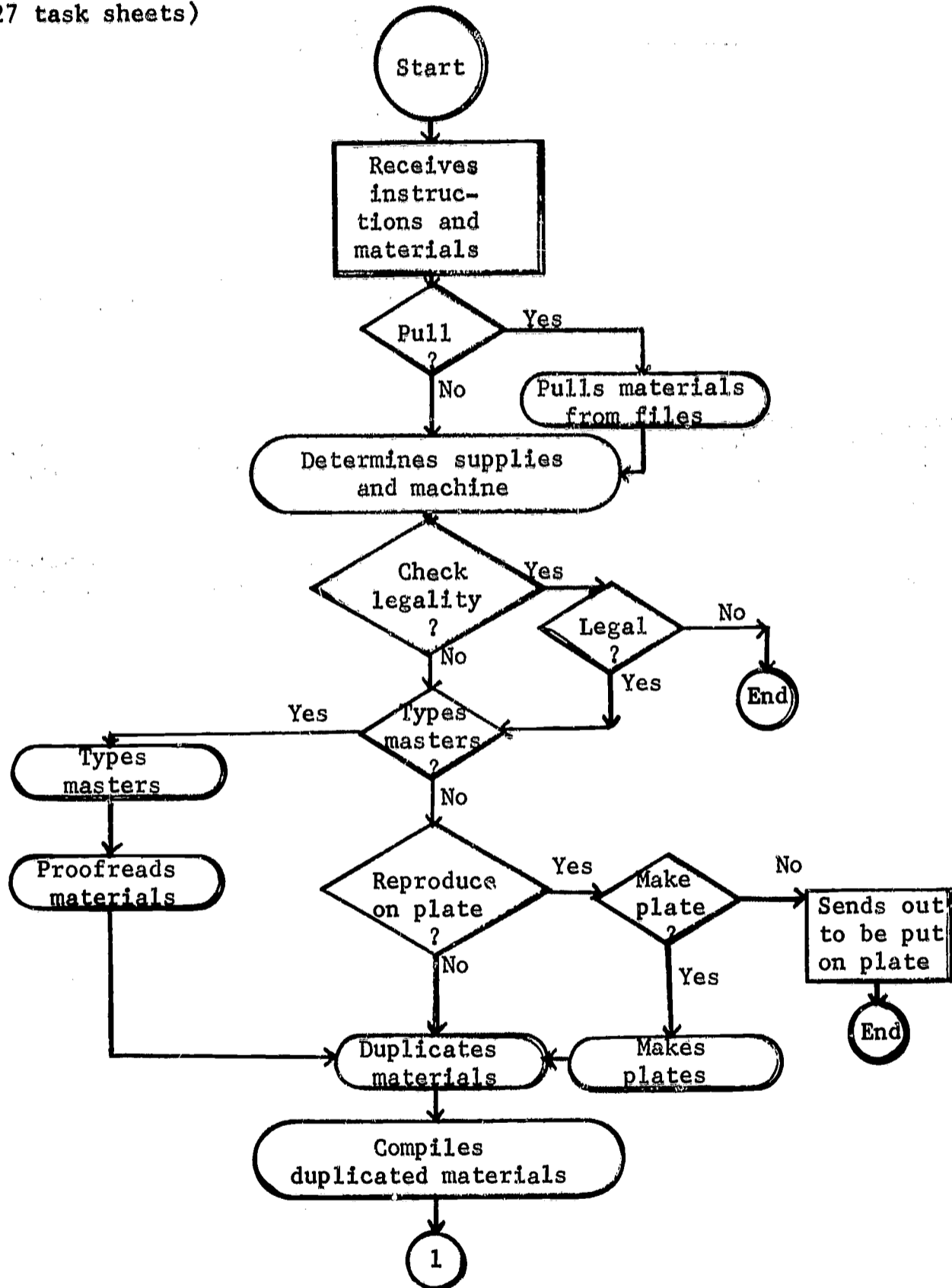
DUPLICATING CRITICAL INCIDENTS

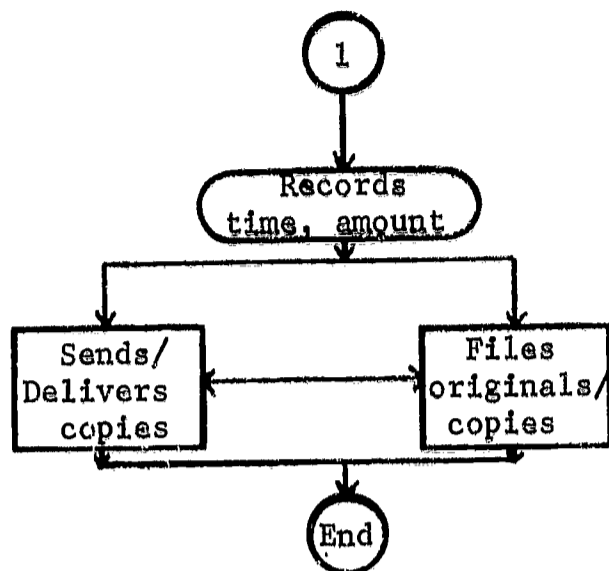
"The worker misspelled several foreign words on one of the menus she typed and duplicated. Luckily the errors were caught. Consequently, someone must proofread her work since a misspelled word often can give a wrong meaning to the item on the menu."

"She just finished typing and duplicating a report of a research committee --51 pages--from a rough draft. She did an outstanding job."



2. GIVEN WRITTEN OR ORAL REQUEST FOR PREPARED MATERIALS OR INSTRUCTIONS TO PULL PREPARED MATERIALS, THE WORKER DUPLICATES MATERIALS. (15 task sheets)
3. GIVEN ORAL/WRITTEN INSTRUCTIONS AND MATERIALS TO BE DUPLICATED/INSTRUCTION TO PULL MATERIALS, THE WORKER DUPLICATES THE MATERIALS. (27 task sheets)





SUPPLEMENTARY STEPS: Corrects machine malfunction; Calls appropriate person to correct malfunction; Readies machine for next use; Makes plate by using camera; Sends material out to have plate made.

DUPLICATING CRITICAL INCIDENTS

"We received a rush spirit duplicating job from one of the departments. They told her they wanted it by the next day if possible. She got the job done and back to them the same day she received it."

"During finals the employee placed a stencil backwards on the mimeograph which caused the final exam to be rescheduled at the inconvenience of the instructor and students."

11. MISCELLANEOUS

1. GIVEN MATERIAL TO COLLATE, THE WORKER MANUALLY OR USING A COLLATING MACHINE, COLLATES THE PAGES IN PRESCRIBED ORDER. (4 task sheets)
2. GIVEN PRINTED MATERIALS, THE WORKER BINDS RECORDS OR PADS FORMS. (3 task sheets)
3. GIVEN REQUESTS FOR EQUIPMENT, THE WORKER ARRANGES FOR THE SUPPLY OF OFFICE EQUIPMENT AND COORDINATES MATERIALS AND EQUIPMENT MOVES. (3 task sheets)
4. GIVEN ORAL INSTRUCTIONS, THE WORKER PERFORMS PROCEDURES AND TIME STUDIES FOR THE COMPANY. (3 task sheets)
5. GIVEN COMPUTATIONS, THE WORKER SKETCHES LINES AND GRAPHS TO SHOW GRAPHIC TEST RESULTS. (3 task sheets)
6. GIVEN RECORD CARDS AND SAMPLES OF SEED OR SLAG, THE WORKER PERFORMS TESTS AND WRITES A SEED COUNT REPORT OR SLAG SAMPLE REPORT. (3 task sheets)
7. GIVEN THE NEED, THE WORKER KEEPS THE RECEPTION ROOM IN PROPER ORDER AND MAKES AND SERVES COFFEE FOR EMPLOYEES AND GUESTS. (3 task sheets)
8. GIVEN VOUCHERS OR DOCUMENTS, THE WORKER RUNS ERRANDS TO DELIVER OR PICK UP MATERIAL. (2 task sheets)
9. GIVEN DELINQUENT AUTO LOANS, THE WORKER COLLECTS THE AMOUNT DUE OR REPOSSESSES THE AUTOMOBILES. (2 task sheets)
10. GIVEN BASIC PLANS, THE WORKER PREPARES DRAWINGS OF BUILDINGS OR ROCKET ENGINES. (2 task sheets)
11. GIVEN INFORMATION ON PROSPECTIVE PRODUCT, THE WORKER DETERMINES THE BEST WAY TO MANUFACTURE THE PRODUCT. (1 task sheet)
12. GIVEN A NEW FRANCHISE DEALER, THE WORKER INSTRUCTS A PART-TIME WORKER TO TYPE AND HANDLE FRANCHISE CONTRACTS. (1 task sheet)
13. GIVEN FINANCIAL RECORDS OVER FIVE YEARS OLD, THE WORKER BOXES AND SEALS DOCUMENTS FOR PERMANENT STORAGE. (1 task sheet)
14. GIVEN NOTIFICATION OF ACCIDENT OR EMERGENCY, THE WORKER CALLS DOCTORS, HOSPITALS, POLICE, FIRE DEPARTMENT, AND INSURANCE CARRIER TO HANDLE EMERGENCIES OR NECESSARY ARRANGEMENTS. (1 task sheet)
15. GIVEN LOST ARTICLES, THE WORKER HOLDS ALL ARTICLES UNTIL CLAIMED. (1 task sheet)

16. GIVEN COMPUTER OUTPUT SHEETS, THE WORKER ESTABLISHES A FORMAT OR STEP PROCESS AS INSTRUCTED. (1 task sheet)
17. GIVEN BLUEPRINTS, THE WORKER PREPARES SPECIFICATION SUMMARIES OF MATERIALS FOR SHOP USE. (1 task sheet)
18. GIVEN JOB DIRECTIONS, THE WORKER AIDS SKILLED WORKERS SUCH AS ELECTRICIANS, PLUMBERS, AND PAINTERS BY FOLLOWING THEIR ORAL INSTRUCTIONS. (1 task sheet)
19. GIVEN PUNCHED TAGS, THE WORKER OPERATES A TAG MACHINE FOR DEPARTMENT STORE MERCHANDISE. (1 task sheet)
20. GIVEN STORE MERCHANDISE, THE WORKER GIFT WRAPS PACKAGES FOR DEPARTMENT STORE CUSTOMERS. (1 task sheet)
21. GIVEN PHONOGRAPH RECORDS, THE WORKER SCREENS RECORDS BY UNPACKING, LISTENING TO, AND SORTING RECORDS. (1 task sheet)
22. GIVEN REQUEST FOR RATES, THE WORKER RECORDS UTILITY RATES FROM A METER BOOK FOR CUSTOMER AND SENDS FIGURES TO BILLING. (1 task sheet)
23. GIVEN ITEMS TO BE TESTED, THE WORKER ASSISTS IN WIND TUNNEL TESTS. (1 task sheet)
24. GIVEN CARBON COPIES OF LABELS, THE WORKER DATE STAMPS, SORTS, AND FILES LABELS. (1 task sheet)

#### MISCELLANEOUS CRITICAL INCIDENTS

"Once the worker painted wrong edges of forms with rubber cement when padding. He had to wait until it dried, scrape the cement off, trim the edges again, and paint the proper edge."

"Recently some pages were omitted by the worker in collating one of the classified documents. Fortunately, the error was caught before the report left our plant so it only resulted in extra work. Had it gone out in that condition, it would have resulted in work being repeated at our expense."

"A report was received for binding late one afternoon. It had to be out the next day. / The worker came in at 6:30 a.m., and he worked on it steadily under constant pressure until 4:30 p.m. The job was complete and correct and we made the deadline."



## Chapter V

### SUMMARY AND RECOMMENDATIONS

#### A. PRODUCTS OF NOBELS

The current phase of NOBELS can be summarized by a listing of its products. The primary product was a set of 375 performance goals representing office occupations. The goals were arranged according to two subsets. The first subset by SIC contained 63 goals from finance, insurance, and real estate--banking and 24 goals from service--medical; the remaining 288 goals were presented according to a business functional classification scheme.

The NOBELS Verbs and Synonyms, a list of 108 verbs used in classifying 32,447 steps of task performance and its successor list of 57 verbs and synonyms were also produced (Chapter III and Appendix E). Tentative findings from the emergent office are appended (Appendix A) and reference has been made to the earlier Taxonomy of Office Activities (Huffman, Brady et al., 1968).

Data collection reports were cited: Calhoun (1970), Erickson (1969), Price and Hopkins (1970), and Tonne (1969). The University of Georgia report is also a source of correlative analyses of interaction critical incidents and of hardware used in office task performance (Calhoun, 1970). The Talent Inventory (Cook et al., 1970) as a technique and a result of collecting and identifying leadership with talents to modify office and business education learnings programs is the last of the current output of NOBELS to be cited.

#### B. RECOMMENDATIONS AND DISCUSSION

In a development project such as NOBELS, the product of a particular phase of development is but a brief introduction to the next phase. As in any operations research, the product of NOBELS is considered as a less than perfect product to be tested and modified in the light of new evidence. The feedback circuitry of NOBELS is inherent for a continuing evaluation and modification. But the key to continuation of NOBELS is one of acceptance of a system approach--acceptance dependent upon advocacy.

We move, therefore, away from the usual role of technical report writer in which conclusions would be drawn about the current products of NOBELS. Rather, we move toward the role of advocate who in his advocacy recognizes the necessity for numerous professional discussions in journals and professional meetings of whether office education should, in fact, embrace in practice a system approach to learning. In this different role, we attempt to assess some of the forces for change toward the behavioral persuasion in office education programs. In this role, we admit a bias

toward embracing the controls inherent in NOBELSystem model, for without possessing such a bias, the current outputs in their present form could not have been produced.

### 1. Curriculum Implementation

The next step of NOBELS is one of selecting from the current inventory of performance goals promising learnings sets to arrange and test programs in classrooms.

#### Discussion

Without further organized attempts at curriculum renewal in office and business education, utilization of NOBELS in modified or new learnings programs will be media developers, state or institutional curriculum groups, and other leaders in teacher education.

Media developers in the past, primarily publishers and textbook authors, have proved willing to develop materials of any description that would be purchased for classroom use. The very nature of their mission, however, causes conservative practices that will not replace the "best seller" textbook by classroom products whose sales have been untested.

Still the current ferment in the education market has created a climate for change. This climate is one in which current media developers, we suspect, are willing to accept modifications toward the reality and the specificity of NOBELS behavioral goals. Without further, organized attempts, then, NOBELS inventory of performance goals can and will influence curriculum renewal in office education through media.

We cannot rule out, of course, the entrepreneur who, assessing the public's impatience of nonmeasured qualities of graduates leaving present public institutional education, may create a new distribution channel of purveying media directly to the consumer. Such an alternative can be a competitive threat only to the present establishment of organized education for office occupations, and not the public at large.

Within the current establishment for office training, the key to utilization of the current NOBELS performance goals depends on pre- and in-service teacher education. As an observation, teacher educators are at present inserting some exposure to a system approach and its encompassed performance goals as a foundation for occupational education. A considerable lag does exist in teacher education from availability to advocacy, to acceptance of the system approach and the now available base of performance goals. More serious, in our view, is this: teacher educators' impact on pre- and in-service teachers will be minimal--i.e., until these teacher educators are willing to invoke the controls of a system approach in their own teacher preparation curriculums.

With a mission determined by Federal and state legislation to improve office education programs, we envision state supervisors of business and office education to be an important leadership group in implementing NOBELS. Their contractual foundation for subsidy of specified local school programs

provides a financial incentive for classroom teachers to change. In-service teacher programs supported by the Vocational Education Act of 1963 as amended are being geared toward changing recognized foibles of traditional curriculum.

Within the current educational scene, the mushrooming community college movement, unfettered by traditional program patterns, may be a force for developing, trying, and testing NOBELS.

Even without further organized attempts, we believe NOBELS will have an influence on modification of current office preparation curriculums.

## 2. Replication and Refinement

Additional and continuous study of office task performance is a necessity for up-to-date curriculum modification.

### Discussion

While claims to a statistically drawn sample were not made, we do admit to a carefully extracted set of current behaviors representing the basic tasks of office occupations surveyed. Refinements in techniques and in-depth study will probably reveal additional perceptions. Differing classifications or modifications of the present schemes can bring refinements.

## 3. "Fundamentals" of Office Task Performance

The three "fundamentals" of office task performance as derived should be inserted immediately in all current instruction leading to office job preparation.

For emphasis, the "fundamentals" are repeated here:

Accuracy as a desired generalized behavior of office workers is a function of checking for potential error and of correcting error. When supervisors so universally say they require "absolute accuracy" as they did in NOBELS' interviews, we must conclude they mean: "An accurate office task performance means perceiving what an accurate product is, identifying likely points of error, checking and correcting so that the product is accurate because the worker has checked and eliminated any potential inaccuracy."

Inadequate communication skills, both oral and written, are a frequent source of unsuccessful office performance. Communication skills adequate to instruct others or to modify office actions are sought by supervisors.

Organizing and classifying of both numerical and verbal data--all symbolic data--are even more necessary behaviors in our emerging electronic technology than ever before.

### Discussion

Perhaps the necessity of emphasizing checking, communication, and computation components of all task performance is obvious. Yet, the evidence collected here cause us to underline the necessity of at least the universal demand of employers for these behaviors in their office employees. The fact that present employees in the NOBELS survey were often criticized for not possessing these fundamental skills is probably strong enough evidence that current learnings programs are not yet good enough.

The number of interaction critical incidents reflecting "thin-skinned," angry workers almost caused us to add a "fundamental" related to social graciousness in dealing with people within and without the business organization. Whether the added educational emphasis of social graciousness takes the form of sensitivity training, of case study in application of the golden rule, or of the more mundane "how to win friends," office workers in our sample displayed weaknesses in interacting with other people.

#### 4. Banking and Medical Sets of Goals

SICs to be included in office preparation curriculum need further study.

### Discussion

Separation of performance goals by standard industrial classification of finance, insurance, and real estate represented by banking and services represented by medical needs further study.

In any curriculum of the future, selection of goals from all SICs in any depth is not feasible. Yet, a movement away from the current limited bookkeeping textbook practice of presenting the retail store or professional office as the limits of business practice provides too limited a view of business enterprise. Increased scope of types of businesses plus emphasis of the skills of "learning to learn" would seem to be a needed direction.

In the meantime, banking as an SIC studied here, does provide performances in which the fundamental of checking and accuracy and numerical data handling is prerequisite to successful completion. Banking performances also provide a student with a different view of money and credit not available in other enterprise relations with a bank--that of the seller of banking services.

Likewise, in a service SIC such as medical care, successful performances seem to be judged by a pervading attitude of "tender, loving care" of distraught patients. Such an attitude learned through learning to perform medical tasks appears promising toward teaching empathic interaction behavior, a prerequisite to social graciousness.

#### 5. Professional Judgments in Developing Sets of Office Learnings

Many professional decisions must be made to develop modified sets of office tasks leading to efficient office learning programs.



### Discussion

Through Chapters III and IV, hunches about curriculum patterns were identified as evidence suggested them. The need for further study of defensible means of arranging sets of learnings in a curriculum program is obvious. In the meantime, it would be premature to assume a set of learnings to be transplanted office tasks performed under simulated office conditions. We admit that the assumption might provide improvement over the present sterility of textbook-lecture teaching. Still, not enough is known about the learner or the different kinds of learners who can profit from selected sets of office performance goals. Also, not enough is known about the conditions of learning, let alone a strategy of instruction, to bring about efficient performance in learners.

#### C. CONCLUDING REMARK

Public policy is committed to the strengthening and changing of public education more nearly to produce educational products that are assessable. We have reason to believe that public agencies will continue to implement changed direction in education through funds to support development projects such as NOBELS. The current authors, collectively and individually, have a professional commitment to propose further phases of NOBELS to funding agencies. Yet we have no proprietary rights to any funds currently or to be made available. We urge, therefore, all those researchers and developers who envision a next phase of NOBELS development to propose and to seek funds for continuing the renewal of office and business education curriculums, the foundation of which is contained in our current outputs.

#### REFERENCES

- American Institutes for Research. Development and Evaluation of an Experimental Curriculum for the New Quincy (Mass.) Vocational-Technical School, USOE No. 5-0009.
- Bloom, Benjamin S. et al. Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook I: Cognitive Domain. New York: David McKay Company, Inc., 1956.
- Brown, Francis J. Final Outcome Analysis to Compare the Effectiveness of an Experimental Business Education System to Prepare Students to Secure Entry Jobs in Office and Retail Occupations (EdD dissertation). Detroit, Michigan: Wayne State University, 1968.
- Bruner, Jerome S. Toward a Theory of Instruction. New York: W. W. Norton and Co., Inc., 1968.
- Calhoun, Calfrey C. et al. Development of Performance Goals for a New Office and Business Education Learnings System, Final Report, Project 91E, OEG-8-08414, 1970.
- Canfield, Albert A. et al. An Instructional Systems Approach; Studying to Learn and Remember (and) Instructional Activities and Their Purpose. Royal Oak, Michigan: Educational Systems Development Division, Howard and Smith, Inc., 1967.
- Cook, Fred S. and Frank W. Lanham. Opportunities and Requirements for Initial Employment of School Leavers with Emphasis on Office and Retail Jobs, Cooperative Research Project No. 2378. Detroit, Michigan: Wayne State University, 1966.
- Cook, Fred S., F. W. Lanham, and R. Schwartz. Talent Inventory for New Office and Business Education Learnings System, Final Report, Project No. 91-B of OEG 8-08414-3773 (085). Detroit, Michigan: Department of Business and Distributive Education, Wayne State University, 1970.
- Crawford, Lucy C. A Competence Pattern Approach to Curriculum Instruction in Distributive Education, Vol. V. Final Report, Research Project USOE Grant No. OE-6-85-044, 1969.
- Christal, Raymond E. "Inputs to Vocational-Technical Education from Occupational Research"--paper presented at APGA Convention, Las Vegas, Nevada, April 2, 1969.
- ES '70 News. New York 10017: E. F. Shelley and Company, 866 United Nations Plaza, 1968 (for more current information about ES '70, write Eliot G. Spack, Acting Executive Secretary, 200 Emory Road, Mineola, New York 11501).

- Erickson, Lawrence W. New Office and Business Education Learnings Systems, Final Report, Project No. 91-D, OEG 8-08414. Los Angeles: UCLA Graduate School of Education, 1969.
- Flanagan, J. C. "The Critical Incident Technique," Psychology Bulletin, 51 (1954), 327-58.
- Gagne, Robert M. The Conditions of Learning. New York: Holt, Rinehart, and Winston, Inc., 1965.
- Fine, Sidney A. "A Systems Approach to Manpower Development in Human Services," A Systems Approach to New Careers: Two Papers. Kalamazoo, Michigan (49007): Upjohn Institute for Employment Research, 1969.
- Haines, Peter G. and Brendon Coleman. "State Plans for Vocational Office Occupations" in National Business Education Association Yearbook No. 4. Washington, D.C.: The Association, 1966.
- Hill, Joseph E. and August Kerber. Models, Methods, and Analytical Procedures in Education Research. Detroit, Michigan: Wayne State University Press, 1967.
- Huffman, Harry, Mary Margaret Brady et al. A Taxonomy of Office Activities for Business and Office Education. Columbus, Ohio: The Center for Research and Leadership Development in Vocational and Technical Education, Ohio State University, 1968.
- Huffman, Harry and Dale D. Gist. "Emergent Office Project, Abstract, NOBELS Part 91A" (duplicated in file of author), 1970.
- Krathwohl, David R. et al. Taxonomy of Educational Objectives: the Classification of Educational Goals. Handbook II: Affective Domain. New York: David McKay Company, Inc., 1956.
- Lanham, Frank W. (Editor). Business Education Meets the Challenges of Change, National Business Education Association Yearbook No. 4. Washington, D.C.: The Association, 1966.
- \_\_\_\_\_. Development of Performance Goals for a New Office and Business Education Learnings System (NOBELS), USOE Proposal No. 8-0414. Columbus, Ohio: Center for Research and Leadership Development in Vocational and Technical Education, Ohio State University, 1967.
- \_\_\_\_\_. A Planning Study to Determine the Feasibility of Developing a New Business and Office Education Curriculum, Moonshot--an Office Occupation Curriculum, Final Report, Project No. 7-1223. Columbus, Ohio: Center for Research and Leadership Development in Vocational and Technical Education, 1968. EDRS ED 023 894.
- Lanham, Frank W. and Fred S. Cook. "Senior Intensified Program Pattern" in National Business Education Association Yearbook No. 8. Washington, D.C.: The Association (in press to April, 1970).

- 4 9  
Lanham, Frank W. and John M. Trytton, Review and Synthesis of Research in Business and Office Education. Columbus, Ohio: Center for Research and Leadership Development in Vocational and Technical Education, Ohio State University, 1966. EDRS, ED 011 566.
- Lanham, Frank W. and Cathryn P. Weber, "NOBELS Action Verbs and Synonyms," Parts 1 and 2, Journal of Business Education, (in press to April and May, 1970).
- Mager, Robert F. Preparing Objectives for Instruction. San Francisco: Fearon Publishers, 1961.
- McBeth, John. A Study of a Block-Time Schedule for Teaching Vocational Office Practice, Final Report, Project 201. East Lansing: Michigan State University (EDRS ED 016 830), 1967.
- McCloskey, Gordon. Knowledge and Skills Required for Clusters or Families of Occupations. Pullman: Washington State University, USOE EDRS No. 257-65, 1967.
- Morgan, Robert and David S. Bushnell, "Designing an Organic Curriculum," National Business Education Quarterly, 35 (Spring 1967), 5-14.
- Morrison, E. J. The Problem of Defining Objectives. Pittsburgh: American Institutes for Research, 1965.
- Morrison, E. J. and R. M. Gagne. Curriculum Implications of the Study of Objectives. Pittsburgh: American Institutes for Research, 1965.
- Perkins, Edward A. Clusters of Tasks Associated with Performance of Major Types of Office Work. USOE Project No. 7-0031, EDRS ED 018 665, 1968.
- Perkins, Jr., Edward R. and F. Ross Boyd, A Research Model for Identification of Task and Knowledge Clusters Associated with Performance of Major Types of Office Employees Work. Pullman: Washington State University, 1966.
- Popham, W. J. (filmstrips and tapes including "Educational Objectives," "Perceived Purpose," "Establishing Performance Standards," etc.) Los Angeles, Box 24714: Vimcet Associates, 1967.
- Price, Ray G. and Charles R. Hopkins. New Office and Business Education Learnings System, Final Report, Project 91F, OEG 8-08414. Minneapolis: University of Minnesota, 1970.
- Silvern, Leonard C. Systems Engineering of Education I: the Evolution of Systems Thinking in Education. Los Angeles: Education and Training Consultants Co., 1965.
- . Systems Analysis and Synthesis Applied to Occupational Instruction in Secondary Schools. Los Angeles: Education and Training Consultants Co., 1967.



- Simpson, Elisabeth J. The Classification of Educational Objectives, Psychomotor Domain. Urbana: University of Illinois, 1966. BR 5-0090, EDRS 251-65, OEG 5-85-104.
- Tonne, Herbert A. New Office and Business Education Learning Systems, Final Report, Project 91-G, OEG 8-08414. Albany, N.Y.: Research Foundation of the State of New York, 1969. 7
- Tuckman, Bruce W. A Study of Curriculums for Occupational Preparation and Education (SCOPE), A Progress Report. New Brunswick, New Jersey: Rutgers University, September, 1969.
- \_\_\_\_\_. A Systems Model for Instructional Design and Management, Incidental Report No. 3. New Brunswick, N.J.: Rutgers University, 1970a.
- \_\_\_\_\_. A Study of Curriculums for Occupational Preparation and Education (SCOPE Program: Phase I), Progress Report No. 6. New Brunswick, N.J.: Rutgers University, 1970b.
- U.S. Bureau of Labor Statistics Handbook of Labor Statistics, Bulletin No. 1630. Washington, D.C.: U.S. Government Printing Office, 1969a.
- U.S. Bureau of Labor Statistics. The National Industry-Occupational Matrix and Other Manpower Data Vols. 1-4, Tomorrow's Manpower Needs, Bulletin No. 1606. Washington, D.C.: U. S. Government Printing Office, 1969b.
- U.S. Bureau of the Census. Current Population Reports, Series P-25, 1966.
- U.S. Bureau of the Census. Census of Population, Vol. 1, Part 1, 1960.
- U.S. Naval Academy. Plan of Action to Be Followed by Contractors in Developing Each of Four Proposed Multi-media Courses of Instruction for the U.S. Naval Academy, No. N00161-67-0058, 1967.
- U.S. Office of Education. Vocational Education and Occupations, OE No. 80061. Washington, D.C.: U. S. Government Printing Office, 1969.

APPENDIXES

APPENDIX A

TABLE 50. FIRST SEQUENCE OF NINE HIGH-PRIORITY ABILITIES PROPOSED FOR PREPARATION OF OFFICE PERSONNEL.

	Ability Common to This Level of Personnel			
	Management	Supervisory	Clerical	Professional Tech.
<b>High-Priority Emerging Ability</b>				
A1--Ability to comprehend and conceptualize the system of the organization or unit as a vast network or information flow and to understand as an employee one's position in the operation of the system.				
B2--Ability to adjust quickly to new equipment, procedures, and work sequences brought about by rapid technological changes for the purpose of updating skills, increasing individual productive capacity, and raising company output.	x	x	x	x
B4--Ability to perform adequately in one system, switch to another system and perform adequately, and then switch back and perform adequately again. (Total job flexibility)	x	x	x	x
C3--Ability to recognize how inaccurate data entering a system may affect outcomes on succeeding jobs.	x	x	x	x
D1--Ability to gain rapport with all racial groups.	x	x	x	x
E2--Ability to communicate via data communication devices and to know the limitations, methods of utilization, and choose from available equipment for particular operations.	x	x	x	x
G2--Ability to input data in an on-line real-time system to obtain information for report preparation, office work production, and exception reporting.	x	x	x	x
G3--Ability to review information systems output to determine if there are errors.	x	x	x	x
G4--Ability to determine what happened to produce the results in an information system and to provide corrections of data, if needed.	x	x	x	x

APPENDIX A

TABLE 51. SECOND SEQUENCE OF TWENTY-ONE HIGH-PRIORITY ABILITIES PROPOSED FOR PREPARATION OF OFFICE PERSONNEL.

	Ability Common to This Level of Personnel				
	Management	Supervisory	Clerical	Prof.-Tech.	
High-Priority Emerging Ability					
G6--Ability to utilize contemporary record storage techniques including microfilm, microfiche, aperture cards, etc., including indexing and operating the system.		X	X		X
H1--Ability to operate various pieces of new equipment through self-instruction or in-service training. (MTST, Electronic Calculator, ATS, etc.)		X	X		X
H2--Ability to operate various computer data manipulation devices. (Input, Output, Storage, and Retrieval)		X	X		X
H3--Ability to operate microfilm and microfiche equipment.		X	X		X
I3--Ability to convert data to appropriate coding schemes.		X	X		X
I4--Ability to assemble and arrange input data for processing.		X	X		X
II1--Ability to write and execute information systems programs.		X	X		X
C1--Ability to analyze the needs, attitudes, motivations, and actions of others to facilitate the desired outcomes.	X				X
C2--Ability to interface between management and informational systems personnel.	X				X
E1--Ability to summarize output from information systems for the purpose of presenting management with concise reports.	X				X
E3--Ability to interpret and communicate the findings resulting from research studies.	X				X
F1--Ability to identify and select among a number of alternate combinations of equipment, procedures, and people for that combination which best accomplishes a certain established objective, purpose, or goal according to certain criteria.		X			X
F2--Ability to identify information needed by management for decision-making purposes.	X	X			X



APPENDIX A

TABLE 51 (continued)

	Ability Common to This Level of Personnel			
	Management	Supervisory	Clerical	Professional-Tech.
<b>High-Priority Emerging Ability</b>				
F3--Ability to formulate plans for collection, processing, storage, and retrieval of information to meet the needs of the organization.	X	X		X
F4--Ability to contribute to or conduct a feasibility study.	X	X		X
F5--Ability to contribute to or conduct cost effectiveness studies.	X	X		X
F6--Ability to ascertain what information should be programmed into an integrated information system.	X	X		X
F7--Ability to formulate standards, to measure performance, and to implement control activities, comparing results with expectations and reporting exceptions.	X	X		X
G1--Ability to construct basic flowcharts for projects, systems, or subsystems for purposes of planning, analyzing, implementing, controlling, and budgeting.	X	X		X
H4--Ability to ascertain and analyze the capabilities and functions of copying machines, data reproduction equipment, and data display terminals.	X	X		X
I2--Ability to locate information systems services and to select those that are appropriate.	X	X		X

## NOBELS' INTERVIEW FORM

## A. INFORMATION ABOUT COMPANY

1. COMPANY CONTACT PERSON/TITLE \_\_\_\_\_

Department \_\_\_\_\_ Telephone No. \_\_\_\_\_ Ext. \_\_\_\_\_

Address \_\_\_\_\_  
(Number) (Street)

\_\_\_\_\_ (City) (County) (State) (Zip)

Wants summary of study? Yes \_\_\_\_\_ No \_\_\_\_\_

2. COMPANY \_\_\_\_\_

Employing Unit - that is, the name of unit at this geographical site where this interview is held (e.g., name of plant or division) \_\_\_\_\_

3. SIZE - Check total number of all employees in above unit at this site: +100 \_\_\_\_\_ -100 \_\_\_\_\_

4. STANDARD METROPOLITAN STATISTICAL AREA \_\_\_\_\_

5. STANDARD INDUSTRIAL CLASSIFICATION OF COMPANY AT THIS GEOGRAPHICAL SITE (Check one)

- |  |                                   |
|--|-----------------------------------|
| ( 1) _____ Finance, Insurance,<br>Real Estate        | ( 7) _____ Wholesale/Retail Trade |
| ( 2) _____ Manufacturing                             | ( 8) _____ Federal, Education     |
| ( 3) _____ Service                                   | ( 9) _____ Federal, Noneducation  |
| ( 4) _____ Other-Agriculture/<br>Mining/Construction | (10) _____ State, Education       |
| ( 5) _____ Transportation                            | (11) _____ State, Noneducation    |
| ( 6) _____ Communication and<br>Utilities            | (12) _____ Local, Education       |
|  | (13) _____ Local, Noneducation    |

INTERVIEWER: YOU MAY WANT TO DESCRIBE NOBELS IN WORDS SIMILAR TO THE FOLLOWING TO THE COMPANY CONTACT AND/OR THE SUPERVISOR YOU INTERVIEW:

"IN NOBELS, NEW OFFICE AND BUSINESS EDUCATION LEARNINGS SYSTEM, WE ARE STUDYING THE TASKS THAT OFFICE WORKERS PERFORM IN THEIR JOBS. IN ORDER TO REVISE SCHOOL CURRICULUMS, WE NEED TO KNOW WHAT OFFICE WORKERS ACTUALLY DO AND WHAT MAKES THEM EFFECTIVE OR INEFFECTIVE."

"THESE FORMS ARE BEING CODED IN SUCH A WAY THAT THE INFORMATION YOU GIVE US CANNOT BE IDENTIFIED BY OTHERS IN YOUR COMPANY AND LATER CANNOT BE IDENTIFIED BY SPECIFIC COMPANY OR WORKERS."

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Interviewer \_\_\_\_\_

**B. INFORMATION FROM SUPERVISOR**

6. SUPERVISOR NAME/TITLE \_\_\_\_\_

Department \_\_\_\_\_ Telephone No. \_\_\_\_\_ Ext. \_\_\_\_\_

Address (if different from above) \_\_\_\_\_

"SINCE YOU ARE THE SUPERVISOR OF A (JOB TITLE OF EMPLOYEE) WE FEEL YOU ARE ESPECIALLY WELL QUALIFIED TO TELL US ABOUT THE BASIC TASKS OF THE (JOB TITLE OF EMPLOYEE). DO YOU HAVE A WRITTEN JOB DESCRIPTION OF (EMPLOYEE'S) JOB?" IF YES, "MAY I HAVE A COPY?"

7. "BASIC TASKS CONSTITUTE THE CENTRAL PURPOSE OF THE JOB. THESE TASKS WOULD INCLUDE THE MOST DIFFICULT TASKS, THE MOST TIME CONSUMING TASKS, AND THE TASKS REQUIRING THE MOST RESPONSIBILITY ON THE PART OF THE WORKER."

	A. Consequences	B. Changing	C. Frequency	D. % Time Spent	E. Rank Tasks
1.					
2.					
3.					
4.					
5.					
6.					

**DIRECTIONS:**

- ASK AND WRITE BASIC TASK NO. 1.
- ASK AND WRITE A FOR BASIC TASK NO. 1.
- PROCEED TO ASK AND WRITE FOR REMAINING TASKS AS OUTLINED IN 1 AND 2.
- WHEN ALL TASKS AND A ARE FILLED IN, ASK INTERVIEWEE (REPEATING TASKS) B FOR ALL TASKS (NOTING AT BOTTOM IF "YES"), C FOR ALL TASKS, THEN D FOR ALL TASKS, AND FINALLY E--RANKING TASKS 1-6 BY DIFFICULTY.

**INDICATE UNDERLINED CHOICE IN SQUARES:**

- A. GREAT 1 MODERATE 2 LITTLE 3
- B. YES 1 NO 2
- C. HIGH 1 MEDIUM 2 LOW 3
- D. % FIGURE OF EMPLOYEE'S TOTAL TIME
- E. MOST DIFFICULT 1, NEXT MOST DIFFICULT 2, ETC.

Task No. \_\_\_\_\_ B. How changing? \_\_\_\_\_

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Interviewer

"THE NEXT FOUR QUESTIONS ASK FOR SPECIFIC INCIDENTS IN WHICH THIS EMPLOYEE HAS TAKEN PART ON HIS JOB. BY GETTING EACH OF THE PROSPECTIVE 1000 SUPERVISORS TO CITE SPECIFIC INCIDENTS FOR EACH OF THE FOUR QUESTIONS, WE WILL HAVE A LIST OF ACTUAL JOB HAPPENINGS TO USE AS CRITERIA IN EVALUATING PERFORMANCE."

"THE FIRST TWO QUESTIONS RELATE TO JOB PERFORMANCE OF A SPECIFIC BASIC TASK, AND THE NEXT TWO RELATE TO THE CONTACT HE HAS WITH OTHER PEOPLE IN HIS JOB."

8. "REGARDING JOB PERFORMANCE OF A BASIC TASK, WOULD YOU CITE A SPECIFIC INCIDENT WHEN THIS EMPLOYEE WAS PARTICULARLY EFFECTIVE IN PERFORMING THIS TASK?" (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT. PROBE FOR "WHY" EFFECTIVE.) (RELATES TO TASK NO. \_\_\_\_.)
  
9. "IN THE WORKER'S TASK OF (RECALL FROM TASK LIST), YOU MENTION THAT AN ERROR COULD CAUSE (CHOOSE ONE WITH GREAT OR MODERATE) CONSEQUENCES. WOULD YOU CITE AN EXAMPLE WHEN THIS EMPLOYEE'S PERFORMANCE WAS A LITTLE LESS THAN PERFECT." (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT. PROBE FOR "WHY" ERROR WAS MADE.) (RELATES TO TASK NO. \_\_\_\_.)
  
10. "SINCE ASSUMING THIS JOB, THERE MUST HAVE BEEN TIMES WHEN THIS EMPLOYEE DID AN OUTSTANDING JOB OF WORKING WITH SOMEONE ELSE OR IN HANDLING A SITUATION WITH A CUSTOMER OR CLIENT EITHER FACE TO FACE OR ON THE PHONE. WOULD YOU CITE AN EXAMPLE AND TELL ME IN WHAT WAY THIS EMPLOYEE HANDLED THE SITUATION EFFECTIVELY?" (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT. PROBE FOR "WHY" SUCCESSFUL.)
  
11. "NOW WOULD YOU GIVE ME AN INCIDENT WHEN THIS EMPLOYEE WAS A BIT LESS THAN 100 PERCENT EFFECTIVE IN HIS CONTACT WITH OTHER BUSINESS PEOPLE--EITHER IN THE OFFICE OR WITH YOUR BUSINESS CONTACTS?" (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT. PROBE FOR "WHY" LESS THAN EFFECTIVE.)



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\_\_\_\_\_  
Interviewer

### C. INFORMATION FROM EMPLOYEE

"IN NOBELS, NEW OFFICE AND BUSINESS EDUCATION LEARNINGS SYSTEM, WE ARE STUDYING THE TASKS THAT YOU AND ALL OTHER OFFICE WORKERS PERFORM IN YOUR JOBS. TO REVISE SCHOOL CURRICULUMS, WE NEED FIRSTHAND INFORMATION ABOUT YOUR BASIC DUTIES AND HOW YOU PERFORM THEM."

"THESE FORMS ARE BEING CODED IN SUCH A WAY THAT THE INFORMATION YOU GIVE US CANNOT BE IDENTIFIED BY OTHERS IN YOUR COMPANY AND LATER CANNOT BE IDENTIFIED BY SPECIFIC COMPANY OR WORKERS."

12. NAME OF EMPLOYEE \_\_\_\_\_  
(Last) (First) (Middle Initial)
13. EMPLOYEE TELEPHONE - AREA CODE \_\_\_\_\_ NO. \_\_\_\_\_ EXT. \_\_\_\_\_
14. HOW LONG HAVE YOU BEEN EMPLOYED BY THIS COMPANY? \_\_\_\_\_
15. WHAT IS YOUR PRESENT JOB TITLE? \_\_\_\_\_
16. HOW LONG HAVE YOU BEEN IN YOUR PRESENT JOB? \_\_\_\_\_
17. WHAT WAS THE TITLE OF YOUR PREVIOUS JOB (if any)? \_\_\_\_\_
18. HOW LONG WERE YOU IN YOUR PREVIOUS JOB? \_\_\_\_\_
19. WHAT WOULD YOUR NEXT JOB BE IN LINE OF A PROMOTION? \_\_\_\_\_
20. WHEN MIGHT THIS PROMOTION OCCUR? \_\_\_\_\_
- (Circle appropriate answers in 21, 22, 23, and 24.)
21. SEX OF EMPLOYEE: M F
22. AGE: 16 17 18 19 20 21 22 23 24
23. HIGHEST SCHOOL GRADE COMPLETED: K-8 9 10 11 12 13 14 15 16+
24. BACHELOR'S DEGREE: YES NO

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Interviewer \_\_\_\_\_

25. "IN THIS PROJECT WE ARE CONCERNED WITH THE BASIC TASKS WHICH CONSTITUTE THE CENTRAL PURPOSE OF YOUR JOB. THESE BASIC TASKS WOULD INCLUDE THE MOST DIFFICULT TASKS, THE MOST TIME CONSUMING TASKS, AND THE TASKS REQUIRING THE MOST RESPONSIBILITY ON YOUR PART."

A. Consequences  
 B. Changing  
 C. Frequency  
 D. % Time Spent  
 E. Rank Tasks

	A	B	C	D	E
1.					
2.					
3.					
4.					
5.					
6.					

**DIRECTIONS:**

1. ASK AND WRITE BASIC TASK NO. 1.
2. ASK AND WRITE A FOR BASIC TASK NO. 1.
3. PROCEED TO ASK AND WRITE FOR REMAINING TASKS AS OUTLINED IN 1 AND 2.
4. WHEN ALL TASKS AND A ARE FILLED IN, ASK INTERVIEWEE (REPEATING TASKS) B FOR ALL TASKS (NOTING AT BOTTOM IF "YES"), C FOR ALL TASKS, THEN D FOR ALL TASKS, AND FINALLY E--RANKING TASKS 1-6 BY DIFFICULTY.

**INDICATE UNDERLINED CHOICE IN SQUARES:**

- A. GREAT 1 MODERATE 2 LITTLE 3
- B. YES 1 NO 2
- C. HIGH 1 MEDIUM 2 LOW 3
- D. % FIGURE OF EMPLOYEE'S TOTAL TIME
- E. MOST DIFFICULT 1, NEXT MOST DIFFICULT 2, ETC.

Task No.      B. How Changing? \_\_\_\_\_

Basic Task No. (as indicated  
by employee and/or supervisor)

307

Page 6

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Interviewer

E \_\_\_\_\_ S \_\_\_\_\_

### TASK DATA FOR PERFORMANCE GOAL WRITING

SUMMARY--TASK  
BACKGROUND:

TASK:

(STEPS):

CONTINGENCIES OR  
ALTERNATIVES:

CRITERIA:

INTERVIEWER: TO WRITE FINAL DATA SHEET FOR PERFORMANCE GOAL, YOU WILL NEED ANSWERS TO THE FOLLOWING QUESTIONS: (RESTATE TASKS FROM PAGE 4--IF NECESSARY FROM PAGE 2--TO WRITE UP THE SIX--MAXIMUM-- PERFORMANCE STATEMENTS.)

1. (LISTED AS YOUR FIRST STEP) HOW DO YOU KNOW WHEN THIS TASK IS TO BE PERFORMED? (CUES AND SOURCE)
2. WHAT DOES THE EMPLOYEE DO IN PERFORMING THIS TASK?
3. WHAT TOOLS (EQUIPMENT), SPECIAL SUPPLIES, OR REFERENCE MATERIALS ARE NECESSARY FOR PERFORMING THIS TASK?
4. (LISTED AS YOUR FINAL STEP) HOW DO YOU KNOW WHEN YOU HAVE COMPLETED THE TASK?
5. WHAT KINDS AND LEVELS OF SPECIAL SKILLS ARE REQUIRED FOR THIS TASK?
6. WHAT ARE THE STANDARDS (OR CRITERIA) NECESSARY FOR SUCCESSFUL COMPLETION?
7. SPECIAL REQUIREMENTS FOR PERFORMANCE: DECISION MAKING? TECHNICAL VOCABULARY? PRESSURES (COPING)? CONSEQUENCES OF NOT PERFORMING SATISFACTORILY?

APPENDIX C

NEW OFFICE AND BUSINESS EDUCATION  
LEARNINGS SYSTEM (NOBELS)

I N S T R U C T I O N S

FOR COLLECTING DATA  
AND WRITING PERFORMANCE STATEMENTS

June 1969



## I N S T R U C T I O N S

CODING IN BOXES IN UPPER RIGHT-HAND CORNER OF EACH PAGE OF FORM:



- |   |  |
|---|--|
| <p>1 UCLA-West<br/>2 University of Minn.-North<br/>3 University of Georgia-South<br/>4 State U. of N.Y.-East<br/>5 Wayne State University</p> | <p>It is suggested that one person in each area be designated to keep a master list of all interviews scheduled. He would then assign each interview a new no. to be coded right to left in the 3 boxes above.</p> |
|---|--|

e.g., the first interview at UCLA      

1	0	0	1
---	---	---	---

the first interview at N.Y.      

4	0	0	1
---	---	---	---

the 25th interview at Ga.      

3	0	2	5
---	---	---	---

the 52nd interview at Minn.      

2	0	5	2
---	---	---	---

Code each page of Interview Form with all 4 code numbers as soon as interview number is assigned.

The fifth box 

--	--	--	--	--

 on the "Task Data for Performance Goal Writing" sheet (page 6) is to be numbered 1 to as many as 6 to correspond numerically with the number of the performance statement written. This number is not the basic task number (top left-hand corner--page 6), but the actual number (not to exceed six per case) of the performance statement written from all accumulated raw data.

e.g., Suppose the first interview has been completed in the New York area. The code for this interview is, following the above, 4001. Now suppose that the interviewer has accumulated 4 basic task statements from the supervisor and/or employee, the interviewer would then type (a copy of page 6) for the first task statement coding it 4001-1, the second task statement on another copy of page 6 coding it 4001-2, etc.

During the interview, the N.Y. interviewer may actually have filled out as many as 6 page 6's and numbered them 1-6, but in typing the final data decides he has only 4 task statements (the other 2 fitting into the 4 he finally submits). The interviewer would then submit 4 page 6's numbering them: 4001-1, 4001-2, 4001-3, and 4001-4.

After the interviewer fills in the area no., interview no., and task statement no., he then fills in his name on each sheet.



The interviewer is now ready to begin his interview.

**PART A INFORMATION ABOUT COMPANY--Page 1**

1. COMPANY CONTACT PERSON/TITLE e.g., Mrs. Lydia Rawlins, Manager  
 Department Personnel Telephone No. 313-6294 Ext. 596  
 Address 1035 Peachtree Street  
 (Number) (Street)  
Atlanta Dekalb Georgia 30083  
 (City) (County) (State) (Zip)

Wants summary of study? Yes X No       

Fill in each blank as each is significant, e.g., the county aids us in determining the Standard Metropolitan Statistical area although what the interviewer writes under the Standard Metropolitan Statistical area is the actual city in which he interviews...by code.

The company contact person is the person who arranges for interviews within the company--usually someone in Personnel. The NOBELS person who arranges the interview is responsible for filling in this section as illustrated above. (The summary will be sent after the study is completed this year.)

2. COMPANY e.g., Coca Cola Company (the mother company)

Employing Unit - that is, the name of unit at this geographical site where this interview is held  
 (e.g., name of plant or division) Coca Cola Bottling Division

3. SIZE - Check total number of all employees in above unit at this site: +100 X -100       

According to the NOBELS proposal, page 29 no. 4, "Four-fifths of the data will be collected from firms employing 100 or more workers..." Therefore, 4 out of 5 companies chosen must employ +100 workers. Each area project director will be assigned a quota of companies of 100+ and 100- employees in which interviews will be scheduled.

Other specifications for interviews include (from Detroit-Metro Guidelines 6 and 7): "6. Within a department of a company, not more than one person in the same job classification will be selected. 7. Not more than seven workers will be selected from any one company. Not more than two of the workers can be in the same job classification."

4. STANDARD METROPOLITAN STATISTICAL AREA e.g., 1A8

(The 1A8 code was taken from the SMSA codes for the four areas-- listed below in this set of instructions.)

According to the NOBELS proposal, page 29, no. 4, "Approximately seven-ninths of all field data will be collected from standard metropolitan statistical areas of 100,000 or more population..." The standard metropolitan statistical areas for the 4 immediate areas surrounding L.A., Minneapolis, Athens, and Albany are:

<u>Area</u>	<u>SMSA Code</u>	<u>Actual Area</u>
L.A.	1A7	Anaheim, Santa Ana, Garden Grove
	1A9	Bakersfield
	1A42	Fresno
	2A1	L.A.-Long Beach
	2A29	Sacramento
	2A33	San Bernadino, Riverside, Ontario
	2A34	San Diego
	2A35	San Francisco-Oakland
	2A36	San Jose
	2B36	Salinas-Monterey
	2B38	Santa Barbara
	2B49	Stockton
	2B56	Vallejo-Napa
Minneapolis	1A36	Duluth, Minn.-Superior, Wisc.
	2A6	Minneapolis-St. Paul, Minn.
Athens	1A8	Atlanta, Ga.
	1A23	Chattanooga, Tenn.
	1A58	Knoxville, Tenn.
	2A8	Nashville, Tenn.
	1B11	Augusta, Ga.
	1B24	Columbus, Ga.
	1B62	Macon, Ga.
2B39	Savannah, Ga.	
Albany	1A4	Albany, Schenectady, Troy, N.Y.
	1A12	Binghamton, N.Y.
	1A15	Boston, Mass.
	2A12	New York, N.Y.
	2A43	Syracuse, N.Y.
2A50	Utica-Rome, N.Y.	

We would encourage you to conduct your interviews in other metropolitan areas within limitations of budget. If you do interview in areas other than those listed, just write in the name of the city or cities remembering that they must have more than 100,000 population. If you are in doubt as to whether a particular city qualifies, write us and we will let you know.

5. STANDARD INDUSTRIAL CLASSIFICATION OF COMPANY AT THIS GEOGRAPHICAL SITE (Check one)

- |       |       |   |        |                              |
|-------|-------|---|--------|------------------------------|
| e.g., | ( 1 ) | _____ Finance, Insurance,<br>Real Estate        | ( 7 )  | _____ Wholesale/Retail Trade |
|       | ( 2 ) | <u>X</u> Manufacturing                          | ( 8 )  | _____ Federal, Education     |
|       | ( 3 ) | _____ Service                                   | ( 9 )  | _____ Federal, Noneducation  |
|       | ( 4 ) | _____ Other-Agriculture/<br>Mining/Construction | ( 10 ) | _____ State, Education       |
|       | ( 5 ) | _____ Transportation                            | ( 11 ) | _____ State, Noneducation    |
|       | ( 6 ) | _____ Communication and<br>Utilities            | ( 12 ) | _____ Local, Education       |
|       |       |   | ( 13 ) | _____ Local, Noneducation    |

Check the classification into which the geographical unit of this company falls and not the particular department in which you are interviewing. If you were interviewing at the central switchboard of the Buick Motor Division of General Motors Corporation, you would check "Manufacturing" and not "Communication and Utilities."

INTERVIEWER: YOU MAY WANT TO DESCRIBE NOBELS IN WORDS SIMILAR TO THE FOLLOWING TO THE COMPANY CONTACT AND/OR THE SUPERVISOR YOU INTERVIEW:

"IN NOBELS, NEW OFFICE AND BUSINESS EDUCATION LEARNINGS SYSTEM, WE ARE STUDYING THE TASKS THAT OFFICE WORKERS PERFORM IN THEIR JOBS. IN ORDER TO REVISE SCHOOL CURRICULUMS, WE NEED TO KNOW WHAT OFFICE WORKERS ACTUALLY DO AND WHAT MAKES THEM EFFECTIVE OR INEFFECTIVE."

"THESE FORMS ARE BEING CODED IN SUCH A WAY THAT THE INFORMATION YOU GIVE US CANNOT BE IDENTIFIED BY OTHERS IN YOUR COMPANY AND LATER CANNOT BE IDENTIFIED BY SPECIFIC COMPANY OR WORKERS."

Memorize the above paragraphs and the similar introduction to the employee on page 4 of the NOBELS form for use in introducing NOBELS to anyone you interview. All items in microtype on NOBELS form (in manifold type here in instructions) are either instructions to aid the interviewer or wording to be memorized by the interviewer before his first interview. Facility in recalling the exact wording of the questions is imperative to a smooth interview.



PART B INFORMATION FROM SUPERVISOR--Page 2

6. SUPERVISOR NAME/TITLE e.g., William Jones, Supervisor  
 Department Sales Telephone No. 343-6294 Ext. 601  
 Address (if different from above) 101 S. Peachtree, Atlanta

The interviewer will speak with both the supervisor and the employee. The NOBELS interview Form has been set up so that the supervisor will be interviewed first and following him the employee. (Also, from the Detroit-Metro Guidelines, "1. Because of absenteeism, have a back-up person selected to be interviewed.")

Upon entering the supervisor's office, the interviewer will verify the information in no. 6 if already filled in or fill in the blanks by asking the supervisor for the information.

The interviewer should memorize the following paragraph and know the job title of the employee well enough so he can insert it in the proper places without hesitating.

"SINCE YOU ARE THE SUPERVISOR OF A (JOB TITLE OF EMPLOYEE) WE FEEL YOU ARE ESPECIALLY WELL QUALIFIED TO TELL US ABOUT THE BASIC TASKS OF THE (JOB TITLE OF EMPLOYEE). DO YOU HAVE A WRITTEN JOB DESCRIPTION OF (EMPLOYEE'S) JOB?" IF YES, "MAY I HAVE A COPY?"

The Detroit-Metro Guidelines state, "8. Data collectors are urged to support interview data with job descriptions, work samples, and forms as an aid for preparing performance goal data."

If the supervisor gives the interviewer a job description sheet, it is suggested the interviewer preface the basic task introduction in no. 7 with, "Using this job description sheet as it applies to this particular job, let's discuss this employee's basic tasks..."

7. "BASIC TASKS CONSTITUTE THE CENTRAL PURPOSE OF THE JOB. THESE TASKS WOULD INCLUDE THE MOST DIFFICULT TASKS, THE MOST TIME CONSUMING TASKS, AND THE TASKS REQUIRING THE MOST RESPONSIBILITY ON THE PART OF THE WORKER."

Detroit-Metro Guidelines state, "10. Basic tasks are defined by the supervisor or employee as those activities that constitute the major purpose of the job. For purposes of NOBELS, not more than six activities will be identified as basic."

Follow directions given on the bottom of page 2. After the introductory paragraph in no. 7, the interviewer states, "Now would you give me one of this employee's basic tasks." The supervisor might answer, "She takes my dictation and types up the letters for my signature."

The interviewer writes the supervisor's response on the left-hand side of the page by no. 1 and proceeds to square A in which he lists the correct numerical code according to the following definitions: e.g.,

	A	B	C	D	E
1. She takes my dictation and types up the letters for my signature.	2	2	1	50	3

**NOTE:** MEMORIZE QUESTION-AND-ANSWER CHOICES. The wording on the NOBELS interview form for A-E is merely a cue to the interviewer. The wording of the question-and-answer choices appears in full only here in the instructions.

### A Consequences

**Question:** "How would you evaluate the effect of an employee's error or the employee's failure to perform this task or a portion of it related to company financial loss or effects on people inside or outside your company? Would you say the error would bear:

**Answer** Great consequences 1  
**Choices:** Moderate consequences 2  
 Little if any consequences" 3

Now ask additional basic tasks and A for each task as it is mentioned. When all tasks and all A's are listed, proceed with B, C, D, and E as follows:

### B Changing

**Question:** "Of all the tasks listed, do you see any of these tasks changing in the near future?" (Share what you have written on basic tasks with the supervisor to permit him to answer more easily on B-E.)

**Answer** Yes 1 No 2  
**Choices:**

If the supervisor says a task is changing, ask "How changing?" and fill in answer at the bottom of page 2. DO NOT PROBE FOR EXISTING TASKS THAT SUPERVISOR SAYS ARE CHANGING. No data for performance statements (page 6) will be written up for old tasks that the supervisor says will shortly cease to exist.

### C Frequency

**Question:** "Of all the tasks listed, how would you evaluate each as to frequency of performance?"

**Answer** Is this among the tasks most frequently performed? 1  
**Choices** Is this among tasks performed with medium frequency? 2  
 Is this infrequently performed--once in a long while? 3

Fill in C for all basic task information given. D is asked for all tasks listed after C is completed.

D Time Spent

Question: "What percent of this employee's total time does she spend on (state tasks in order given)?"

Answer 1%-100%  
Choices:

A quick check by the interviewer after D is completed for all tasks listed should indicate a percent total at or near 100%. A total more than 10 percentage points off 100 results in the interviewer asking the interviewee which item(s) he would like to adjust to come closer to an actual 100.

E Rank Tasks

Question: "Would you now rank the tasks you have mentioned in order of difficulty?" (It may be necessary to repeat tasks.)

Answer	Most difficult	<u>1</u>	(This is done for 6 or how- ever many tasks listed.)
Choices:	Next most difficult	<u>2</u>	
	Next most difficult	<u>3</u>	
	Next most difficult	<u>4</u>	
	Next most difficult	<u>5</u>	
	Next most difficult	<u>6</u>	

After completing E, the interviewer now proceeds to page 3 to elicit specific incidents from the supervisor.

INTERACTION INCIDENTS FROM SUPERVISOR--Page 3

Page 3 is entirely in microtype implying that the interviewer know word for word the introductory paragraphs and the specific questions.

"THE NEXT FOUR QUESTIONS ASK FOR SPECIFIC INCIDENTS IN WHICH THIS EMPLOYEE HAS TAKEN PART ON HIS JOB. BY GETTING EACH OF THE PROSPECTIVE 1,000 SUPERVISORS TO CITE SPECIFIC INCIDENTS FOR EACH OF THE FOUR QUESTIONS, WE WILL HAVE A LIST OF ACTUAL JOB HAPPENINGS TO USE AS CRITERIA IN EVALUATING PERFORMANCE."

"THE FIRST TWO QUESTIONS RELATE TO JOB PERFORMANCE OF A SPECIFIC BASIC TASK, AND THE NEXT TWO RELATE TO THE CONTACT HE HAS WITH OTHER PEOPLE IN HIS JOB."

8. "REGARDING JOB PERFORMANCE OF A BASIC TASK, WOULD YOU CITE A SPECIFIC INCIDENT WHEN THIS EMPLOYEE WAS PARTICULARLY EFFECTIVE IN PERFORMING THIS TASK?" (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT. PROBE FOR "WHY" EFFECTIVE.) (RELATES TO TASK NO.       .)

This must be a specific incident. Permit the supervisor to see what you have written for the basic tasks so he may more easily choose to which task he wishes to relate a specific incident. Enter the basic task number in the space provided in question no. 8.

If the supervisor is general and not specific; e.g., "She types very well," repeat what he has said as the beginning of the answer you wish. "You say, 'She types very well;' and what exactly has she typed so well that would make you cite her typing as indicative of effective performance?" Rather than ask "what," the interviewer could phrase his question, "Would you recall a specific incident when her typing particularly impressed you?"

If the supervisor does not state any incident for a basic task, probe with, "Perhaps you cannot recall a specific incident when this employee was particularly effective in performing one of these tasks, but would you give me an incident when anyone employed by you as a (employee's job title) was particularly effective in performing one of these basic tasks?"

Then probe for the "why" effective.

Examples of probes here would include, "You say she did such an excellent job of preparing and typing up the recap of your Massachusetts sales territory that your salesman phoned you to tell you he thought it was the best recap he'd ever received. Why do you think she did such an excellent job here?" This could also be phrased, "What is it that made her do such an outstanding job on this recap?"

An acceptable answer to "why" might be, "She doesn't just do a job because it is assigned. She actually tries to understand what the salesman wants to use the information for and then constructs the information so that it will be of the maximum help to him."

9. "IN THE WORKER'S TASK OF (RECALL FROM TASK LIST), YOU MENTION THAT AN ERROR COULD CAUSE (CHOOSE ONE WITH GREAT OR MODERATE) CONSEQUENCES. WOULD YOU CITE AN EXAMPLE WHEN THIS EMPLOYEE'S PERFORMANCE WAS A LITTLE LESS THAN PERFECT." (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT. PROBE FOR "WHY ERROR WAS MADE.") (RELATES TO TASK NO. \_\_\_\_.)

This must be a specific incident. Again, show the supervisor the basic task information you have just filled in as you ask the above question. Enter the basic task number to which the answer refers in the space provided in question no. 9.

If the supervisor does not give an answer, probe with, "In extending invoices which you cite as a task in which an error could cause great consequences, could you give me an incident when anyone extended incorrectly and what happened?"



If the supervisor still gives no answer or if only "little consequences" were listed for all basic tasks, ask the supervisor for any incident on job performance of anyone employed as a (employee's job title) who ever made a mistake.

Then probe "why" he feels the employee made the error.

An acceptable answer would be, "If she does more than two or three hours of extensions, she gets careless and doesn't double check her answers."

10. "SINCE ASSUMING THIS JOB, THERE MUST HAVE BEEN TIMES WHEN THIS EMPLOYEE DID AN OUTSTANDING JOB OF WORKING WITH SOMEONE ELSE OR IN HANDLING A SITUATION WITH A CUSTOMER OR CLIENT EITHER FACE TO FACE OR ON THE PHONE. WOULD YOU CITE AN EXAMPLE AND TELL ME IN WHAT WAY THIS EMPLOYEE HANDLED THE SITUATION EFFECTIVELY?" (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT. PROBE FOR "WHY"SUCCESSFUL.)

This incident must be specific. A typically unsatisfactory answer from a supervisor to question no. 10 is, "She just works well with people." Another might be, "She handles customers in a satisfactory manner." If the supervisor begins in such a general manner, probe.

Probes include:

"You say she works well with people. Could you relate a recent incident when she did work especially well with someone inside or outside your company?"

If the supervisor does not state a specific incident or says he can't think of any when you first ask the question, restate the question as follows:

"Recalling a recent incident when this employee was quite successful in working with people might be difficult to state at a moment's notice. However, could you tell me about an outstanding incident of any other employee you supervisewho is a (title of employee) or any previous (title of employee) you have supervised when the employee worked well with other people?"

Then probe the "why" successful.

"Can you pinpoint why you think she was successful in this instance?"

Acceptable answers would be:

"Last week one of her co-workers, who had a rush typing job, asked her for help, and she gave it willingly. She also managed to get all my work done even though she spent over two hours on the other employee's typing job. She can add that extra spurt when it is needed." (the "why" successful) and

"Yesterday an account called to tell me how much he appreciated the help my secretary gave him with his order while I was out of town.

She can assemble facts quickly and communicate them to the understanding of the party concerned." (the "why" successful)

11. "NOW WOULD YOU GIVE ME AN INCIDENT WHEN THIS EMPLOYEE WAS A BIT LESS THAN 100 PERCENT EFFECTIVE IN HIS CONTACT WITH OTHER BUSINESS PEOPLE--EITHER IN THE OFFICE OR WITH YOUR BUSINESS CONTACTS?" (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT. PROBE FOR "WHY" LESS THAN EFFECTIVE.)

This must be a specific incident. If the answer is, "She is an excellent worker and I can't think of anything she does that is ineffective" or "Her errors must be minor because I really can't recall one," then the interviewer might proceed with:

"As none of us is perfect and we often make mistakes when we are first learning a job, would you cite a specific incident when this employee or any other person in this job classification has done anything the least bit ineffective in dealing with other business people either inside or outside your company?" or

"Even though an ineffective contact with other business people might be ever so slight, your telling us about it would help us list all these incidents and structure school work so that these errors might be eliminated in the future. Would you cite any incident at all when this worker or another working in the capacity of a (title of employee) was slightly ineffective in his contacts with any business person?"

Now probe for "why" less than effective; e.g., "Why do you consider this incident to be ineffective?"

Acceptable answers would be:

"She didn't get back to someone who was waiting to speak with me on the phone last week. The person had to hang up and try again. She has a tendency to goof on followup." (the "why" ineffective) and

"She was rude to a student who asked her a question when she was busy with the end-of-the-month billing last Friday. When she works under pressure, she lets other people feel she doesn't want to be bothered with anything else." (the "why" ineffective)

If the interviewer has any incident not filled in, it is suggested that he courteously express the importance of completeness of the form and request permission to call the supervisor (state a specific time and date) and get the information needed after the supervisor has had time to think about job or social interaction incidents and might recall one that presently does not come to mind.

#### PART C. INFORMATION FROM EMPLOYEE--Page 4

The interviewer introduces himself and recites the next two paragraphs to acquaint the employee with NOBELS.



TASK DATA FOR PERFORMANCE GOAL WRITING--Page 6

A task is basic if it has been mentioned by either the supervisor and/or the employee. If the employee does not mention all that the supervisor mentions, the interviewer might probe for tasks the supervisor mentions if the employee mentions less than six or the six she mentions look as if they might be combined into fewer tasks.

Fill in on page 6 in the upper left-hand corner the no. of the task as given on page(s) 2 and/or 5 and who gave it--E (employee) and/or S (supervisor).

**R E M E M B E R:** A task has meaning in and of itself to the employee. Do not combine such tasks as (a) receives incoming phone calls and (b) makes luncheon reservations--because you consider them "clerical duties" or "receptionist duties." If you decide each is a basic task, then each must have its own writeup on a separate sheet. If one or the other is not basic, then it will not be written up. Whatever the decision, unlike tasks cannot be combined in one Task Data Sheet unless the tasks are part of a process, and it is the process that has meaning in and of itself to the employee. If "Processing invoices" is a task that has meaning in and of itself to the employee and using the following questions found at the bottom of page 6 as guidelines for probing and writing up the raw data, the interviewer might get the response which follows (after the questions):

INTERVIEWER: TO WRITE FINAL DATA SHEET FOR PERFORMANCE GOAL, YOU WILL NEED ANSWERS TO THE FOLLOWING QUESTIONS: (RESTATE TASKS FROM PAGE 5--IF NECESSARY FROM PAGE 2--TO WRITE UP THE SIX--MAXIMUM--PERFORMANCE STATEMENTS.)

1. (LISTED AS YOUR FIRST STEP) HOW DO YOU KNOW WHEN THIS TASK IS TO BE PERFORMED? (CUES AND SOURCE)
2. WHAT DOES THE EMPLOYEE DO IN PERFORMING THIS TASK?
3. WHAT TOOLS (EQUIPMENT), SPECIAL SUPPLIES, OR REFERENCE MATERIALS ARE NECESSARY FOR PERFORMING THIS TASK?
4. (LISTED AS YOUR FINAL STEP) HOW DO YOU KNOW WHEN YOU HAVE COMPLETED THE TASK?
5. WHAT KINDS AND LEVELS OF SPECIAL SKILLS ARE REQUIRED FOR THIS TASK?
6. WHAT ARE THE STANDARDS (OR CRITERIA) NECESSARY FOR SUCCESSFUL COMPLETION?
7. SPECIAL REQUIREMENTS FOR PERFORMANCE: DECISION MAKING? TECHNICAL VOCABULARY? PRESSURES (COPING)? CONSEQUENCES OF NOT PERFORMING SATISFACTORILY?



IT IS EXTREMELY IMPORTANT THAT THE INTERVIEWER ATTEMPTS AT ALL TIMES TO CAPTURE THE TASK AS THE EMPLOYEE INTERVIEWED ACTUALLY PERFORMS IT AS EXPLAINED BY THE EMPLOYEE. THE INTERVIEWER IS NOT TO ADD ANYTHING WHICH IS NOT TOLD HIM BY THE EMPLOYEE.

"Processing invoices" might be written by the interviewer as follows:

**SUMMARY--TASK BACKGROUND:** Customers send orders to home office in another state. If home office approves orders, orders are teletyped to worker's office.

**TASK:** The worker process invoices.

- (STEPS):**
1. Receives customers' orders on teletype from home office
  2. Types 14-part snap-out invoice
  3. Sends bill of lading copy of invoice to shipping department
  4. Sends out customers' and salesmen's acknowledgements in window envelopes
  5. Receives bill of lading copy from shipping department when order is shipped
  6. Computes extensions on printing calculator
  7. Types extensions on invoices
  8. Proofreads all numbers with other employee
  9. Mails copies to home office, customers, and salesmen
  10. Files control copy in numerical file to conclude task

**CONTINGENCIES OR ALTERNATIVES:** Instead of step 8, supervisor checks invoices if many invoices are typed.

**CRITERIA:** Must operate printing calculator and proofread correctly. Customers express dissatisfaction if billed incorrectly.

Most of your tasks will fall into the following seven categories which were selected by classifying the first 1500 performance statements of the NOBELS pilot study.

1. Mailing
2. Duplicating
3. Filing
4. Recording (includes manipulating numbers)
5. Typewriting
6. Automatic and Electronic Data Processing
7. Personal Interacting

By "falling into" these categories, it is implied that the major activity of the performance statement fits into one of the categories--although the steps may actually be actions found in other categories.

For example, task verbs under no. 4 Recording (includes manipulating numbers) are presently: posts, verifies, compiles, issues, updates, processes, fills in/out, evaluates, corrects, computes, and balances. The verbs in the steps of no. 4 tasks could come from any of the seven categories.

In writing up Task Data for Performance Goal Writing taking the first basic task mentioned by the employee, the interviewer uses the questions at the bottom of page 6 as his constant guide.

Summary--Task Background:

This is the foundation upon which the task statement and subsequent steps are built. It states in a sentence or two the conditions which led to the point at which the worker assumes his task. These few words set the scene for whoever reads the task data.

SUMMARY--TASK BACKGROUND: Mail is brought up from mail room twice daily (9:00 a.m. and 1:00 p.m.) and given to employee. Outgoing mail is picked up twice daily (11:00 a.m. and 5:00 p.m.).

Task:

This statement begins with "The worker" and follows immediately with one or two action verbs in the present tense which best describe the major activity of the task.

e.g.,                   The worker files the day's answered correspondence.  
                          The worker retrieves auto accident records from  
                          policyholders' files.

The Detroit-Metro Guidelines stress, "4. Commonality of terminology desirable. We recommend the use of the Taxonomy of Office Activities for Business and Office Education as a source helpful in standardizing terminology." For commonality of all task statements written, use the present tense of the action verb.

Do <u>not</u> use:	<u>Use:</u>
to identify	identifies
identifying	
to open	opens
opening	

Following the action verb is the object or objects which receive the action. Be specific enough to identify the objects to the clarification of the reader. Do not use brand names for tools and equipment but state type of tools and equipment (e.g., use "photo-copy machine" instead of Xerox).

Do not use:

Use:

files material

files letters, memos, and reports

checks cards

checks IBM punched cards

e.g., A B C D E

1. Takes care of mail	3	2	1	10	6
-----------------------	---	---	---	----	---

The task for this first basic task mentioned by the employee could be:

TASK: The worker distributes incoming mail and collects outgoing mail.

The Detroit-Metro Guidelines mention, "11. Key steps indicate the sequence of activities making up the task." Therefore, the proper order here will bring the steps into view.

(Steps):

Again, referring to the questions at the bottom of page 6, it is imperative that the interviewer probe for task data getting the answers to these questions. Questions 1-4 are for Steps; 5-7 are for the Criteria.

The first step (question 1) written in final form will tell any reader how the worker knows he is to perform this task.

e.g., 1. Opens mail (as soon as mailboy brings it) with electric letter opener.

Questions 2 and 3 note the information necessary in writing up the steps:

- e.g.,
2. Date stamps all mail
  3. Scans contents
  4. Sorts mail by recipients
  5. Distributes all mail other than requests for product information
  6. Fills and sends out requests for product
  7. Collects all mail twice daily from department's outbaskets
  8. Deposits outgoing mail in inter-company truck outside department

Contingencies or Alternatives:

These are the steps which slightly change the normal routine of performing a task:

e.g., Does not open "Personal" mail, but date stamps the envelope.

Criteria:

Questions 5-7 ask for information that will lead to establishing criteria.

e.g.,  
Criteria Incoming mail reaches correct persons and routine inquiries are handled promptly. All outgoing mail from department must be placed in truck or deposited in safe overnight before the worker leaves for the day.

The criteria are to be elicited from the employee, and the interviewer is not to insert here either his own or what he feels are obvious or acceptable criteria.

PREPARING FINAL COPY OF TASK DATA FOR PERFORMANCE GOAL WRITING SHEETS

In writing the final copy of page six for each basic task (not more than 6), the answers to the questions at the bottom of page 6 should be in the Summary, Task, Steps, Contingencies or Alternatives and Criteria. Do not merely answer these questions but incorporate the answers in the parts of the Task Data for Performance Goal Writing.

Be certain to mention tools and machines used in the steps as well as the task statement.

In using abbreviations on the Performance Goal Writing Sheets, the writer must spell the word the first time it is used and place the abbreviation in brackets behind the word. Thereafter the abbreviation may be used alone.

The writer must use terminology easily understandable to any business teacher who might read these performance goal writing statements.

It is suggested that the performance goal writing sheets be written up as soon as possible after each interview. After each case is completed, the interviewer is urged to turn it in to the person in charge in his area.

PREPARING NOBELS MATERIALS FOR MAILING TO DETROIT

According to the Detroit-Metro Guidelines, the following statements pertain to the final processing of NOBELS materials in each of the areas before sending them on to Detroit:

Project directors are urged to check data collectors' work:  
a. delete personal names, b. use action verbs in task statements and state steps.

Project director reviews all cases for adequacy prior to sending them to Wayne State University.

All reports sent to project director at Wayne State University to be typewritten.

Project directors are urged to send by first-class mail 10 to 25 cases in a package. Address the package:



**NOBELS**  
c/o Mrs. E. J. Weber  
1107 Edgewood Avenue  
Ann Arbor, Michigan 48103

It is agreed, of course, that you will photocopy and retain the photocopy for your own reports and reporting. The photocopy is also insurance against loss in the mail.

## Verb Classification

<u>CODE</u>	<u>WORD</u>	<u>SYNONYMS</u>	<u>CODE</u>	<u>WORD</u>	<u>SYNONYMS</u>
003	accumulate activate	- collect 051 - operate, start, turn on	072	convert	
006	add		075	copy	- duplicate 120
009	adjust	- change, set		correct	- change, de- bug, fix, update, up- grade
	advise	- inform 147	078	count	
	affix	- attach 024	081	cut	- clip
	alert	- inform 147	084	deactivate	- turn off
	annotate	- note 192		debug	- correct 075
012	answer			decide	- determine 096
015	arrange	- negotiate, plan, schedule, straighten		delete	- remove 246
	ask	- inquire 150, request 252	087	deliver	- give, hand to, present, submit
	assemble	- collect 051			
018	assign		090	deposit	
021	assist			describe	- explain 126
024	attach	- affix, clip, staple	093	design	- devise 099
	balance	- reconcile 234		destroy	- discard, purge, throw away
027	batch				
030	bind	- tie	096	determine	- decide
	block in	- arrange 015	099	devise	- design
	block out	- flowchart 138	102	direct	- show, take
	break down	- sort 282	105	disburse	- pay
	calculate	- compute 066		discard	- destroy 093
033	call	- page, telephone	108	discuss	- confer, consult, talk with
	carry out	- perform 204			
	change	- adjust 009			
036	check	- examine, inspect	111	distribute	- give to, hand
	choose	- select 273			
039	clean	- dust, tidy	114	divide	
	clip	- attach 024, cut 081	117	draw	- sketch
			120	duplicate	- copy, mimeo- graph, photo- copy, Xerox
042	close			dust	- clean 039
045	code			enter	- record 237
048	collate			erase	- remove 246
051	collect	- accumulate, assemble, gather	123	evaluate	- grade, score
054	compare	- match			
057	compile	- make/set up		examine	- check 036
060	complete	- fill in/out	126	explain	- describe
063	compose	- make up	129	extend	
066	compute	- calculate, figure	132	extract	- pull 222
	confer	- discuss 108		feed	- put into, thread
	confirm	- verify 312			
069	connect			figure	- compute 066
	consult	- discuss 108	135	file	
				fill in/out	- complete 060

<u>CODE</u>	<u>WORD</u>	<u>SYNONYMS</u>	<u>CODE</u>	<u>WORD</u>	<u>SYNONYMS</u>
	find	- locate 174		look for	- search 270
	fix	- correct 075	180	mail	
138	flowchart	- block out		mimeograph	- duplicate 120
	fold	- [no education- al signifi- cance]	183	maintain	- keep
	formulate	- devise 099		make	- compile 057
	forward	- send 276		make note of	- note 192
	gather	- collect 051		make up	- compose 063
	get	- obtain 195		mark	- label 165, write 324
	give back	- return 255	186	match	- compare 054
	give direction	- instruct 156	189	multiply	
	give to	- deliver 087, distribute 111	192	negotiate	- arrange 015
	go	- travel 306		notations	- note 192
	go through	- search 270		note	- annotate, make note of, nota- tion, notice
	grade	- evaluate 123		notice	- note 192
141	greet	- welcome		notify	- inform 147
	hand to	- deliver 087	195	obtain	- [fetch], get, pick up, secure
	handwrite	- write 324		open	
144	hold	- keep, store	198	operate	- activate 003
	identify	- determine 096, inform 147	201	oversee	- supervise
	index	- sort 282		package	- wrap 321
147	inform	- advise, alert, identify, no- tify, relate, remind, sig- nal, [suggest]	204	page	- call 033
	initial	- sign 279	207	pay	- disburse 103
150	inquire	- ask	210	perform	- carry out
153	insert	- put in, stuff	213	phone	- call 033
	inspect	- check 036		photocopy	- duplicate 120
156	instruct	- give direc- tion, show, teach	216	photograph	
	interview		219	pick up	
159	issue		222	place	- put
162	journalize	- record 237	225	plan	- arrange 015
	keep	- hold 144, maintain 183		post	- [to ledger only]
165	label	- mark, tag		present	- deliver 087
168	list			proofread	
171	load	- reload, un- load	228	provide	- supply
	locate	- find		pull	- extract, take from
174	lock			punch	- keypunch
177	log	- record 237		purge	- destroy 093
	look at/on/up	- refer 240	231	put	- place 210
			234	put into	- feed 132, in- sert 153
			237	quote	
				read	- scan 267
				receive	- take
				reconcile	- balance
				record	- enter, journal- ize, log

<u>CODE</u>	<u>WORD</u>	<u>SYNONYMS</u>	<u>CODE</u>	<u>WORD</u>	<u>SYNONYMS</u>
240	refer	- look at/on/ up, relay, turn over		tag	- label 165
				take	- direct 102, receive 231
243	refuse	- reject, turn away	291	take dictation	
	reiterate	- repeat 249		take from	- pull 222, receive 231
	relate	- inform 147		take off	- remove 246
	remind	- inform 147		talk with	- discuss 108
246	remove	- delete, erase, take off		teach	- instruct 156
				telephone	- call 033
249	repeat	- reiterate, tell again		tell	- inform 147
				tell again	- repeat 249
252	request	- ask	294	test	- [administer] test
255	return	- give back			- feed 132
	review	- scan 267		thread	- destroy 093
258	route			throw away	- clean 039
261	run tape			tidy	- bind 030
264	run through			tie	
267	scan	- read, review	297	total	- search 270
	schedule	- arrange 015		trace	
	score	- evaluate 123	300	transcribe	
	seal	- [no educa- tional sig- nificance]	303	transfer	- switch
				transmit	- send 276
270	search	- go through, look for/up, trace	306	transport	- travel 306
				travel	- go, trans- port
	secure	- obtain 195		turn away	- refuse 243
273	select	- choose		turn off	- deactivate 084
276	send	- forward, transmit		turn on	- activate 003
				turn over	- refer 240
	separate	- sort 282	309	typewrite	- type
	set	- adjust 009, compile 057		update	- correct 075
				upgrade	- correct 075
	show	- direct 102, instruct 156	312	verify	- confirm
				weed	- sort 282
279	sign	- initial	315	weigh	
	signal	- inform 147		welcome	- greet 141
	sketch	- draw 117	318	wire	
282	sort	- break down, index, sepa- rate, weed	321	witness	- oversee 201
			324	wrap	- package
				write	- handwrite, mark
285	stamp			Xerox	- duplicate 120
	staple	- attach 024			
	start	- activate 003			
	store	- hold 144			
	straighten	- arrange 015			
	stuff	- insert 153			
	submit	- deliver 087			
288	subtract				
	supervise	- oversee 201			
	supply	- provide 219			
	switch	- transfer 303			



APPENDIX D

NOBELS Action Verbs and Synonyms

How to Read the NOBELS Verb List

The primary verbs are reported alphabetically in the master NOBELS listing with definitions, examples, and synonyms classified thereunder. The frequency of occurrence in a total of 32,447 verbs and the rank of each of 57 primary verbs classified are also given. All underlined primary verbs and synonyms in the NOBELS Action Verbs and Synonyms were not included in the Index of the Taxonomy of Office Activities.

Rank N=57	<u>Verb and Synonyms</u>	<u>Definition and Examples</u>	<u>Fre- quency</u>
53	<u>add</u>	to increase in number, size, or im- portance . . . . . "Add items to inventory sheet that have been added to inventory." "Add checks from register and remove tape."	137
47	adjust	to bring to a more satisfactory state . . . . . "Adjusts counter for desired number of copies."	159
	change	"Change old procedure as required by new procedure."	
	<u>set</u>	"Set computer for proper itemization of charges."	
19	answer	to speak, write, or reply . . . . . "Answers incoming telephone calls."	501
31	arrange	to put into correct or desired order . . . . . "Arrange appointment to his satisfaction."	374
	<u>block in/out</u>	"Blocks in reservations of rooms."	
	collate	"Collates paper pack."	
	design	"Designs new form in rough draft."	
	devise	"Devise the best form for tabulation."	
	<u>flowchart</u>	"Flowchart program using layout and spacing chart."	
	negotiate	"Negotiates solution or refers guests to manager."	
	plan	"Plans for three inspections daily."	
	schedule	"Schedules appointment for salesman."	
	<u>straighten</u>	"Straighten up pamphlets."	

<u>Rank</u> <u>N=57</u>	<u>Verb and Synonyms</u>	<u>Definition and Examples</u>	<u>Fre-</u> <u>quency</u>
16	<u>attach</u>	to make fast or join . . . . . "Attach signed original to patient's chart."	525
	<u>affix</u>	"Affix postage stamp on envelope."	
	<u>clip</u>	"Clip these two items together."	
	<u>staple</u>	"Staple report to original ticket."	
17	<u>call</u>	to communicate or utter . . . . . "Call supplier and place order."	520
	<u>page</u>	"Page doctor when interviewee arrives."	
	<u>telephone</u>	"Telephones doctor to cancel interview."	
7	<u>check</u>	to inspect for satisfactory condition . . . . . "Check schedule for shift's processing."	1389
	<u>examine</u>	"Examined insured's file to determine amount paid."	
	<u>inspect</u>	"Inspect each check for signature."	
57	<u>code</u>	any system of symbols for meaningful communication . . . . . "Code information for keypunch."	83
36	<u>collect</u>	to bring together into a band or group . . . . . "Collect copies of transactions at points of origin."	278
	<u>accumulate</u>	"Accumulate data from memos."	
	<u>assemble</u>	"Assemble purchase orders for week."	
	<u>batch</u>	"Batches currency into bundles."	
	<u>gather</u>	"Gathered reports."	
42	<u>compare</u>	to examine for the purpose of discovering resemblances or differences . . . . . "Compare balance with checkbook balance."	305
	<u>balance</u>	"Balance register by re-adding."	
	<u>match</u>	"Match sums received against checks."	
	<u>reconcile</u>	"Reconcile ledger monthly."	
34	<u>compile</u>	to assemble and put in logical order . . . . . "Compile data on collections."	247
	<u>list</u>	"Lists checks and cash on deposit slip."	

<u>Rank</u> <u>N=57</u>	<u>Verb and Synonyms</u>	<u>Definition and Examples</u>	<u>Fre-</u> <u>quency</u>
	<u>make up</u>	"Make up a folder for employee."	
	<u>set up</u>	"Sets up a folder for applicant."	
33	<u>complete</u>	to fill, make entire, perfect . . . . . "Completes card with correct information."	328
	<u>fill in/out</u>	"Fills in/out description and amount."	
18	compute	to determine by mathematical means or arrive at an answer . . . . . "Computes benefits if loss was payable."	503
	calculate	"Calculate premium using adding machine."	
	convert	"Converts data to charts and graphs."	
	count	"Count cash twice a week."	
	divide	"Divides list among three workers."	
	extend	"Uses calculator to extend orders."	
	<u>figure</u>	"Figure up correct premium."	
	<u>multiply</u>	"Multiply hours times hourly rate."	
	<u>subtract</u>	"Subtract actual from standard cost to get variance."	
27	correct	to change in order to set right . . . . . "Correct cards containing errors."	404
	change	"Change file records to reflect new information."	
	debug	"Debug machine."	
	fix	"Inspect and fix machine if possible."	
	<u>update</u>	"Update records to make current."	
	<u>upgrade</u>	"Upgrade old cards."	
3	deliver	to give, transfer, yield possession of . . . . . "Deliver completed report to supervisor."	1923
	<u>give</u>	"Give to typist for copying."	
	<u>hand to</u>	"Hands correspondence to manager."	
	<u>present</u>	"Presents to agent handling account."	
	submit	"Submits program for testing."	
54	destroy	to put out of existence . . . . . "Destroy order notices as executed."	132
	discard	"Discard old files."	

<u>Rank</u> <u>N=57</u>	<u>Verb and Synonyms</u>	<u>Definition and Examples</u>	<u>Fre-</u> <u>quency</u>
	purge	"Purges confidential materials in burn barrel."	
	throw away	"Throw carbons away in wastebasket."	
13	<u>determine</u>	to settle a question or come to a decision . . . "Determine number of copies required."	632
	choose	"Chooses supplies from shelf."	
	decide	"Decide on matter being discussed."	
	evaluate	"Evaluates run for source of error."	
	<u>grade</u>	"Grade test using punched master."	
	<u>identify</u>	"Identify the need for information."	
	<u>score</u>	"Scores tests."	
	select	"Select proper form from desk."	
	<u>test</u>	"Tests program on computer." "Administers typing tests."	
25	<u>direct</u>	to assist by giving advice, instruction, and supervision . . . . . "Direct patient to receptionist's desk."	408
	assist	"Assist applicant as needed."	
	describe	"Describes how to type contracts."	
	explain	"Explains correct correspondence format."	
	help	"Help artist arrive at best data portrayal."	
	instruct	"Instructs applicants to wait."	
	oversee	"Oversee filling out of application."	
	provide	"Provide information."	
	show	"Shows applicants to test room."	
	supervise	"Supervise move from office to office."	
	supply	"Supply information necessary."	
	<u>take</u>	"Take person to supervisor."	
	teach	"Teach new employee how to keep records."	
	<u>witness</u>	"Witness signature."	
56	<u>discuss</u>	to discourse about, examine and pass on . . . "Discuss special instructions with customer."	96
	confer	"Confer with supervisor about matter."	
	consult	"Consult with artist while work progresses."	



<u>Rank</u> <u>N=57</u>	<u>Verb and Synonyms</u>	<u>Definition and Examples</u>	<u>Fre-</u> <u>quency</u>
	<u>interview</u>	"Interview patient in patient's room."	
	<u>talk with</u>	"Talk with supervisor about plans."	
40	distribute	to deal out, to dispense . . . . .	245
		"Distributes mail delivered to office."	
	<u>give to</u>	"Give out test forms to students."	
	<u>hand</u>	"Hands out test booklets."	
25	duplicate	to make a copy of . . . . .	408
		"Duplicates desired number of copies."	
	copy	"Copy code on item to be filed."	
	<u>mimeograph</u>	"Mimeographs 250 copies of sermon."	
	<u>photocopy</u>	"Photocopy original purchase order."	
	<u>Xerox</u>	"Xerox the letter."	
5	file	to arrange in particular order for preserva- tion and reference . . . . .	1640
		"File card alphabetically by name."	
52	greet	to meet and give salutations . . . . .	142
		"Greet visitors."	
	welcome	"Welcome arriving guests at meeting."	
38	hold	an order or indication that some action is to be delayed . . . . .	254
		"Hold cards for verification."	
	keep	"Keeps one pile for office file."	
	maintain	"Maintain control sheet for office keys."	
	store	"Store paid instrument for further processing."	
15	inform	to make known or give instruction . . . . .	547
		"Informs supervisor of new procedure."	
	advise	"Advises caller that callee is out."	
	alert	"Alert room service dates guests will arrive."	
	notify	"Notify ex-patient his payment is past due."	
	quote	"Quotes coverage, premium for first year, and escrow."	
	reiterate	"Reiterate that it is patient's responsibility to pay."	
	relate	"Relate to customer desired information."	

<u>Rank</u> <u>N=57</u>	<u>Verb and Synonyms</u>	<u>Definition and Examples</u>	<u>Fre-</u> <u>quency</u>
	remind	"Remind supervisor of appointments."	
	repeat	"Repeat process until number of needed . copies are typed."	
	<u>signal</u>	"Signal supervisor his call is ready."	
	suggest	"Suggested revisions in the plan."	
	<u>tell</u>	"Tell supervisor when evidence of coverage is not received."	
12	<u>insert</u>	to put into or inject . . . . . "Insert paper into computer for printout."	788
	<u>put in</u>	"Put letter in basket."	
	stuff	"Stuffed envelopes."	
49	issue	to give out or make available . . . . . "Issues keys to incoming personnel."	153
	assign	"Assigns a number to the application."	
	<u>disburse</u>	"Disburses cash for reimbursement."	
	<u>pay</u>	"Pays out money from window cash."	
20	<u>locate</u>	to determine the place of, to seek out and find . . . . . "Locates information in file."	485
	<u>find</u>	"Find papers needed from the files."	
	<u>go thru</u>	"Goes through pending pouch."	
	<u>look for/up</u>	"Look up information in computer book."	
	search	"Worker searches for order in her files."	
	trace	"Trace shipment by calling or writing customer, supplier, or carrier."	
29	<u>mail</u>	to send postal matter by mail . . . . . "Mails invoice to customer."	484
45	<u>note</u>	to take due or special notice of . . . . . "Notes procedure and types rough draft."	193
	annotate	"Annotates travel calendar with necessary information."	
	<u>make note of</u>	"Makes note of the changes."	
	<u>notate</u>	"Make notations in log book of voided order."	
8	obtain	to gain or attain possession of . . . . . "Obtains necessary signatures on forms."	1345

<u>Rank</u> N=57	<u>Verb and Synonyms</u>	<u>Definition and Examples</u>	<u>Fre-</u> <u>quency</u>
	<u>get</u>	"Gets information from manager."	
	<u>pick up</u>	"Picked up materials at other office."	
	<u>secure</u>	"Secures permission of underwriter to process change."	
44	<u>open</u>	to make available for use . . . . . "Open external mail for supervisor."	199
35	<u>operate</u>	to cause to function; to bring about; effect. "Operates a sequential stamping machine."	299
	<u>activate</u>	"Activated MTST to correct spot on tape."	
	<u>deactivate</u>	"Deactivates machine when finished."	
	<u>feed</u>	"Feed tape into keypunch."	
	<u>load</u>	"Loads input cards into the card reader."	
	<u>move</u>	"Moves lever to operating position."	
	<u>start</u>	"Start the machine."	
	<u>put in</u>	"Put mail into machine for stamping."	
	<u>thread</u>	"Thread tape on machine."	
	<u>turn off/on</u>	"Turn off/on machine."	
47	<u>package</u>	to enclose in a package or protective covering "Package documents for mailing."	159
	<u>bind</u>	"Bind on spiral binder."	
	<u>tie</u>	"Tie each group of envelopes with string."	
	<u>wrap</u>	"Film and packages wrapped for mailing."	
6	<u>place</u>	to cause to rest or lie, to dispose, to put into . . . . . "Places mail order on spindle on desk."	1504
	<u>put</u>	"Puts copy of suspense voucher in insured's folder."	
24	<u>proofread</u>	to read and mark corrections in matter . . . "Proofread letter and sign it."	422
14	<u>pull</u>	to remove or cause to be removed from a place (file) . . . . . "Pull report cards of withdrawals."	574
	<u>extract</u>	"Extracts copy of policy."	
	<u>take from</u>	"Investment book is taken from file."	

Rank N=57	Verb and Synonyms	Definition and Examples	Fre- quency
43	punch	to record data by perforating a card or tape . . . . . "Punch cards using information from sheets."	234
	keypunch	"Keypunch grades into individual class cards."	
1	receive	to take in, to admit, to accept . . . . . "Receives an order from a salesman."	2933
	<u>take</u>	"Takes requisition for funds."	
10	record	to set down in writing . . . . . "Records prices on sheet of paper."	958
	enter	"Enters invoice payment date when payment arrives."	
	journalize	"Journalizes the day's work."	
	log	"Logs travel request in travel log."	
	post	[to the ledger only] "Post salaries paid to personnel."	
57	refer	to send or direct for information . . . . . "Refer phone call to supervisor."	270
	consult	"Consult reference book for codes."	
	<u>look at/on/</u> <u>up</u>	"Look on precomputed chart for amount of discount."	
	<u>relay</u>	"Relay telephone calls."	
	<u>turn over</u>	"Turn call over to supervisor."	
22	remove	to change or shift location, take off or away . . . . . "Remove completed stack of cards from machine."	444
	delete	"Delete record by taking out 3x5 cards."	
	erase	"Erases former class and puts in new one on office class cards."	
	<u>take off</u>	"Takes off belt and index strip when machine stops."	
21	request	the act of asking for something . . . . . "Request identification on receipt of check."	468
	<u>ask</u>	"Ask for immediate payment."	
	inquire	"Inquire as to nature of problem."	
23	<u>return</u>	to go back or send back . . . . . "Return tickets to computer room."	424
	<u>give back</u>	"Give completed material back to supervisor."	



Rank N=57	Verb and Synonyms	Definition and Examples	Fre- quency
32	<u>run tape</u>	to operate a tape machine, e.g., adding machine . . . . . "Run tape on inventory sheet."	330
55	<u>run through</u>	a term used for putting data into a computer and operating . . . . . "Run through the computer the card deck received from keypunch."	121
30	scan	to make an intensive examination of, to check . . . . . "Scanned rough draft to see that all information had been added."	378
	<u>read</u>	"Read policy to determine if loss was covered."	
	<u>review</u>	"Review notebook to be sure nothing has been omitted."	
9	send	to cause something to be conveyed or transmitted by an agent to a destination . . . . . "Sends a note to the company asking for rest of shipment."	996
	forward	"Forwarded suspense vouchers to cashier."	
	route	"Route memo to typist to make changes in names."	
	transmit	"Transmit call through Washington."	
11	sort	to arrange according to characteristics . . . . . "Sort cards by record room number."	945
	<u>break down</u>	"Breaks down total of each project into specific items--desks, drafting tables, cabinets."	
	index	"Index folders into coding, correspondence, and personal."	
	separate	"Separates checks and cash."	
28	stamp	to impress or mark with a device . . . . . "Stamps utility bill with proper stamp."	387
46	take dictation	to write dictated material, usually in shorthand . . . . . "Takes dictation in shorthand."	170
50	total	a result of addition, a summation of factors "Totals receipts for regular accounts."	152

<u>Rank</u> <u>N=57</u>	<u>Verb and Synonyms</u>	<u>Definition and Examples</u>	<u>Fre-</u> <u>quency</u>
51	transcribe	to copy dictated materials in common, legible language . . . . . "Transcribes memo from dictation."	147
40	transfer	to pass from one to another . . . . . "Transfer totals to report form." <u>connect</u> "Connects line with broker."	245
2	<u>typewrite</u>	the act of using a typewriter [type] . . . . . "Types a rough draft of the dictation."	1925
39	verify	to confirm, to prove to be true . . . . . "Verifies accuracy of data on old order by checking information." confirm "Confirms reservations for manager's trip."	252
4	write	to form or trace symbols on paper . . . . . "Write total in left-hand corner." compose "Composes message to accompany application." draw "Draw a red line across form." handwrite "Handwrite in current date." initial "Initial left-hand corner of check." label "Label stacks of letters by zip code." <u>make up</u> "Makes up a telegram listing extensions." mark "Mark this amount on suspense voucher." sign "Sign form letters for agent." sketch "Sketches the art work." <u>tag</u> "Tags stock as it is received."	1677
	MISCELLANEOUS . . . . .		256
	clean	"Clean Xerox machine."	
	dust	"Dust files."	
	tidy	"Tidy conference room after meeting."	
	<u>close</u>	"Close tellers window."	
	lock	"Lock money in box."	
	cut	"Cuts off edges to fit in file."	
	deposit	"Deposit money in bank."	
	perform	"Performs special tasks as commanded by supervisor."	
	carry out	"Carry out duties utilizing information received."	

Rank N=57	Verbs and Synonyms	Definition and Examples	Fre- quency
	photograph	"Photographs checks on Recordak."	
	refuse	"Refuses claim."	
	reject	"Rejects offer of salesman."	
	<u>turn away</u>	"Turn salesman away gracefully."	
	<u>travel</u>	"Travels either in state owned vehicle or personal car."	
	<u>go</u>	"Goes to location as scheduled by supervisor."	
	transport	"Transport to office [mail]."	
	<u>wire</u>	"Wires board before proceeding."	
	<u>weigh</u>	"Weigh the letter on weighing machine."	

APPENDIX E

NOBELS Punched Card Information Code (Abbreviated)

ZERO CARD

<u>Location on NOBELS Form</u>	<u>Card Column</u>	<u>Code</u>	<u>Code Description</u>
P. 1, upper rt. corner	1	1-7	<u>GEOGRAPHICAL LOCATION</u> 1 - U.C.L.A. (Main Data), 2 - U. of Minnesota, 3 - U. of Georgia (Main Data), 4 - State U. of N.Y. at Albany, 5 - Wayne State U., 6 - U.C.L.A. (Pilot Data), 7 - U. of Georgia (Pilot Data)
	2-4	001-350	<u>CASE (INTERVIEW) NUMBER</u>
	5-6	00	<u>MASTER CARD NUMBER</u>
P. 1, Q. 2	7-8	01-99	<u>STANDARD INDUSTRIAL CLASSIFICATION</u> (See code list of SICs)
P. 1, Q. 3	9	1-2	<u>SIZE OF COMPANY (SIC)</u> (1) +100 employees, (2) -100 employees
P. 1, Q. 4	10	1-2	<u>STANDARD METROPOLITAN STATISTICAL AREA (SMSA)</u> (1) +100,000 population, (2) - 100,000 population
P. 3, Q. 10-11	11-12	1-0	<u>CRITICAL INCIDENT CLASSIFICATION - INTERACTION</u> 1 - Cognitive skills, 2 - Checking skills, 3 - Communication skills, 4 - Psychomotor skills, 5 - Work Habits, 6 - Attitudes, Affective, Within, 7 - Social Skills or Graces, 8 - Interpretation of the System, 9 - Instructs, Describes, Modifies, Creates, 0 - No Incident Given
P. 4, Q. 15	13-14	01-11	<u>JOB TITLE OF EMPLOYEE BY AMS - AMER. MGMT. SOC. - CLASSIFICATION</u> 01 - Mail Clerk, Messenger, 02 - File Clerk, 03 - General Clerk, 04 - Public Contacts Operator, 05 - Typist-Clerk, 06 - Office Machine Operator, 07 - Data Processing Equipment and Operations, 08 - Accounting Clerk, 09 - Telephone Switchboard Operator, Receptionist, 10 - Stenographer and Secretary, 11 - Materials Support Occupations, Transportation, Storing, and Recording.
P. 2, Q. 6, L. 2	15	1-9	<u>DEPARTMENT IN WHICH TASK IS PERFORMED</u> 1 - Accounting, Comptrollership, Credit, 2 - Data Processing, 3 - Personnel, 4 - Production, 5 - Purchasing, 6 - Receiving and Shipping, 7 - Sales, Marketing, and Advertising, 8 - Services, 9 - General Office or Indeterminate



<u>Location on NOBELS Form</u>	<u>Card Column</u>	<u>Code</u>	<u>Code Description</u>
P. 4, Q. 21	16	1-2	<u>SEX OF EMPLOYEE</u> 1 - Male, 2 - Female
P. 4, Q. 22	17-18	16-24	<u>AGE OF EMPLOYEE</u> Actual age of employee

ONE - SEVEN CARD

P. 6, 1st 4 boxes upper rt. corner	1-4	(See codes and explanation for same four digits on Zero Card)
P. 6, 5th box upper rt. corner	5-6	01-07 <u>TASK DATA FOR PERFORMANCE GOAL WRITING SHEET</u> 0-7 Page 6s can be written for each interview dependent on number of basic tasks the interviewer writes up.
P. 3, Q. 8-9	7-8 Any two of these numbers in combination	1-0 <u>CRITICAL INCIDENT CLASSIFICATION--JOB PERFORMANCE</u> (See listing for Zero Card)
P. 6s, 1st 2 of 4 digits opposite "Task"	9-10	01-19 <u>FUNCTION OF EACH PAGE 6 BASIC TASK - WHAT</u> Accounting 20-29 Electronic Data Processing 30-39 Personnel 40-49 Production 50-59 Purchasing 60-69 Shipping and Receiving 70-79 Sales 80-99 Services
P. 6s, 2nd 2 digits opposite "Task"	11-12	01-19 <u>FUNCTION OF EACH PAGE 6 BASIC TASK - OBJECT - WHY</u> Source Documents 20-29 Negotiable Instruments and Investments 30-39 Correspondence and Mail 40-49 Electronic Data Processing 50-59 Files 60-79 Reports, Tabulations, and Charts 80-89 Inventory (Intransit, Warehouse) 90-99 People and Ideas
P. 6s Series of 3 digits each beneath "Steps & Contingencies or Alternatives"	13-69	001-999 <u>VERBS</u> (See Coded Verb Classification)

CARD EIGHT

<u>Location on NOBELS Form</u>	<u>Card Column</u>	<u>Code</u>	<u>Code Description</u>
<u>ALL PAGE 2</u> Upper rt. corner	1-4		(See codes and explanations for same 4 digits on Zero Card)
	5-6	08	<u>MASTER CARD NUMBER</u>
Opposite box 1, 1st 2 digits	7-8		(See codes and explanation One-Seven Card for columns 9-10 - WHAT)
Opposite box 1, 2nd 2 digits	9-10		(See codes and explanation One-Seven Card for Columns 11-12 - WHY)
Boxes A-E for box 1	11	1-3	A) Consequences of Not Performing Task Correctly: 1 - Great, 2 - Moderate, 3 - Little
	12	1-2	B) Changing Task: 1 - Yes, 2 - No
	13	1-3	C) Frequency of Performing Task: 1 - High, 2 - Medium, 3 - Low
	14-15	01-99	D) Percent figure of employee's total time spent on task
	16	1-9	E) Most Difficult Task to Least Difficult Task--as many numbers as tasks written
Opposite box 2, 1st 2 digits	17-18		(WHAT--This is a repeat for box 2 of the same kind of material as in columns 7-8 of this card)
Opposite box 2, 2nd 2 digits	19-20		(WHY - OBJECT--This is a repeat for box 2 of the same kind of materials as in columns 9-10 of this card)
In boxes A-E, box 2	21-26		(A-E--This is a repeat for box 2 of the same kind of material as in column 11-16 of this card)

Continue in this manner (columns 7-16 and 17-26) for each task evaluation listed for card columns 27-36, 37-46, 47-56, 57-66, 67-76.

CARD NINE

<u>ALL PAGE 5</u> Upper rt. corner	1-4		(See codes and explanation for same 4 digit on Zero Card)
	5-6	09	<u>MASTER CARD NUMBER</u>
	7-76		(See codes and explanation for Card Eight. Card Nine is a replica of Card Eight differing only in that Card Eight records answers of employees and Card Nine the answers of supervisors to the same question.)