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TASK ANALYSIS EMPLOYING NOBELS ACTION VERBS

TO FLOWCHART GENERAL INSURANCE OPERATIONS

by

WILLIAM CURTIS HART

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

IN

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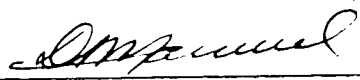
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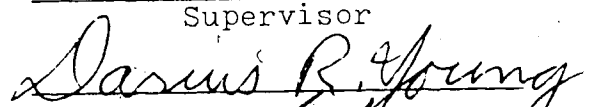
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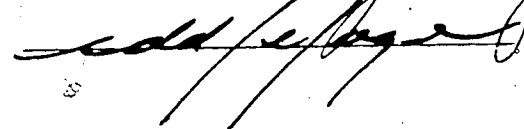
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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled

Task Analysis Employing NOBELS Action Verbs

to Flowchart General Insurance Operations

submitted by   William Curtis Hart

in partial fulfilment of the requirements for the degree of

Master of Education in Vocational Education.

_____
Supervisor

Date   October 14, 1977

ABSTRACT

Twenty-four persons, as employees, rated each of four
combinations of process chart and list of verbs as to
suitability for employment in recording and reporting the
tasks and the steps involved in each of these tasks which
are performed by employees in local general insurance
agencies. Nine persons, as employers, rated these same
combinations on the same basis. These employers were
selected from businesses identified as handling general
insurance in the telephone directory in use at the time the
study was undertaken.

The first purpose of the study was to determine the
combination of process chart and list of verbs preferred by
employees and by their employers. The second purpose of the
study was to provide, to each employer who participated in
the study, the combination of process chart and list of
verbs found to be preferred generally, for each task
reported by that person's employees.

Information was gathered by correspondence and by
interview. It was not required that all the tasks performed
by an employee be reported, if these were reported at all.
In the absence of any report of tasks performed by an
employee, that employee was required to rate, on the basis
of suitability as defined for the purposes of the study,
each of four combinations of process chart and list of verbs
for six tasks selected from a great variety of tasks

reported by other authors.

The general conclusion was that one combination of process chart and list of verbs is preferred by both the employees and by their employers. Specific conclusions were that the combination preferred by the respondents was chosen because of its overall suitability for employment, that information with respect to writing task performance statements is appropriate for use, and that certain "fundamentals" do apply in local general insurance agencies.

With respect to further study, i was recommended that consideration again be given to the work of Huffman et al. (1968) in "A Taxonomy of Office Activities for Business and Office Education". It was also recommended that this study, that is, the study which is the subject of this thesis, be replicated and expanded as might be found to be necessary.

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CHAPTER I

INTRODUCTION

Certain conclusions were reached by this author in "A
Study of the Feasibility of Adapting the Familiar Process
Chart to New Office and Business Education Learnings System
(NOBELS)" (Hart, 1976, pp. 54-55). These conclusions are as
follow:

(a) it is indeed feasible to chart the steps involved in
the tasks which were considered; the fact is that the steps,
in each and every task selected for charting, actually were
charted employing all the process charts which had been
developed.

(b) as it is feasible to chart the steps in the tasks
considered not only under "SIC* Performance Goals" on
pages 58-104, but also under "Performance Goals by
Functions" on pages 105-288, in "Development of Performance
Goals for a New Office and Business Education Learnings
System (NOBELS)" (Lanham, Herschelmann, Weber, & Cook,
1970), so should it be feasible to chart steps in any and
all tasks which might come to be considered.

(c) while certain procedural difficulties were encountered
in charting the tasks involved, and which difficulties no
doubt would be encountered in charting tasks to be
considered in any future study, these difficulties do admit
of being overcome, certainly on e strict adherence to a

---

*Standard Industrial Classification.

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uniform set of instructions were to be required of persons employing some adaptation or adaptations of the familiar process chart to report on office work.

(d) not only is it feasible, but it would appear also to be highly desirable, to be provided with a standardized means of recording and reporting what is being done in the office, certainly in view of benefits accruing from there existing knowledge of what is required and from being able to employ the very same means by which that information was gathered to develop instructional content and process for training these young persons.

Recommendations, by that same author (Hart, 1976, pp. 55-56), were made for future study of the desirability of employing some variation or variations of the familiar process chart to report what is being done in office work and are as follow:

(a) the recommendation that two process charts, each to make use of two lists of verbs, be employed to record and report the steps in tasks involved, for instance, in local general insurance agencies. . . . It is contended that, from the information to be obtained by this means, it should be possible to select the combinatic best suited to devising instruction better suit , than that which exists, to preparing young persons to enter this type of work, something which would be of immediate benefit should it be decided to develop a program of studies of this nature at the post-secondary level of education.

(b) the recommendation that a uniform set of instructions
be developed and that strict adherence to these be required
of persons employing any and all adaptations of the familiar
process chart, even to the extent of involving these persons
in intensive training in order that this condition might be
achieved.

(c) the recommendation that, in order to obtain
enthusiastic co-operation, by employers and employees alike,
consideration be given to the approach taken by Halsey
(1953, pp. 203-207) in "Supervising People". That author,
in his chapter on "Improving Work Methods", outlined "A
Six-Step Plan for Studying and Improving Work Methods" and
it very well might be that this approach, or some similar
approach, should be employed to gain the full co-operation
required to make any future study of this nature an
unqualified success. Then, too, it very well might be
concluded that the approach should stress benefits accruing
to (i) the employer from knowing the tasks involved in the
operations which go to make up his whole business and from
being able to employ this information in training new
employees, and (ii) the employees involved from knowing
precisely what will be required in any position and what
will have to be learned in order that the duties in that or
any position might be performed satisfactorily.

It was to the end of determining which combination of
process chart and list of verbs is preferred for employment
in recording and reporting the tasks and the steps involved

in each of these tasks that this study was directed. Also,
it was directed to the end of providing the employers who
participated in the study with process charts of the tasks
performed by their employees in the everyday conduct of
business.

Statement of the Problem

It was contended, by the authors in "A Taxonomy of
Office Activities for Business and Office Education"
(Huffman, Brady, Peterson, & Lacy, 1968, p. 3, that "new
instruction is needed to prepare young people to meet
current and emerging requirements of the office". This
contention was based on what these authors considered to be
the fact that, "while technological and scientific
innovations have caused changes in the office", "the basic
instructional program intended to prepare persons fo office
occupations has remained virtually unchanged".

Lanham, Herschelmann, Weber, and Cook, in "Development
of Performance Goals for a New Office and Business Education
Learnings System (NOBELS)" (1970, p. 3), held that "the
market for job preparation is an increasing market
influenced by higher than average replacement and estimated
increase in numbers and proportion of the total labor
force".

In "Development of Task Performance Statements for a
New Office and Business Education Learnings System
(NOBELS)" (Lanham, Lanham, Herschelmann, & Cook, 1972,
p. iii) it was advanced that "public pressures for

accountability in education, movements toward career education, a strengthening of Federal and state staffing and supporting of career education thrusts . . . continue the necessity for revitalizing office occupation preparation with current and job-related task performances, the major output of this revision of NOBELS".

The position, taken by the author in this study, was that instruction in business and office education does need to be improved, that NOBELS does present definite possibilities for improving that education, and that this study does constitute a worthwhile beginning on the application of NOBELS in a very practical situation.

The Problem, then, for the purposes of this study, was one of determining the means preferred by employees and by their employers for recording and reporting the tasks and the steps involved in each of these tasks which are performed by these employees who are engaged in local general insurance agencies.

Review of the Literature

There was undertaken, in the course of the study, an extensive review of literature pertaining to the approaches which have been made to the wh   problem of improving instruction in business and office education. No attempt has been made to include refer ces other than those which bear directly on the subject. Selections, from the literature reviewed, have been restricted to those which follow.

NOBELS

1. It was in "A Taxonomy of Office Activities for Business and Office Education" (Huffman et al., 1968) that it was reported that provision had been made "for an orderly and systematic way of looking at office activities in the operating, interacting, and managing dimensions" (p. iii); however, it was then conceded that the Taxonomy "is a preliminary effort to develop a comprehensive and consistent means of analyzing office activities" (p. 4) and that "it should be considered . . . an initial effort to develop a classification scheme for office activities using action verbs" (p. 5).

The authors of the Taxonomy went on to state that it "was developed within a framework of action verbs" in the belief "that the verb in a sentence that describes behavior is the crucial element in preparing a behavioral objective" and that, "since the Taxonomy is to be used for the writing of performance goals", "the verbs will provide for the action statements needed in the goals" (p. 11).

It was noted that new instruction "is needed to prepare young people to meet current and emerging requirements of the office" (p. 3) and that information gathered through this method of analysis "can be used as a basis for the development of realistic performance goals" (p. iii). What were held to be the Objectives of the Taxonomy were set out on page 4 and are as follow:

1. To provide systematic guidance for the observation and

analysis of office activities. . . . .

2. To provide a common language for describing office activities. . . .

3. To provide a basis for consolidating data from many locations and occupations. . . .

4. To provide for writing performance goals. . . .

The position, taken by the authors of the Taxonomy, was that, with a properly selected list of verbs, "an all-inclusive list of office tasks and activities can be developed by adding nouns, adjectives, and phrases to the verbs" and that any one verb "may be used to describe many tasks by simply changing the descriptors attached", thus enabling "a simple framework of verbs" to "serve as a medium for describing all office tasks and activities" (p. 11).

Another reason given for the use of verbs, "as the basis of the Taxonomy", "is their relative constancy in meaning". It was held that, since verbs represent "fundamental processes that will remain unchanged although procedures in their performance may change", "a vocabulary of verbs provides both an action and a constant base for describing office tasks and activities" (p. 11).

There followed the "collection of verbs" and the first group of verbs "was obtained from the list of office activities that had been recorded during the review of secondary sources and office visits", with a total for the final group of verbs of "approximately 2,000 by the time the review of secondary sources was completed". The verbs were

then studied in an effort "to uncover sets, patterns, and classes into which the verbs might be grouped" (p. 12). After intensive study and analysis, what were termed "Primary Division Verbs" were grouped to form the "Operating", "Interacting", and "Managing" Domains. "After the three domains and the primary divisions of each of the domains had been determined, secondary divisions were established for each of the primary divisions to indicate distinctive ways in which the action of the primary verb might be carried out. . . . Each secondary division is concluded by the use of a category classified as 'other.' This category creates an open-ended taxonomy to which verbs may be added if necessary" (p. 14).

Primary Division Verbs, together with the definition of each of these Verbs, which Verbs go to make up the three Domains, were set out on pages 25-26 and are as follow:

<u>Operating Domain</u>

Arranging:	putting into an order or system
Calculating:	computing new data from present data by some mathematical process or combination of processes
Collecting:	securing data, supplies, or equipment
Comparing:	examining in order to determine similarities and differences
Composing:	creating and developing written information
Indexing:	determining and indicating categories to which materials may be assigned
Manipulating:	performing simple manual or mechanical operations
Modifying:	making changes
Purging:	destroying or eliminating
Recording:	placing data or information on paper, film, tape, or other media
Storing:	setting aside for future use

Transmitting: giving out or sending out
Verifying: determining the accuracy or
inaccuracy of data

Interacting Domain
Communicating: oral means of requesting,
giving, receiving, or discussing
information
Assisting: morale building, guiding, and
training-type activities
performed by office workers
Coping: using strategies to deal with
threat: positive action to
overcome; negative action to
overcome; action to escape; no
action

Managing Domain
Planning: mental determining of a course
of action
Organizing: establishing the work environ-
ment
Actuating: stimulating and maintaining of
performance and effecting
corrective measures
Controlling: evaluating work performed and
the determination and recommen-
dation of corrective measures
based on feedback

While it was conceded that the Taxonomy represents only
a start on the whole problem of reconciling what should be
taught and how it should be taught, with what is required in
the world of office work, it was the hope of the authors of
the Taxonomy that, ultimately, "conditions under which each
task is to be performed and the criteria of successful
achievement will be added to each task description to
develop prototype performance goals" (p. v). Following this
lead, it very well might become a matter of employing the
Primary Division Verbs, in each of the Domains, as concepts
or clusters of skills to be taught. Once performance goals
were to have been developed for these Primary Division

Verbs, it very well might become a matter of employing task

analysis to assist in determining the optimum conditions for

learning the various tasks the student must learn to

perform.

2. It was in "Development of Performance Goals for a

New Office and Business Education Learnings System (NOBELS)"

(Lanham, Herschelmann, Weber, & Cook, 1970) that it was

acknowledged that "NOBELS Action Verba and Synonyms", on

which the "Performance Goals" reported by the authors were

based, were "a direct outgrowth of the Taxonomy" (p. 8);

however, the authors did go on to state that an attempt had

been made "to classify steps of task performance by the

taxonomy" but that they had "found the scheme not usable"

(p. 47) for reasons which were set out on page 48 and which

are as follow:

> 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 classifications 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 authors concluded by stating that "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" (pp. 48-49).

It was to meeting the objectives of "developing a

sampling design for collecting data from office work

stations", of "developing a procedure and a training program

for data collection", of "converting field data to

performance goals: primary (terminal), interim, and

prevocational", of analyzing the data collected", and of

"reporting a master list of performance goals", that the

study was addressed. That "trends and concepts from

emerging office occupational practices" still have to be

isolated and converted to performance goals" was also

acknowledged by the authors

On the basis of 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". It was concluded that, for
purposes of analysis, "grouping by synonym rather than
developing a taxonomic hierarchy of generic terms" was
desirable. Accordingly, "an alphabetic listing of 108 verbs
used to code steps of basic tasks" and corresponding
synonyms, "together with the current recommended listing of
57 verbs and their synonyms recommended as a result of our
experience", were developed (p. 49).

Sixteen major verbs were subsequently developed and
served to classify all action verbs under the divisions of
(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 work", and (3) disposition, i.e.,
"what the worker does with the product or output generated".
These sixteen "major verbs" and corresponding "action verbs
of steps subsumed under these sixteen major verbs", and, in
parenthesis, "synonyms of a NOBELS verb or a specialized
verb used" (p. 55), were set out on page 56 and are as
follow:

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

It was these same verbs which were employed in this study in Figure 2, "The First Process Chart Employed".

The authors (Lanham, Herschelmann, Weber, & Cook, 1970) made no claim "that the report represents a final set of performance goals" (p. 24). It was acknowledged that much remains to be done with NOBELS; however, the authors did express the belief that it should be possible to derive immediately substantial benefit from making use of the "tentative list of universals, i.e., behaviors that are

fundamental to the successful performance of most office tasks" which they had formulated (p. 38). A consideration of these "fundamentals" is undertaken in Chapter II entitled "Results".

3. It was in "Development of Task Performance Statements for a New Office and Business Education Learnings System (NOBELS)" (Lanham, Lanham, Herschelmann, & Cook, 1972) that it was conceded that "a claim to the development of 'performance goals' as in the original report was in error" and that what had been termed "performance goals" "has been changed in the revised materials to the more modest designation of generalized task statements or performance specifications from which performance goals will need to be developed". The authors went on to state that, "to be sure, the competencies and performances attached to an office preparation program should be extracted from the actual performance of office work" and that "a generalized task statement even in its detailed form is at most a generalization of important steps taken to perform office tasks and not the specific performance expected of a particular office worker" (p. 309).

Products, generated in the course of that study and incorporated in the covering report, were set out on page 53 and are as follow:

1. Reclassification and reordering of task statements according to the number of individual task sheets represented in the interview data.

2. A compilation of all task statements separate from the detailed presentation of steps for their

performance, flowcharts, and supplementary information.

3. A list of task statements encompassing the highest number of individual task sheets.

4. List of task statements drawn from the medical and banking fields.

5. A concordance of verbs and objects of task statements compiled and cross-referenced.

6. Coding and notation system for all task statements and their listings for cross-referencing.

Fifty-seven verbs had been identified in the original report (Lanham, Herschelmann, Weber, & Cook, 1970, pp. 329-339) and these same verbs were identified in this report (Lanham, Lanham, Herschelmann, & Cook, 1972, pp. 348-358). These verbs bear directly on the verbs employed in this study. These verbs, synonyms of these verbs, and definitions of these verbs are as follow:

add	to increase in number, size, or importance
adjust change, set	to bring to a more satisfactory state
answer	to speak, write, or reply
arrange block in, block out, collate, design, devise, flowchart, negotiate, plan, schedule, straighten	to put into correct or desired order
attach affix, clip, staple	to make fast or join
call page, telephone	to communicate or utter
check examine, inspect	to inspect for satisfactory condition
code	any system of symbols for meaningful communication
collect accumulate, assemble, batch, gather	to bring together into a band or group
compare balance,	to examine for the purpose of discovering resemblances or

match,   differences
reconcile
<u>compile</u>   to assemble and put in logical
list,   order
make up, set up
<u>complete</u>   to fill, make entire, perfect
fill in, fill out
<u>compute</u>   to determine by mathematical means
calculate,   or arrive at an answer
convert, count, divide, extend, figure, multiply,
subtract
<u>correct</u>   to change in order to set right
change, debug, fix, update, upgrade
<u>deliver</u>   to give, transfer, yield
give,   possession of
hand to, present, submit
<u>destroy</u>   to put out of existence
discard, purge, throw away
<u>determine</u>   to settle a question or come to a
choose,   decision
decide, evaluate, grade, identify, score, select,
test
<u>direct</u>   to assist by giving advice,
assist,   instruction, and supervision
describe, explain, help, instruct, oversee,
provide, show, supervise, supply, take, teach,
witness
<u>discuss</u>   to discourse about, examine and
confer,   pass on
consult, interview, talk with
<u>distribute</u>   to deal out, to dispense
give to, hand
<u>duplicate</u>   to make a copy of
copy, mimeograph, photocopy, Xerox
<u>file</u>   to arrange in particular order for
                 preservation and reference
<u>greet</u>   to meet and give salutations
welcome
<u>hold</u>   an order or indication that some
keep,   action is to be delayed
maintain, store
<u>inform</u>   to make known or give instruction
advise, alert, notify, quote, reiterate, relate,
remind, repeat, signal, suggest, tell
<u>insert</u>   to put into or inject
put in, stuff
<u>issue</u>   to give out or make available
assign, disburse, pay
<u>locate</u>   to determine the place of, to seek
find,   out and find
go thru, look for, search, trace
<u>mail</u>   to send postal matter by mail
<u>note</u>   to take due or special notice of
annotate, make note of, notate

obtain get, pick up, secure	to gain or attain possession of
open	to make available for use
operate activate, deactivate, feed, load, move, put in, start, thread, turn off, turn on	to cause to function; to bring about; effect
package bind, tie, wrap	to enclose in a package or protective covering .
place put	to cause to rest or lie, to dispose, to put into
proofread	to read and mark corrections in matter
pull extract, take from	to remove or cause be removed from a place (file)
punch keypunch	to record data by perforating a card or tape
receive take	to take in, to admit, to accept
record enter, journalize, log, post	to set down in writing
refer consult, look at, look on, look up, relay, turn over	to send or direct for information
remove delete, erase, take off	to change or shift location, take off or away
request ask, inquire	the act of asking for something
return give back	to go back or send back
run tape	to operate a tape machine, e.g., adding machine
run through	a term used for putting data into a computer and operating
scan read, review	to make an intensive examinati of, to check
send forward, route, transmit	to cause something to be conveyed or transmitted by an agent to a destination
sort break down, index, separate	to arrange according to characteristics
stamp	to impress or mark with a device
take dictation	to write dictated material, usually in shorthand
total	a result of addition, a summation of factors
transcribe	to copy dictated materials in common, legible language

<u>transfer</u>	to pass from one to another
connect	
<u>typewrite</u>	the act of using a typewriter
	(type)
<u>verify</u>	to confirm, to prove to be true
confirm	
<u>write</u>	to form or trace symbols on paper

compose, draw, handwrite, initial, label, make up,
mark, sign, sketch, tag

Finally, it was stated that one early decision which
had been made was "that clarity was improved by visualizing
similar task steps through flowcharting". The authors went
on to state that, accordingly, "in the presentation to
follow, a flowchart of a performance goal is included when
the process of steps involves more than a straightline or
sequential flow without alternative steps or decision
points" (p. 54).

Task Analysis and Process Charts

With respect to "Task Analysis", Pipe, in
"Objectives--Tool for Change" (1975), stated that "task
analysis is a way of getting specific about what goes on in
any useful work", that "task analysis begins with breaking
down somebody's job into 'tasks'--all the distinct, logical,
necessary facets of the job", and that "a task occupies a
significant part of a worker's time and is performed for
some purpose, by some method(s), according to some standard
of speed, accuracy, or quality". The author went on to
state that "each task is normally analyzed into its separate
elements, one or more of them" and that "an element is the
smallest step into which it is practicable to subdivide any
work activity without getting involved in analyzing separate

movements and mental processes" (pp. 36-37).

It was in "Objectives for Instruction and Evaluation"
(Kibler, Cegela, Barker, & Miles, 1974) that the authors
stated that "the teacher may also find Gagne's (1970)
behavioral analysis (also called task analysis) technique
useful in preparing objectives for instructional units that
primarily focus on complex cognitive or psychomotor skills".
The authors agreed with Gagne "that mastery of subordinate
skills is necessary before mastery of superordinate skills
can be achieved" and noted that "Gagne does provide a unique
and useful method for determining what are the necessary
prerequisite skills for a given terminal objective". The
authors went on to state that "the method, called behavioral
analysis, is accomplished by beginning with the terminal
objective for a unit of instruction . . . and working
'downward' to the necessary behaviors for the unit of
instruction", this being accomplished by determining what a
student must already know how to do in order to learn a
particular skill (p. 118).

Then, too, De Cecco, in "The Psychology of Learning and
Instruction: Educational Psychology" (1968), stated that
chief purpose of task analysis is to help the teacher
determine the optimum learning conditions for the various
as the student must learn to perform", its having been
acknowledged that "the teacher must not only describe but
also analyze the tasks he expects the student to perform"
(p. 45).

Task analysis, then, as employed in this study, constituted the means by which the tasks, reported by employees engaged in local general insurance agencies, were broken down so these tasks and the steps involved in each of these tasks might be recorded and reported. It remains for task analysis to be applied to the instruction of these and other employees, but this is quite beyond the purposes sought to be achieved through this study.

With respect to "Process Charts", Archer (1967), in "An Introduction to Canadian Business", defined a process chart as "a written summary of the various production operations, storages, and inspections which take place in a manufacturing cycle". Archer went on to state that this summary "enables a person to see more readily any weaknesses in the present system, such as unnecessary movement of materials and unnecessary storage" (p. 348).

Terry (1970), in "Office Management and Control", included the process chart as one of the "common charts of office work simplification" and claimed that, generally, it serves "to provide the facts for a work simplification project in a clear and comprehensive manner". Terry went on to state the 'specifically, work simplification charts serve the following purposes: (1) assist in securing, organizing, and visualizing the facts, (2) aid in analyzing and evaluating these facts, (3) help formulate an improved procedure, and (4) assist in convincing others of the value of the improved procedure" (p. 79).

In "Systems Analysis for Effective Administration",
Barish (1951) claimed the process chart to be "a very
convenient and useful device" in that it records "the
detailed systems data in readily understandable manner so
that they may be analyzed to eliminate unnecessary steps or
to change the order in which they are done to reduce effort,
fatigue, and time". Barish equated both "process" and
"procedure" to "a relatively simple activity or a small
portion of an activity which is performed within one
organizational unit" and went on to define the process chart
as "essentially a detailed, chronological record of the
successive steps in a procedure" (p. 87).

The process chart, then, was selected for employment in
this study for its versatility and ease of use in recording
and reporting the tasks performed by employees engaged in
local general insurance agencies. That the authors of
"Development of Performance Goals for a New Office and
Business Education Learnings System (NOBELS)" (Lanham,
Herschelmann, Weber, & Cook, 1970, p. 54), and that the same
authors in "Development of Task Performance Statements for a
New Office and Business Education Learnings System (NOBELS)"
(Lanham, Lanham, Herschelmann, & Cook, 1972, p. 88),
recognized the utility of flowcharting, is borne out by
their statements that "one early decision was made that
clarity was improved by visualizing similar task steps
through flowcharting" and that a flowchart of a performance
goal (1970) or task (1972) "is included when the process of

steps involves more than a straightline or sequential flow
without alternative steps or decision points".

Nature of the General Insurance Agency

Schuman, in "Portfolio of Accounting Systems for Small
and Medium-Sized Businesses" (M. D. James, Ed., 1968,
p. 688), stated the nature of the general insurance agency
to be as follows:

> The insurance agency lives and breathes as a
> service business, and therefore it is primarily a
> sales organization. The public looks to the
> insurance agent as an individual who is offering
> personal, professional assistance in the ways and
> workings of insurance, and therefore he looks to
> the agent to relieve him of the burden of securing
> the proper coverage. Policyholders will buy
> insurance because they have confidence in the
> salesman. Such confidence comes about because
> they feel their agent is knowledgeable and ready
> to perform services for their benefit. It can,
> therefore, be said that the strength and purpose
> of the service he performs are similar to the
> efforts of a consultant building tomorrow's roads.
>
> The areas that will be considered fall into
> various categories and into degrees of importance.
> The insurance agent might be called upon to
> establish a portion for the protection of loss due
> to fire, casualty, theft, and various other
> hazards of everyday life. He may also help in the
> molding of the client's estate planning including
> the proper setup for tax advantages.
>
> This type of relationship creates a much closer
> business contact than would be expected with the
> normal sales-customer association.

The importance, attached by Schuman to the sales and
service aspects of the general insurance business,
particularly as these bear on the employees in local
general insurance agencies, was identified in the course of
this study. More information on these aspects of the
general insurance business is provided in Chapter IV

entitled "Discussion".

Purposes of the Study

The Purposes of the Study were two in number and are as follow:

1. the determination of which combination of process chart and list of verbs is preferred, by the employees and employers canvassed, for employment in recording and reporting the tasks and the steps involved in each of these tasks which are performed by employees in the conduct of everyday business in local general insurance agencies.

2. the provision, to each employer who participated in the study, of the combination of process chart and list of verbs found to be preferred generally by the employees canvassed, for each task reported by that person's employees.

With respect to the first Purpose stated for the study, namely "the determination of which combination of process chart and list of verbs is preferred, by the employees and employers canvassed, for employment in recording and reporting the tasks and the steps involved in each of these tasks which are performed by employees in the conduct of everyday business in local general insurance agencies", it is contended that this Purpose bears directly on the Problem stated for this study. This was borne out by the employees and employers canvassed in the course of the study.

Related to the first Purpose stated for the study was the First Question to be Answered which is: Is there any one combination of process chart and list of verbs preferred

by the employees canvassed on the basis of suitability for employment in recording and reporting the tasks and the steps involved in each of these tasks which they perform? Related to it was the <u>Second Question to be Answered</u> which is: If there is one combination of process chart and list of verbs preferred by the employees canvassed, is this same combination preferred by their employers who were also canvassed in the course of the study?

With respect to the second Purpose stated for the study, namely "the provision, to each employer who participated in the study, of the combination of process chart and list of verbs found to be preferred generally by the employees canvassed, for each task reported by that person's employees", it is contended that this Purpose should benefit these employers by pointing up problem areas in their day-to-day operations so these might be corrected and by providing the means by which new employees might be readily trained. This was also borne out by the employees and employers canvassed in the course of the study.

<u>Assumptions and Delimitations</u>

It has been assumed that conclusions based on the data generated in the course of the study were not adversely affected by not requiring that all tasks performed by an employee be reported, if these were reported at all, and by accepting, in the absence of any report of tasks performed by that employee, that employee's assessment of the four combinations of process chart and list of verbs for the six

tasks set out in Appendix 5.

Also, it has been assumed that literature originating in the United States does apply, to a significant, if somewhat limited, extent, to the Canadian scene. Certainly, there exists a number of instances in which application is not appropriate; however, it has been assumed that, for the most part, the views of authors from the United States are relevant for the purposes of this Study.

With respect to Delimitations, the Population, on which the study has been based, is restricted to that set out under "Population and Sample" in Chapter II. No attempt has been made to generalize conclusions from this study to any population other than that Population.

Also, the study has been restricted to "local general insurance agencies". That conclusions based on it very well might be extended to other businesses would have to remain to be determined.

Definition of Terms

NOBELS--the acronym for "New Office and Business Education Learnings System" as employed by Huffman et al. (1968), by Lanham, Herschelmann, Weber, and Cook (1970), and by Lanham, Lanham, Herschelmann, and Cook (1972).

Local general insurance agencies--businesses identified as handling general insurance in the "Extended Flat Rate Calling to Alberta Government Telephones Areas" section of the "Edmonton & Vicinity Phone Book" which became effective on March 7, 1976 but which was replaced by the one which

became effective on March 6, 1977.

Task--a process, a procedure, "a relatively simple activity or a small portion of an activity which is performed within one organizational unit" (Barish, 1951, p. 87) and which has both a beginning and an end as set out in Figures 2 and 3 employed in this study.

Process chart--as defined by Barish (1951), "a detailed, chronological record of the successive steps in a procedure" (p. 87) and as illustrated by Barish on page 92.

Suitability--suitability for employment in recording and reporting the tasks and the steps involved in each of these tasks which are performed in the course of everyday work in local general insurance agencies.

CHAPTER II

METHOD

Research Design and Statistical Test

Van Dalen, in "Understanding Educational Research"
(1966, p. 206), included "survey studies" as one category of
"descriptive research" and, on pages 207-211, went on to
describe "job analysis" under that category. It is with
"job analysis" or, as set out in the title of this thesis,
with "task analysis", that this study was concerned.
Alternatively stated, the research design employed in this
study may be described as being "job analysis", which falls
under the category of "survey studies", which category falls
under "descriptive research", all as set out by that author.

Van Dalen claimed that "an analytical knowledge of job
components helps administration", among other things, to
"detect weaknesses, duplications, or inefficiency in the
present work procedures" and "to set up training programs
and prepare instructional materials for prospective and
inservice employees". That it would be practicable to
employ directly, in an instructional setting, the results of
the analysis undertaken in this study, would have to remain
to be investigated. A more extensive consideration of this
whole matter is included under "Recommendations for Further
Study" in Chapter IV entitled "Discussion".

With respect to "Statistical Test", individual t tests
were employed to determine any significant difference

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between the ratings assigned each of the four combinations
of process chart and list of verbs by the employees
canvassed in the course of the study.

Population and Sample

It had been decided, even before the study was begun,
that local general insurance agencie: should constitute the
Population. This was done because of the author's
familiarity with general insurance operations, because there
exists considerable diversity in the tasks to be encountered
in these general insurance agencies, and because it was
believed that it would be easier to obtain the co-operation
of the management of local general insurance agencies than
it would be to obtain the co-operation of the management of
general insurance agencies situated in larger centres of
population.

Accordingly, the Population, from which the Sample
employed in this study was drawn, was comprised of all
businesses listed as handling insurance in the "Extended
Flat Rate Calling to Alberta Government Telephones Areas"
section of the "Edmonton & Vicinity Phone Book" which became
effective on March 7, 1976 but which was replaced by the one
which became effective on March 6, 1977. There were 23
businesses so listed and which constituted the Population
for the purposes of this study.

It had been hoped that the Sample and the Population,
from which it would be drawn, would be one and the same.
This was found not to be possible as six businesses declined

to participate in the study, as three businesses handled
only life insurance, and as two businesses had gone out of
business.

The Sample, then, on which the results reported for
this study were based, was comprised of those businesses
which had "insurance" mentioned in the telephone directory
listings, which had been found to handle general insurance,
and which had agreed to participate in the study. There
were 12 such businesses which constituted the Sample for the
purposes of this study.

Appendix 4 provides information on how it came about
that 24 employee-respondents and nine employer-respondents
eventually participated in the study. Also included in
Appendix 4 is a tabulation of findings based on data
generated in the course of the study.

Instrumentation

Figure 1 sets out "Information with Respect to Employee
and Employer". One of these forms was completed for each
employee involved in the study whereas only one such form
was completed for each employer no matter the number of that
person's employees so involved. Figure 1 is shown on the
following page.

Figure 2 sets out "The First Process Chart Employed"
and Figure 3 sets out "The Second Process Chart Employed".
These Figures are shown on subsequent pages.

Table 1 sets out "The First List of Verbs Considered by
Employees" and Table 3 sets out "The Second List of Verbs

Date __/__/77

Figure 1: Information with Respect
to Employee and Employer

<u>With respect to Employee</u>:

Identification number __

Name _____
Title _____
Telephone number ___-___
Age last birthday __ years
Educational background _____
_____
_____

Responsible for __ Employees
With this Employer __ years
In this line of business __ years

<u>With Respect to Employer</u>:

Identification number(s)
of Employee(s) reported
for this Employer

Name _____
Address _____
_____
_____

Name of
contact person _____
Title _____
Telephone number ___-___
In this line of business __ years

<u>Other Information</u>:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Identification number __   Page __ of __ pages
    Figure 2:   The First Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task __--rank __

_____
                                Step in task

<u>Acquisition</u>--receive _____
<u>Process</u>--check, compile, compose, _____
      compute, determine, _____
      duplicate, operate, _____
      record, sort, type _____
<u>Disposition</u>--call, deliver, _____
        file, inform, mail _____
_____

<u>Acquisition</u>--receive _____
<u>Process</u>--check, compile, compose, _____
      compute, determine, _____
      duplicate, operate, _____
      record, sort, type _____
<u>Disposition</u>--call, deliver, _____
        file, inform, mail _____
_____

<u>Acquisition</u>--receive _____
<u>Process</u>--check, compile, compose, _____
      compute, determine, _____
      duplicate, operate, _____
      record, sort, type _____
<u>Disposition</u>--call, deliver, _____
        file, inform, mail _____
_____

<u>Acquisition</u>--receive _____
<u>Process</u>--check, compile, compose, _____
      compute, determine, _____
      duplicate, operate, _____
      record, sort, type _____
<u>Disposition</u>--call, deliver, _____
        file, inform, mail _____
_____

<u>Acquisition</u>--receive _____
<u>Process</u>--check, compile, compose, _____
      compute, determine, _____
      duplicate, operate, _____
      record, sort, type _____
<u>Disposition</u>--call, deliver, _____
        file, inform, mail _____

Identification number __   Page __ of __ pages

Figure 3:   The Second Process Chart Employed

Task charted _____

Task began with _____

Task ended with _____

Estimated percentage of time spent on task __--rank __

sion
  .   Acquisition
  .   .   Process
  .   .   .   Disposition
  .   .   .   V   _   _____Step in task_____

Considered by Employees". Table 2 sets out "The List of Verbs Employed by the Author in Completing the Process Charts". These Tables are shown in Appendix 1.

Figures 4, 5, 6, and 7 were used by employees to rate each of the four combinations of process chart and list of verbs as to suitability for employment in recording and reporting the tasks and the steps involved in each of these tasks which they perform in the course of their everyday work. Figure 8 was employed to collect each employee's ratings so these might be analyzed. Provision, by means of paired comparisons, was made to ensure consistency between the individual ratings assigned on Figures 4, 5, 6, and 7 and the overall ratings assigned on Figure 8. No attempt was made to influence any employee's ratings. All that was sought to be accomplished was to have their individual ratings be consistent with their overall ratings. These Figures are shown in Appendix 2.

Figure 9 sets out "The Form used by Employers to Rate Each of Four Combinations of Process Chart and List of Verbs". Figure 9 is also shown in Appendix 2.

Data Collection Technique

Appendix 3 sets out the local general insurance agencies involved in the study, that is, the "Businesses Identified as Handling General Insurance and Which Participated in the Study", and "Letters Addressed to Employees and Employers in the Course of the Study".

"The First Regular Letter Addressed to Employers"

served to introduce the author and solicited the
participation of these employers in the study. That there
should be certain benefits accruing to these employers, from
participating in the study, was emphasized in this letter.

"The First Regular Letter Addressed to Employees" made
mention of the fact that   r employers had agreed to
participate in the study and suggested that there should be
certain benefits accruing to them, the employees, from
participating in the study. Enclosed with this letter were
Figure 1 and Table 1. Requested to be returned or submitted
to the author were completed Figure 1, a list of their tasks
and the estimated percentage of time spent on each of these
tasks and the steps involved in each of these tasks, and
certain other information with respect to these tasks.

"The Second Regular Letter Addressed to Employees"
requested that each employee rate each of four combinations
of process chart and list of verbs on the basis of
suitability for employment in recording and reporting the
tasks and the steps involved in each of these tasks which
that employee performs or which other employees perform in
the course of everyday work. The employee was then
requested to provide overall ratings of these combinations,
all the while making certain that the overall ratings were
consistent with the individual ratings. Enclosed with this
letter were Table 3, four combinations of process chart and
list of verbs for one of the tasks reported by that employee
or for each of six tasks selected at random from "SIC

Performance Goals"* in "Development of Performance Goals for a New Office and Business Education Learnings System (NOBELS)" (Lanham, Herschelmann, Weber, & Cook, 1970, pp. 58-104), Figures 4, 5, 6, and 7 required for individual ratings of these combinations, and Figure 8 required for overall ratings of these same combinations. Requested to be returned to the author were these combinations of process chart and list of verbs, and completed Figures 4, 5, 6, 7, and 8.

"The Special Letter Addressed to an Employee Should the Overall Ratings Not be Consistent with the Individual Ratings Reported by that Employee" provided such employee with the opportunity again to consider both individual and overall ratings of the four combinations of process chart and list of verbs prepared for one of the tasks reported by that employee or for each of six tasks reported by other employees. Enclosed with this letter were the combinations of process chart and list of verbs, Figures 4, 5, 6, and 7, and a new Figure 8. Requested to be returned to the author were the combinations of process chart and list of verbs, the previously completed Figures 4, 5, 6, and 7, and the newly completed Figure 8.

"The Second Regular Letter Addressed to Employers" requested that each employer complete Figure 1 and then rate each of four combinations of process chart and list of verbs (on the basis of suitability for employment in recording and

*Process charts of these six tasks appear in Appendix 5.

reporting the tasks and the steps involved in each of these
tasks performed by employees in the course of everyday work)
after having considered each task of a number of tasks
selected at random from all the tasks reported by all the
employees canvassed or each of six tasks selected at random
from "SIC Performance Goals". Enclosed with this letter
were Figure 1, the four combinations of process chart and
list of verbs for the tasks selected for consideration,
Figure 9 required for overall ratings of these combinations,
and Tables 1 and 3. Requested to be returned to the author
were completed Figures 1 and 9, and the combinations of
process chart and list of verbs for the tasks selected for
consideration.

In instances, where it was not possible to obtain a
list of the tasks and the estimated percentage of time spent
on each of these tasks and the steps involved in each of
these tasks, and certain other information with respect to
these tasks, from an employee, that employee was contacted
in person. That employee was requested, after having
considered the four combinations of process chart and list
of verbs selected at random from "SIC Performance Goals", to
complete Figure 1, Figures 4, 5, 6, and 7, and Figure 8. In
similar fashion, employers were contacted in person and
requested to complete Figures 1 and 9. Information,
including "certain other information with respect to these
tasks", which was obtained by interview, was treated in the
same manner as information obtained by correspondence.

"The Third Regular Letter Addressed to Employees"
advised that their participation in the study was at an end
and thanked them for their co-operation.

"The Third Regular Letter Addressed to Employers"
advised that, except for providing them with process charts
embodying the combination of process chart and list of verbs
found to be preferred for employment in recording and
reporting the tasks and the steps involved in each of these
tasks which are performed in the course of everyday work,
which process charts are to be completed for the tasks
reported by their employees, the study had been completed.
This letter went on to thank them for their co-operation.

Data Treatment and Analysis

With respect to treatment of the data received from the
employees who participated in the study, Table 2, entitled
"The List of Verbs Employed by the Author in Completing the
Process Charts", made use of the verbs from Tables 1 and 3
to complete Figures 2 and 3. Combinations of process chart
and list of verbs were prepared by the author and subjected
to the scrutiny of both the employees and their employers.
These four combinations were then rated as to suitability,
as defined for the purposes of the study, and these ratings
were recorded. Also recorded was information with respect
to "Hardware", "Software", "Supplementary steps", "Reported
criteria", and "Educational cues" as reported by the
employees and information with respect to "Reported
criteria" as reported by their employers. This information

is presented in Chapter III entitled "Results".

With respect to analysis of the data generated in the course of the study, individual t tests were employed to determine any significant difference between each of the ratings of the four combinations of process chart and list of verbs. A ratio scale of measurement had been introduced, in the individual rating forms, namely Figures 4, 5, 6, and 7, to make possible, and did make possible, direct comparison of individual ratings of these combinations on the basis of suitability for employment in recording and reporting the tasks and the steps involved in each of these tasks which are performed in the course of everyday work in local general insurance agencies.

CHAPTER III

RESULTS

The owners or managers of 10 local general insurance agencies, which agencies are set out in Appendix 3 under "Businesses Identified as Handling General Insurance and Which Participated in the Study", had agreed to participate, or had agreed to have their employees participate, in the study. Nine of these persons actually did participate in the study as employers.* They completed forms rating the four combinations of process chart and list of verbs as to suitability for employment in recording and reporting the tasks and the steps involved in each of these tasks which are performed in the course of everyday work in local general insurance agencies.

Committed to the study, by their employers, were 28 employees. Actually participating in the study were 22 of these employees and the proprietors of two one-person local general insurance agencies, a total of 24 persons who rated the combinations of process chart and list of verbs as employees. The difference between the number of employees originally scheduled to participate in the study and the number of employees actually participating in the study was attributable to staff turnover without there having been full replacement of staff no longer with an employer, to absence of staff on vacation, and to failure, on the part of

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*Details of participation in the study appear in Appendix 4.

one employee, to complete the required rating forms.

Also appearing in Appendix 4 are particulars of
findings reported for this study. These are set out in
tabular format in Appendix 4. These findings, reported in
narrative format, follow.

The first choice, of 22 employees, or 92% of the
employees, and based on suitability for employment in
recording and reporting the tasks and the steps involved in
each of these tasks which are performed in the course of
everyday work in local general insurance agencies, was the
combination of Figure 3 and Table 3. One employee selected
the combination of Figure 3 and Table 1 as first choice, and
one employee selected the combination of Figure 2 and
Table 3 as first choice.

The second choice, of 18 employees, or 75% of the
employees, and based on the same criterion, was the
combination of Figure 3 and Table 1. Four employees, or 17%
of the employees, selected the combination of Figure 2 and
Table 3 as second choice. One employee selected the
combination of Figure 3 and Table 3 as second choice, and
one employee selected the combination of Figure 2 and
Table 1 as second choice.

The third choice, of 18 employees, or 75% of the
employees, and based on the same criterion, was the
combination of Figure 2 and Table 3. Four employees, or 17%
of the employees, selected the combination of Figure 3 and
Table 1 as third choice. One employee selected the

combination of Figure 3 and Table 3 as third choice, and
one employee selected the combination of Figure 2 and
Table 1 as third choice.

The fourth choice, of 22 employees, or 92% of the
employees, and based on the same criterion, was the
combination of Figure 2 and Table 1. One employee selected
the combination of Figure 2 and Table 3 as fourth choice,
and one employee selected the combination of Figure 3 and
Table 1 as fourth choice.

With respect to individual t tests, all at the .01
level of significance for a one-tailed test, there being a
critical value of t of 2.807 at 23 degrees of freedom for
this level of significance,* there was determined to be a
significant difference between the mean rating of the
combination of Figure 3 and Table 3, the first choice, and
that of the combination of Figure 3 and Table 1, the second
choice, t in this instance having been determined to be
5.153. There was a significant difference between the mean
rating of the combination of Figure 3 and Table 1, the
second choice, and that of the combination of Figure 2 and
Table 3, the third choice, t in this instance having been
determined to be 4.155. There was a significant dif. rence
between the mean rating of the combination of Figure 2 and
Table 3, the third choice, and that of the combination of
Figure 2 and Table 1, the fourth choice, t in this instance
having been determined to be 6.705.

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*Van Dalen, 1966, p. 465.

The first choice, of seven employers, or 78% of the employers who participated in the study, and based on suitability for employment in recording and reporting the tasks and the steps involved in each of these tasks which are performed in the course of everyday work in local general insurance agencies, was the combination of Figure 3 and Table 3. One employer selected the combination of Figure 2 and Table 3 as first choice, and one employer selected the combination of Figure 2 and Table 1 as first choice.

The second choice, of six employers, or 67% of the employers, and based on the same criterion, was the combination of Figure 3 and Table 1. Two employers, or 22% of the employers, selected the combination of Figure 2 and Table 3 as second choice, and one employer selected the combination of Figure 3 and Table 3 as second choice.

The third choice, of five employers, or 56% of the employers, and based on the same criterion, was the combination of Figure 2 and Table 3. Two employers, or 22% of the employers, selected the combination of Figure 3 and Table 1 as third choice, and two employers, or 22% of the employers, selected the combination of Figure 2 and Table 1 as third choice.

The fourth choice, of six employers, or 67% of the employers, and based on the same criterion, was the combination of Figure 2 and Table 1. One employer selected the combination of Figure 2 and Table 3 as fourth choice,

one employer selected the combination of Figure 3 and Table 1 as fourth choice, and one employer selected the combination of Figure 3 and Table 3 as fourth choice.

Finally, the ranking of the four combinations of process chart and list of verbs, by the employees and by their employers who participated in the study, on the basis of suitability as defined for the purposes of the study, was determined to be the same.

It was in "Development of Task Performance Statements for a New Office and Business Education Learnings System (NOBELS)" (Lanham, Lanham, Herschelmann, & Cook, 1972) that it was reported that "this separate listing of 373 task statements represents the principal output of NOBELS" (p. 66). Then, on page 87, the authors, when explaining "detailed task statements", went on to say that statements of "detailed summary performance tasks" include (1) a listing of "hardware", that is, materials of wood, metal, or harder consistency like machines used, (2) a listing of "software", that is, the programs, policy manuals, catalogues, or references used, (3) "educational cues", that is, the suggestions of the task writers (all classroom practitioners) of implied instructional key elements for teaching, (4) "supplementary steps", that is, alternatives of performance or steps performed by a few workers, and (5) "reported criteria", that is, requirements of successful performance as quoted directly from the task sheets.

The employees, as set out in "The First Regular Letter

Addressed to Employees", were requested to provide any information they might be able to provide with respect to "Hardware", "Software", "Supplementary steps", and "Reported criteria", and, should they perceive any of these, to provide information on "Educational cues" which were defined as "suggestions on implied instructional key elements for teaching". The employers, as set out in "The Second Regular Letter Addressed to Employers", were requested, when completing Figure 9, to provide any information they might be able to provide with respect to "Reported Criteria" which were defined as "requirements of successful performance" and which they believed to be important in the tasks considered.

The "hardware", reported by the employees who participated in the study, was that identified by Lanham, Lanham, Herschelmann, and Cook in their 1972 report, with only minor differences experienced in the terminology employed. There were no "supplementary steps" reported by these employees. There were no "educational cues" reported, if these were perceived at all, by these employees. The "software", reported by these employees, was that identified in the 1972 report, again with only minor differences experienced in the terminology employed. These employees did attach considerable importance to a thorough understanding of the rate books and related manuals so widely employed in local general insurance agencies, with this importance having been borne out by what their employers had to say about it. The "reported criteria",

reported by both employees and their employers, did not

differ from those identified in the 1972 report.

It was in "Development of Performance Goals for a New

Office and Business Education Learnings System (NOBELS)"

(Lanham, Herschelmann, Weber, & Cook, 1970, pp. 38; 291)

and, a short time later, in "Development of Task Performance

Statements for a New Office and Business Education Learnings

System (NOBELS)" (Lanham, Lanham, Herschelmann, & Cook,

1972, p. 310) that these authors dealt with certain

"universals, i.e., behaviors that are fundamental to the

successful performance of most office tasks" (1970, p. 38).

These "fundamentals of office task performance" (1970,

p. 291; 1972, p. 310) were three in number and are as

follow:

> 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.

It is with the pressing need, of their employees, for

accuracy in all the tasks they perform for their employers,

that the employers, who participated in this study, were so
very much concerned. This was brought out in interview
after interview with these employers. Also brought out in
these interviews with these employers was their substantial
concern for the need, of their employees, to develop
adequate, if not fully satisfactory, communication skills."
Then, too, there was brought out in these interviews, but to
a lesser extent, their concern for the need, of their
employees, to possess computational skills at least adequate
for the many tasks these employees are required to perf n
in the course of their everyday work in local general
insurance agencies.

Finally, as set out in "The Third Regular Letter
Addressed to Employers", it is intended that these employers
be provided with a copy of the combination of process chart
and list of verbs, which combination has been found to be
preferred for employment in recording and reporting the
tasks and the steps involved in each of these tasks
performed by all employees participating in the study, for
each of the tasks each of their employees reported. Six
process charts have been selected at random from those to be
provided to these employers and these process charts appear
on the immediately following pages.

Identification number __2__   Page __1__ of __1__ pages
.   Figure 3:   The Second Process Chart Employed
Task charted __Processing premium payment from policyholder__
Task began with __Receiving premium payment__
Task ended with __Destroying copies of premium notice, etc.__
Estimated percentage of time spent on task __5__--rank __6__

__Decision__
.   __Acquisition__
.   .   __Process__
.   .   .   __Disposition__
.   .   .   .   Step in task

.   .   .   .   Receives premium payment from
.   .   .   .   policyholder

.   .   .   .   Totals money received

.   .   .   .   Transfers money to cash drawer

.   .   .   .   Pulls premium notice copies

.   .   .   .   Compares amount of payment with
.   .   .   .   amount shown on premium notice
.   .   .   .   copies

.   .   .   .   Obtains cash journal

.   .   .   .   Obtains receipt book

.   .   .   .   Records premium payment in cash
.   .   .   .   journal

.   .   .   .   Issues receipt to policyholder

.   .   .   .   Returns cash journal

.   .   .   .   Returns receipt book

.   .   .   .   Destroys copies of premium notice

                                                    Table 3 Verbs

Identification number _8_   Page _1_ of _1_ pages
       Figure 3:   The Second Process Chart Employed
Task charted _Issuing license plates, etc._
Task began with _Obtaining required forms from customer_
Task ended with _Transferring finished forms to mail-tray_
Estimated percentage of time spent on task _5_--rank _6_

Decision
     Acquisition
            Process
                 Disposition
                           Step in task

Obtains required forms from customer

Obtains required identification and other information

Completes license plate form

Checks own work

Issues the license plates

Obtains renewal form of driver's license from customer

Completes driver's license form, including change of address

Requests payment from customer

Obtains payment from customer

Obtains signature of licensee

Checks all forms to see if completed correctly

Issues the driver's license

Holds payment in cash drawer

Transfers finished forms to mail-tray

Table 3 Verbs

Identification number _13_   Page _1_ of _1_ pages
        Figure 3:   The Second Process Chart Employed
Task charted Issuing postal money order
Task began with Receiving request for money order
Task ended with Returning money order register to drawer
Estimated percentage of time spent on task _5_--rank _8_

Decision
  .   Acquisition
  .   .   Process
  .   .   .   Disposition
  .   .   .   .   Step in task

  .   .   .   Receives request for money order

  .   .   .   .   Obtains blank money order from
                                   cabinet

  .   .   .   .   Stamps amount of money order on
                                   protectograph

  .   .   .   .   Obtains money order register from
                                   drawer

  .   .   .   .   Records amount of money order and
                                   charge in money order register

  .   .   .   .   Requests payment from customer

  .   .   .   .   Obtains payment from customer

  .   .   .   .   Places money in cash drawer and
                                   makes change if necessary

  .   .   .   .   Issues money order

  .   .   .   .   Returns money order register to
                                   drawer

                                                            Table 3. Verbs

Identification number <u>18</u>   Page <u>1</u> of <u>1</u> pages
          <u>Figure 3</u>: <u>The Second Process Chart Employed</u>
Task charted <u>Handling application for household coverage</u>
Task began with <u>Receiving request for coverage</u>
Task ended with <u>Holding application and check for mailing</u>
Estimated percentage of time spent on task <u>15</u>--rank <u>4</u>

<u>Decision</u>
  .   <u>Acquisition</u>
  .   .   <u>Process</u>
  .   .   .   <u>Disposition</u>
  .   .   .   .   <u>Step in task</u>

                                    <u>Receives request for household</u>
                                    <u>coverage from customer at counter</u>

                                    <u>Locates application form and rate</u>
                                    <u>book</u>

                                    <u>Pulls customer's file folder</u>

                                    <u>Obtains particulars of coverage</u>
                                    <u>wanted by the customer</u>

                                    <u>Computes amount of premium</u>

                                    <u>Completes application form</u>

                                    <u>Collects premium from customer</u>

                                    <u>Records payment in receipt book</u>

                                    <u>Records particulars of policy</u>
                                    <u>requested in Application Register</u>

                                    <u>Delivers copy of application and</u>
                                    <u>receipt to customer</u>

                                    <u>Inserts copy of application form</u>
                                    <u>in customer's file folder</u>

                                    <u>Issues check for premium less</u>
                                    <u>commission to insuring company</u>

                                    <u>Files rate book and receipt</u>

                                    <u>Files customer's file folder</u>

                                    <u>Holds application form and check</u>
                                    <u>for mailing to insuring company</u>

                                                      <u>Table 3 Verbs</u>

Identification number 23   Page 1 of 1 pages
          Figure 3: The Second Process Chart Employed
Task charted Handling routine filing duties
Task began with Collecting items from out-baskets
Task ended with Returning file folders
Estimated percentage of time spent on task 70--rank 1

Decision
.   Acquisition
.   .   Process
.   .   .   Disposition
.   .   .   .   Step in task

.   .   .   .   Collects items from out-baskets
.   .   .   .   in office

.   .   .   .   Sorts items to be filed from
.   .   .   .   items to be mailed or delivered
.   .   .   .   to other desks

.   .   .   .   Delivers items to be mailed to
.   .   .   .   mailing table

.   .   .   .   Holds items to be delivered to
.   .   .   .   other desks

.   .   .   .   Sorts items by where they are to
.   .   .   .   be filed

.   .   .   .   Sorts items in each group for
.   .   .   .   filing

.   .   .   .   Pulls required file folders

.   .   .   .   Punches each item with two-hole
.   .   .   .   punch

.   .   .   .   Attaches each item in correct
.   .   .   .   file folder

.   .   .   .   Returns file folders

                                                      Table 3 Verbs

Identification number 31   Page _1_ of _1_ pages
        Figure 3:   The Second Process Chart Employed
Task charted Answering telephone inquiry, etc.
Task began with Receiving telephone call
Task ended with Recording and delivering message, etc.
Estimated percentage of time spent on task 45--rank _1_

Decision
        Acquisition
                Process
                        Disposition
                                        Step in task

                                    Receives telephone call

                                    Obtains name of caller and nature
                                    of call

                                    Determines whether or not can
                                    answer

                                    Transfers call (if cannot answer)

                                    Obtains requested information (if
                                    can answer)

                                    Informs caller

                                    Records message

                                    Delivers message

                                                            Table 3 Verbs

CHAPTER IV

DISCUSSION

The Problem, for the purposes of the study, was stated to be "one of determining the means preferred by employees and by their employers for recording and reporting the tasks and the steps involved in each of these tasks which are performed by these employees who are engaged in local general insurance agencies".

The Purposes of the study were two in number and are as follow:

1. the determination of which combination of process chart and list of verbs is preferred, by the employees and employers canvassed, for employment in recording and reporting the tasks and the steps involved in each of these tasks which are performed by employees in the conduct of everyday business in local general insurance agencies.

2. the provision, to each employer who participated in the study, of the combination of process chart and list of v s found to be preferred generally by the employees canvassed, for each task reported by that person's employees.

With respect to the first Purpose stated for the study, namely "the determination of which combination of process chart and list of verbs is preferred, by the employees and employers canvassed, for employment in recording and reporting the tasks and the steps involved in each of these tasks which are performed by employees in the conduct of

everyday business in local general insurance agencies", it

was determined that the combination of Figure 3, "The Second

Process Chart Employed", and Table 3, "The Second List of

Verbs Considered by Employees", is the one preferred by both

the employees and their employers who participated in the

study. Now, it very well might be that this finding alone,

with nothing more required to have been accomplished by the

study, warranted its undertaking. Then, too, the study does

provide a tried and proven means for recording and reporting

what is being done, by way of the tasks which are performed,

in local general insurance agencies.

With respect to the second Purpose stated for the

study, namely "the provision, to each employer who

participated in the study, of the combination of process

chart and list of verbs found to be preferred generally by

the employees canvassed, for each task reported by that

person's employees", it is intended that this information be

provided to these employers in the next little while. That

there should be benefits accruing to them, from having

problem areas in their day-to-day operations pointed up so

these might be corrected and from being provided with the

means by which new employees might be readily trained, has

been recognized by these employers. Then too, there should

be benefits accruing to the employees who participated in

the study or, for that matter, to persons yet to be employed

in these local general insurance agencies, from having their

tasks flowcharted so all employees might be enabled, even to

the extent of being encouraged, to do better work, has been
recognized and widely approved by employees and employers
alike. In addition to these process charts, for any and all
tasks reported by their employees, the employers have
requested that they be provided with, and they will be
provided with, copies of this thesis. That they be provided
with the means whereby they will be able to record and
report the tasks performed by their employees, and to
analyze and deal with these tasks as might be required, is
not only their intention but also is the intention of this
author.

Now, it was determined in the course of the study that
additional information, particularly on the verbs to be
employed and on the manner in which these verbs should be
employed, was required in order that detailed summary
performance goals might come to be written. The approach,
taken in Table 2, "The List of Verbs Employed by the Author
in Completing the Process Charts", was developed early in
the study and its appropriateness was confirmed through
consultation with both employees and their employers as the
study progressed. Also, the findings with respect to
"hardware", "software", "educational cues", "supplementary
steps", and "reported criteria", which findings were,
reported by Lanham, Herschelmann, Weber, and Cook in 1970,
and a short time later by Lanham, Lanham, Herschelmann, and
Cook, the same authors, were found to apply in local general
insurance agencies. It very well might be that these

findings provide adequate information required for writing these detailed summary performance goals. That the writing of these performance goals will be stimulated, as a matter of course and hopefully in the near future, will have to remain to be determined.

Conclusions

Generally, it has been concluded that the combination of Figure 3 and Table 3, that is, the combination of "The Second Process Chart Employed" and "The Second List of Verbs Considered by Employees", is the one preferred by employees and employers alike. The second, third, and fourth choices, of both the employees and their employers, are respectively the combination of Figure 3 and Table 1, that is, the combination of "The Second Process Chart Employed" and "The First List of Verbs Considered by Employees", the combination of Figure 2 and Table 3, that is, the combination of "The First Process Chart Employed" and "The Second List of Verbs Considered by Employees", and the combination of Figure 2 and Table 1, that is, the combination of "The First Process Chart Employed" and "The First List of Verbs Considered by Employees".

The First Question to be Answered was "Is there any one combination of process chart and list of verbs preferred by the employees canvassed on the basis of suitability for employment in recording and reporting the tasks and the steps involved in each of these tasks which they perform?" In answer to this question, let it be reported that there

was determined to be a significant difference at $p < .01$
between the mean rating of the first choice of combination
of Figure 3 and Table 3 and the mean rating of the second
choice of combination of Figure 3 and Table 1. Then, too,
not only was there a significant difference between the
first and second choices, but there were also significant
differences between the second and third choices and between
the third and fourth choices.

Related to the First Question to be Answered was the
Second Question to be Answered which was "If there is one
combination of process chart and list of verbs preferred by
the employees canvassed, is this same combination preferred
by their employers who were also canvassed in the course of
the study?" In answer to this question, let it be reported
that the combination of Figure 3, "The Second Process Chart
Employed", and Table 3, "The Second List of Verbs Considered
by Employees", was rated the highest by the employees
canvassed and by their employers who also participated in
the study. Then, too, not only were the employees and their
employers in agreement as to the first choice of combination
of process chart and list of verbs, but they were also in
agreement as to the second, third, and fourth choices which
were respectively the combination of Figure 3 and Table 1,
the combination of Figure 2 and Table 3, and the combination
of Figure 2 and Table 1.

Specifically, it has been concluded that Figure 3, in
preference to Figure 2, was included in the first choice of

92% of the employees and 78% of their employers, and in the
second choice of 75% of the employees and 67% of their
employers, because it normally requires fewer pages to
flowchart a task in that it often can set out that task on
one page, because there is provision made for the broad
category of "Decision", because both Table 3 and Table 1
verbs can be accommodated without having to reduce these to
16 verbs, and because some verbs, which common usage
requires be placed in one of the categories, have to be
placed in one of the other categories. Then, too, it has
been concluded that Table 3 verbs, in preference to Table 1
verbs, were included in the first choice of 92% of the
employees and 78% of their employers, and in the third
choice of 75% of the employees and 56% of their employers,
because these verbs provide adequate coverage without being
cumbersome or confusing. These conclusions have been based
on information gathered from employees and their employers
in the course of the study. As mentioned previously,
detailed information on these choices appears in Appendix 4.

Specifically, it has been concluded that the
information, provided by Lanham, Lanham, Herschelmann, and
Cook (1972, p. 87), on "hardware", "software", "educational
cues", "supplementary steps", and "reported criteria", is
appropriate for employment in describing the tasks which are
performed in local general insurance agencies. This
conclusion has been based on information gathered from
employees and their employers in the course of the study.

Specifically, it has been concluded that the importance, attached by Lanham, Lanham, Herschelmann, and Cook (1972, p. 310), to "accuracy of checking and proofreading, to oral and written communication, and to computation of numerical data", is warranted and applicable to operations observed in local general insurance agencies. Also, as claimed by Schuman, in "Portfolio of Accounting Systems for Small and Medium-Sized Businesses" (M. D. James, Ed., 1968, p. 688), it was observed that, indeed, "the insurance agency lives and breathes as a service business, and therefore it is primarily a sales organization". So, with service generally its sole source of revenue, it is of little wonder that communication, not only within the agency but also with the public, is of such major importance. These conclusions have been based on information gathered from employees and their employers in the course of the study.

Recommendations for Further Study

That "new instruction is needed to prepare young people to meet current and emerging requirements of the office" (Huffman et al., 1968, p. 3), that "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" (Lanham, Herschelmann, Weber, & Cook, 1970, p. 3), and that "public pressures for accountability in education, movements toward career education, a strengthening of Federal and state

staffing and supporting of career education thrusts . . .
continue the necess y for revitalizing occupation
preparation with current and job-related task performances"
(Lanham, Lanham, Herschelmann, & Cook, 1972, p. iii), have
already been recognized and set out in this thesis.

There continues to be concern expressed over the need
to provide young people with improved business and office
education, to which education Business will have to make a
substantially greater contribution than it has ever made
before. This is borne out by what Hostrop (1975) and
Strobach (1976) had to say on this subject. Hostrop, on
page 16 in his chapter on "The Call for Accountability",
stated that "resea ch into the relationship between
education's output and the nation's manpower needs is
disquiet ng" and that "educational systems are falling far
short of turning out the right numbers and combinations of
manpower needed for optimum development". Hostrop went on
to say that, "on the other hand, society's employment
structures and incentives are poorly geared to make the best
use of educational personnel and hence to serve the real
needs of development". He concluded by saying that "it is
understandable that dissonant students have become
dissident, and why they have joined their parents in calling
for accountability--relevant curricula which will prepare
them for careers that exist". Strobach, on page 10 in his
article on "Business and Postsecondary Education Linkages",
observed that "business has traditionally relied on

education to provide adequately educated individuals, who become the employees that perform busin tasks" but that, "with accelerating technological and social change, this traditional educational need is being transformed to include a need for ongoing educational experiences for employees, to help them adjust to new work requirements and new job opportunities". Strobach went on to say that, "in this case, education would benefit from a dialogue with business on emerging technology and corresponding educational needs of employees" and that "education could also benefit from an awareness of the changing composition of the work force, whose members are candidates for continuing education programs". He concluded by saying that "business would clearly benefit from such a linkage in obtaining employees who are more appropriately educated for jobs they can be expected to carry out".

That it will be to future work groups, that what it is hoped will be improved instruction in business and office education will be directed, must be recog ed. Terry (1977). on pages 41-42 in his article on "The Supervisor of the (Near) Future", suggested that "some of the characteristics in which future work groups will differ from those of the present" are (a) future employees will be younger overall, with more than 35 per cent of the population of the United States less than 25 years old in 1980, (b) the attitudes of employees of all ages are changing in keeping with the evolution of social beliefs and

values, (c) though sex discrimination in hiring and placing of employees is likely to persist indefinitely, it will continue to decrease, voluntarily or through affirmative action programs, (d) suitable jobs for the nonskilled, the handicapped and the disadvantaged will be found, and progress in their promotion and upgrading will become common, and (e) better and more advanced formal education will characterize future employees.

Further study of matters related to business and office education, then, would appear not only to be warranted but also to be highly desirable. That it is anticipated that Business will come to make a considerably greater input, than it has ever made, into business and office education, and that it is anticipated that the very nature of the clientele to be served will change, would have to be taken into consideration in any further study which might come to be undertaken.

The first recommendation for further study is that consideration again be given to "A Taxonomy of Office Activities for Business and Office Education" (Huffman et al., 1968). Particular emphasis would have to be placed on the definitions of the verbs to be employed. Once these verbs were to be defined in acceptable terms, that is, in terms which would be acceptable to Business, to students, and to specialists in business and office education, the 20 Primary Division Verbs could be treated as general areas of competence required to be attained by students of and in

business and office education.

As set out in the Taxonomy, the Secondary Division Verbs serve "to indicate distinctive ways in which the action of the Primary Division Verb is carried out" (p. 14). With performance goals, each of these to include the conditions under which competence is to be demonstrated and appropriate criteria of successful performance, enunciated for each of these Secondary Division Verbs, directly, and for the corresponding Primary Division Verbs, indirectly, task analysis could be employed to good advantage in determining the optimum conditions under which these performance goals might be attained.

The second recommendation for further study is in keeping with what Lanham, Lanham, Herschelmann, and Cook (1972, p. 309) had to say when speaking of "generalized task performance goals or performance specifications from which performance goals will need to be developed", namely that "the competencies and performances attached to an office preparation program should be extracted from the actual performance of office work". It is this approach which is advocated be taken in this or any further study which might come to be undertaken.

No matter that those authors had gone to state that "a generalized task statement even in its detailed form is at most a generalization of important steps taken to perform office tasks and not the specific performance expected of a particular office worker", generalizations of this nature

would assist substantially once consideration were to be given to providing instruction related to these tasks. Then, too, further investigation of their "fundamentals of office task performance" (1972, p. 310) would appear to warrant further study.

This study should be replicated. It should involve other local general insurance agencies. It could involve any broad grouping of like businesses. It should make use of the combination of Figure 3, "The Second Process Chart Employed", and Table 3, "The Second List of Verbs Considered by Employees". It should account for a substantial portion, if not all, of each employee's time spent on the job. It should employ interviewers highly skilled in using this combination of process chart and list of verbs, and in obtaining related information from the employees who would be interviewed. It should produce data which could be analyzed in terms of instructional content and process, whether on a competency or some other basis. It should be then, and only then, that there should be determined the value of this whole approach to improving business and office education in terms of applicability in an instructional setting.

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APPENDIX 1

Table 1: The First List of Verbs
Considered by Employees

accumulate*
(collect)--to bring together into a band or group
activate
(operate)--to cause to function; to bring about; effect
add
--to increase in number, size, or importance
adjust
--to bring to a more satisfactory state
advise
(inform)--to make known or give instruction
affix
(attach)--to make fast or join
alert
(inform)--to make known or give instruction
annotate
(note)--to take due or special notice of
answer
--to speak, write, or reply
arrange
--to put into correct or desired order
ask
(request)--the act of asking for something
assemble
(collect)--to bring together into a band or group
assign
(issue)--to give out or make available
assist
(direct)--to assist by giving advice, instruction,
          and supervision
attach
--to make fast or join
balance
(compare)--to examine for the purpose of discovering
          resemblances or differences
batch
(collect)--to bring together into a band or group
bind
(package)--to enclose in a package or protective covering
block in
(arrange)--to put into correct or desired order
block out
(arrange)--to put into correct or desired order

_____

*Where
"accumulate" is the-synonym of the
NOBELS Action Verb "collect" and
"to bring together into a band or group"
the definition of "collect".

break down
(sort)--to arrange according to characteristics
calculate
(compute)--to determine by mathematical
         means or arrive at an answer
call
--to communicate or utter
change
(adjust)--to bring to a more satisfactory state
change
(correct)--to change in order to set right
check
--to inspect for satisfactory condition
choose
(determine)--to settle a question or come to a decision
clip
(attach)--to make fast or join
code
--any system of symbols for meaningful communication
collate
(arrange)--to put into correct or desired order
collect
--to bring together into a band or group
compare
--to examine for the purpose of discovering
  resemblances or differences
compile
--to assemble and put in logical order
complete
to fill, make entire, perfect
compose
(write)--to form or trace symbols on paper
compute
--to determine by mathematical
  means or arrive at an answer
confess
(discuss)--to discourse about, examine and pass on
confirm
(verify)--to confirm, to prove to be true
connect
(transfer)--to pass from one to another
consult
(discuss)--to discourse about, examine and pass on
consult
(refer)--to send or direct for information
convert
(compute)--to determine by mathematical
         means or arrive at an answer
copy
(duplicate)--to make a copy of
correct
--to change in order to set right

count
(compute)--to determine by mathematical
              means or arrive at an answer
deactivate
(operate)--to cause to function; to bring about; effect
debug
(correct)--to change in order to set right
decide
(determine)--to settle a question or come to a decision
delete
(remove)--to change or shift location, take off or away
deliver
--to give, transfer, yield possession of
describe
(direct)--to assist by giving advice, instruction,
          and supervision
design
(arrange)--to put into correct or desired order
destroy
--to put out of existence
determine
--to settle a question or come to a decision
devise
(arrange)--to put into correct or desired order
direct
--to assist by giving advice, instruction,
  and supervision
disburse
(issue)--to give out or make available
discard
(destroy)--to put out of existence
discuss
--to discourse about, examine and pass on
distribute
--to deal out, to dispense
divide
(compute)--to determine by mathematical
              means or arrive at an answer
draw
(write)--to form or trace symbols on paper
duplicate
--to make a copy of
enter
(record)--to set down in writing
erase
(remove)--to change or shift location, take off or away
evaluate
(determine)--to settle a question or come to a decision
examine
(check)--to inspect for satisfactory condition
explain
(direct)--to assist by giving advice, instruction,
          and supervision

extend
(compute)--to determine by mathematical
        means or arrive at an answer
extract
(pull)--to remove or cause to be removed
        from a place (file)
feed
(operate)--to cause to function; to bring about; effect
figure
(compute)--to determine by mathematical
        means or arrive at an answer
file
--to arrange in particular order for
   preservation and reference
fill in
(complete)--to fill, make entire, perfect
fill out
(complete)--to fill, make entire, perfect
find
(locate)--to determine the place of, to seek out and find
fix
(correct)--to change in order to set right
flowchart
(arrange)--to put into correct or desired order
forward
(send)--to cause something to be conveyed
        or transmitted by an
        agent to a destination
gather
(collect)--to bring together into a band or group
get
(obtain)--to gain or attain possession of
give
(deliver)--to give, transfer, yield possession of
give back
(return)--to go back or send back
give to
(distribute)--to deal out, to dispense
go thru
(locate)--to determine the place of, to seek out and find
grade
(determine)--to settle a question or come to a decision
greet
--to meet and give salutations
hand
(distribute)--to deal out, to dispense
hand to
(deliver)--to give, transfer, yield possession of
handwrite
(write)--to form or trace symbols on paper
help
(direct)--to assist by giving advice, instruction,
        and supervision

hold
--an order or indication that some
  action is to be delayed
identify
(determine)--to settle a question or come to a decision
index
(sort)--to arrange according to characteristics
inform
--to make known or give instruction
initial
(write)--to form or trace symbols on paper
inquire
(request)--the act of asking for something
insert
--to put into or inject
inspect
(check)--to inspect for satisfactory condition
instruct
(direct)--to assist by giving advice, instruction,
          and supervision
interview
(discuss)--to discourse about, examine and pass on
issue
--to give out or make available
journalize
(record)--to set down in writing
keep
(hold)--an order or indication that some
        action is t be delayed
keypunch
(punch)--to record data by perforating a card or tape
label
(write)--to form or trace symbols on paper
list
(compile)--to assemble and put in logical order
load
(operate)--to cause to function; to bring about; effect
locate
--to determine the place of, to seek out and find
log
(record)--to set down in writing
look at
(refer)--to send or direct for information
look for
(locate)--to determine the place of, to seek out and find
look on
(refer)--to send or direct for information
look up
(locate)--to determine the place of, to seek out and find
look up
(refer)--to send or direct for information
mail
--to send postal matter by mail

maintain
(hold)--an order or indication that some
       action is to be delayed
make note of
(note)--to take due or special notice of
make up
(compile)--to assemble and put in logical order
make up
(write)--to form or trace symbols on paper
mark
(write)--to form or trace symbols on paper
match
(compare)--to examine for the purpose of discovering
       resemblances or differences
mimeograph
(duplicate)--to make a copy of
move
(operate)--to cause to function; to bring about; effect
multiply
(compute)--to determine by mathematical
       means or arrive at an answer
negotiate
(arrange)--to put into correct or desired order
notate
(note)--to take due or special notice of
note
--to take due or special notice of
notify
(inform)--to make known or give instruction
obtain
--to gain or attain possession of
open
--to make available for use
operate
--to cause to function; to bring about; effect
oversee
(direct)--to assist by giving advice, instruction,
       and supervision
package
--to enclose in a package or protective covering
page
(call)--to communicate or utter
pay
(issue)--to give out or make available
photocopy
(duplicate)--to make a copy of
pick up
(obtain)--to gain or attain possession of
place
--to cause to rest or lie, to dispose, to put into
plan
(arrange)--to put into correct or desired order
post
(record)--to set down in writing

present
(deliver)--to give, transfer, yield possession of
proofread
--to read and mark corrections in matter
provide
(direct)--to assist by giving advice, instruction,
          and supervision
pull
--to remove or cause to be removed
  from a place (file)
punch
--to record data by perforating a card or tape
purge
(destroy)--to put out of existence
put
(place)--to cause to rest or lie, to dispose, to put into
put in
(insert)--to put into or inject
put in
(operate)--to cause to function; to bring about; effect
quote
(inform)--to make known or give instruction
read
(scan)--to make an intensive examination of, to check
receive
--to take in, to admit, to accept
reconcile
(compare)--to examine for the purpose of discovering
          resemblances or differences
record
--to set down in writing
refer
--to send or direct for information
reiterate
(inform)--to make known or give instruction
relate
(inform)--to make known or give instruction
relay
(refer)--to send or direct for information
remind
(inform)--to make known or give instruction
remove
--to change or shift location, take off or away
repeat
(inform)--to make known or give instruction
request
--the act of asking for something
return
--to go back or send back
review
(scan)--to make an intensive examination of, to check

route
  (send)--to cause something to be conveyed
          or transmitted by an
          agent to a destination
run tape
--to operate a tape machine, e.g., adding machine
run through
--a term used for putting data into
  a computer and operating
scan
--to make an intensive examination of, \to check
schedule
(arrange)--to put into correct or desired order
score
(determine)--to settle a question or come to a decision
search
(locate)--to determine the place of, to seek out and find
secure
(obtain)--to gain or attain possession of
select
(determine)--to settle a question or come to a decision
send
--to cause something to be conveyed
  or transmitted by an
  agent to a destination
separate
(sort)--to arrange according to characteristics
set
(adjust)--to bring to a more satisfactory state
set up
(compile)--to assemble and put in logical order
show
(direct)--to assist by giving advice, instruction,
          and supervision
sign
(write)--to form or trace symbols on paper
signal
(inform)--to make known or give instruction
sketch
(write)--to form or trace symbols on paper
sort
--to arrange according to characteristics
stamp
--to impress or mark with a device
staple
(attach)--to make fast or join
start
(operate)--to cause to function; to bring about; effect
store
(hold)--an order or indication that some
        action is to be delayed
straighten
(arrange)--to put into correct or desired order

stuff
(insert)--to put into or inject
submit
(deliver)--to give, transfer, yield possession of
subtract
(compute)--to determine by mathematical
        means or arrive at an answer
suggest
(inform)--to make known or give instruction
supervise
(direct)--to assist by giving advice, instruction,
        and supervision
supply
(direct)--to assist by giving advice, instruction,
        and supervision
tag
(write)--to form or trace symbols on paper
take
(direct)--to assist by giving advice, instruction,
        and supervision
take
(receive)--to take in, to admit, to accept
take dictation
--to write dictated material, usually in shorthand
take from
(pull)--to remove or cause to be removed
        from a place (file)
take off
(remove)--to change or shift location, take off or away
talk with
(discuss)--to discourse about, examine and pass on
teach
(direct)--to assist by giving advice, instruction,
        and supervision
telephone
(call)--to communicate or utter
tell
(inform)--to make known or give instruction
test
(determine)--to settle a question or come to a decision
thread
(operate)--to cause to function; to bring about; effect
throw away
(destroy)--to put out of existence
tie
(package)--to enclose in a package or protective covering
total
--a result of addition, a summation of factors
trace
(locate)--to determine the place of, to seek out and find
transcribe
--to copy dictated materials in common, legible language
transfer
--to pass from one to another

transmit
(send)--to cause something to be conveyed
         or transmitted by an
         agent to a destination
turn off
(operate)--to cause to function; to bring about; effect
turn on
(operate)--to cause to function; to bring about; effect
turn over
(refer)--to send or direct for information
typewrite
--the act of using a typewriter (type)
update
(correct)--to change in order to set right
upgrade
(correct)--to change in order to set right
verify
--to confirm, to prove to be true
welcome
(greet)--to meet and give salutations
witness
(direct)--to assist by giving advice, instruction,
          and supervision
wrap
(package)--to enclose in a package or protective covering
write
--to form or trace symbols on paper
Xerox
(duplicate)--to make a copy of

Table 2: The List of Verbs Employed by the
Author in Completing the Process Charts

Figure 2

Table 1		Table 3
accumulate*	COMPILE	collect
activate	OPERATE	operate
add	COMPUTE	add
adjust	CHECK	adjust
advise	INFORM	inform
affix	COMPILE	attach
alert	INFORM	inform
annotate	RECORD	note
answer	INFORM	answer
arrange	COMPILE	arrange
ask	INFORM	request
assemble	COMPILE	collect
assign	DELIVER	issue
assist	INFORM	direct
attach	COMPILE	attach
balance	COMPUTE	compare
batch	COMPILE	collect
bind	MAIL	package
block in	COMPILE	arrange
block out	COMPILE	arrange

Figure 3

Table 1		Table 3
accumulate	ACQUISITION	collect
activate	PROCESS	operate
add	PROCESS	add
adjust	ESS	adjust
advise		inform
affix	ITION	attach
alert		inform
annotate	DISPOSI	note
answer	PROCESS	answer
arrange	DISPOSITION	arrange
ask	PROCESS	request
assemble	DISPOSITION	collect
assign	ACQUISITION	issue
assist	DISPOSITION	direct
attach	DISPOSITION	attach
balance	PROCESS	compare
batch	DECISION	collect
bind	ACQUISITION	package
block in	PROCESS	arrange
block out	PROCESS	arrange
	PROCESS	

*Where
"accumulate" is the synonym of the
NOBELS Action Verb "collect" and
"COMPILE" is the verb
employed in Figure 2, and
"accumulate" and "collect"
are the verbs employed
under "ACQUISITION" in Figure 3.

break down	break down	sort	SORT	break down	sort
calculate	calculate	compute	COMPUTE	calculate	compute
call	call	call	CALL	call	call
change	change	adjust	CHECK	change	adjust
change	change	correct	CHECK	change	correct
check	check	check	CHECK	check	check
choose	choose	determine	DETERMINE	choose	determine
clip	clip	attach	COMPILE	clip	attach
code	code	code	OPERATE	code	code
collate	collate	arrange	COMPILE	collate	arrange
collect	collect	collect	COMPILE	collect	collect
compare	compare	compare	COMPUTE	compare	compare
compile	compile	compile	COMPILE	compile	compile
complete	complete	complete	COMPILE	complete	complete
compose	compose	write	RECORD	compose	write
compute	compute	compute	COMPOSE	compute	compute
confer	confer	discuss	COMPUTE	confer	discuss
confirm	confirm	verify	INFORM	confirm	verify
connect	connect	transfer	CHECK	connect	transfer
consult	consult	discuss	DELIVER	consult	discuss
consult	consult	refer	INFORM	consult	refer
convert	convert	compute	FILE	convert	compute
copy	copy	duplicate	COMPUTE	copy	duplicate
correct	correct	correct	DUPLICATE	correct	correct
count	count	compute	CHECK	count	compute
deactivate	deactivate	operate	COMPUTE	deactivate	operate
debug	debug	correct	OPERATE	debug	correct
decide	decide	determine	CHECK	decide	determine
delete	delete	remove	DETERMINE	delete	remove
deliver	deliver	deliver	FILE	deliver	deliver
describe	describe	direct	DELIVER	describe	direct
design	design	arrange	INFORM	design	arrange
destroy	destroy	destroy	COMPILE	destroy	destroy
determine	determine	determine	FILE	determine	determine
devise	devise	arrange	DETERMINE	devise	arrange
direct	direct	direct	COMPILE	direct	direct
			INFORM		

sort	PROCESS
compute	PROCESS
call	DISPOSITION
adjust	PROCESS
correct	PROCESS
check	DECISION
determine	DECISION
attach	PROCESS
code	PROCESS
arrange	PROCESS
collect	QUISITION
compare	DECISION
compile	ACQUISITION
complete	PROCESS
write	PROCESS
compute	PROCESS
discuss	DISPOSITION
verify	DECISION
transfer	DISPOSITION
discuss	DISPOSITION
refer	DISPOSITION
compute	PROCESS
duplicate	PROCESS
correct	PROCESS
compute	PROCESS
operate	PROCESS
correct	PROCESS
determine	DECISION
remove	PROCESS
deliver	DISPOSITION
direct	DISPOSITION
arrange	PROCESS
destroy	DISPOSITION
determine	DECISION
arrange	PROCESS
direct	DISPOSITION

disburse	DELIVER	issue	disburse	DISPOSITION	issue
discard	FILE	destroy	discard	DISPOSITION	destroy
scuss	INFORM	discuss	discuss	DISPOSITION	discuss
stribute	DELIVER	distribute	distribute	DISPOSITION	distribute
divide	COMPUTE	compute	divide	PROCESS	compute
draw	COMPOSE	write	draw	PROCESS	write
duplicate	DUPLICATE	duplicate	duplicate	PROCESS	duplicate
enter	RECORD	record	enter	PROCESS	record
erase	FILE	remove	erase	PROCESS	remove
evaluate	DETERMINE	determine	evaluate	DECISION	determine
examine	CHECK	check	examine	DECISION	check
explain	INFORM	direct	explain	DISPOSITION	direct
extend	COMPUTE	compute	extend	PROCESS	compute
extract	FILE	pull	extract	ACQUISITION	pull
feed	OPERATE	operate	feed	PROCESS	operate
figure	COMPUTE	compute	figure	PROCESS	compute
file	FILE	file	file	DISPOSITION	file
fill in	RECORD	complete	fill in	PROCESS	complete
fill out	RECORD	complete	fill out	PROCESS	complete
find	FILE	locate	find	ACQUISITION	locate
fix	CHECK	correct	fix	PROCESS	correct
flowchart	COMPILE	arrange	flowchart	PROCESS	arrange
forward	DELIVER	send	forward	DISPOSITION	send
gather	COMPILE	collect	gather	ACQUISITION	collect
get	COMPILE	obtain	get	ACQUISITION	obtain
give	DELIVER	deliver	give	DISPOSITION	deliver
give back	DELIVER	return	give back	DISPOSITION	return
give to	DELIVER	distribute	give to	DISPOSITION	distribute
go thru	FILE	locate	go thru	ACQUISITION	locate
grade	DETERMINE	determine	grade	DECISION	determine
greet	INFORM	greet	greet	DISPOSITION	greet
hand	DELIVER	distribute	hand	DISPOSITION	distribute
hand to	DELIVER	deliver	hand to	DISPOSITION	deliver
handwrite	COMPOSE	write	handwrite	PROCESS	write
help	INFORM	direct	help	DISPOSITION	direct
hold	FILE	hold	hold	DISPOSITION	hold

determine — DECISION
sort — PROCESS
inform — DISPOSITION
write — PROCESS
request — DISPOSITION
insert — PROCESS
check — DECISION
direct — DISPOSITION
discuss — DISPOSITION
issue — DISPOSITION
record — DISPOSITION
hold — PROCESS
punch — DISPOSITION
write — PROCESS
compile — PROCESS
operate — ACQUISITION
locate — PROCESS
record — ACQUISITION
refer — PROCESS
locate — DISPOSITION
refer — ACQUIS...
locate — DISPOSITION
refer — ACQUIS...
mail — DISPOS...
hold — DISPOS...
note — DISPOSITION
compile — DISPOSITION
write — PROCESS
write — ACQUISITION
compare — PROCESS
duplicate — PROCESS
operate — DECISION
compute — PROCESS
arrange — PROCESS
note — PROCESS
note — PROCESS
 — PROCESS
 — PROCESS

identify
index
inform
initial
inquire
insert
inspect
instruct
interview
issue
journalize
keep
keypunch
label
list
load
locate
log
look at
look for
look on
look up
look up
mail
maintain
make note of
make up
make up
mark
match
mimeograph
move
multiply
negotiate
notate
note

determine
s
in
w
requ
inser
check
direct
discuss
issue
record
hold
punch
write
compile
operate
locate
record
refer
locate
refer
locate
refer
mail
hold
note
compile
write
write
compare
duplicate
operate
compute
arrange
note
note

DETERMINE
SORT
INFORM
COMPOSE
INFORM
MAIL
CHECK
INFORM
INFORM
DELIVER
RECORD
FILE
OPERATE
COMPOSE
COMPILE
OPERATE
FILE
RECORD
FILE
FILE
FILE
FILE
FILE
MAIL
FILE
RECORD
COMPILE
COMPOSE
COMPOSE
COMPUTE
DUPLICATE
OPERATE
COMPUTE
COMPILE
RECORD
RECORD

identify
index
inform
initial
inquire
insert
inspect
instruct
interview
issue
journalize
keep
keypunch
label
list
load
locate
log
look at
look for
look on
look up
look up
mail
maintain
make note of
make up
make up
mark
match
mimeograph
move
multiply
negotiate
notate
note

notify	INFORM	inform	notify	DISPOSITION	inform
obtain	COMPILE	obtain	obtain	ACQUISITION	obtain
open	MAIL	open	open	ACQUISITION	open
operate	OPERATE	operate	operate	PROCESS	operate
oversee	INFORM	direct	oversee	DISPOSITION	direct
package	MAIL	package	package	PROCESS	package
page	CALL	call	page	DISPOSITION	call
pay	DELIVER	issue	pay	DISPOSITION	issue
photocopy	DUPLICATE	duplicate	photocopy	PROCESS	duplicate
pick up	COMPILE	obtain	pick up	ACQUISITION	obtain
place	DELIVER	place	place	PROCESS	place
plan	COMPILE	arrange	plan	PROCESS	arrange
post	RECORD	record	post	PROCESS	record
present	DELIVER	deliver	present	DISPOSITION	deliver
proofread	CHECK	proofread	proofread	DECISION	proofread
provide	INFORM	direct	provide	DISPOSITION	direct
pull	FILE	pull	pull	ACQUISITION	pull
punch	OPERATE	punch	punch	PROCESS	punch
purge	FILE	purge	purge	DISPOSITION	destroy
put	DELIVER		put	PROCESS	place
put in	MAIL	insert	put in	PROCESS	insert
put in	OPERATE	operate	put in	PROCESS	operate
quote	INFORM	inform	quote	DISPOSITION	inform
read	CHECK	scan	read	DECISION	scan
receive	RECEIVE	receive	receive	ACQUISITION	receive
reconcile	COMPUTE	compare	reconcile	DECISION	compare
record	RECORD	record	record	PROCESS	record
refer	FILE	refer	refer	DISPOSITION	refer
reiterate	INFORM	inform	reiterate	DISPOSITION	inform
relate	INFORM	inform	relate	DISPOSITION	inform
relay	FILE	refer	relay	DISPOSITION	refer
remind	INFORM	inform	remind	DISPOSITION	inform
remove	FILE	remove	remove	PROCESS	remove
repeat	INFORM	inform	repeat	DISPOSITION	inform
request	INFORM	request	request	DISPOSITION	request
return	DELIVER	return	return	DISPOSITION	return

review	CHECK	scan	review	DECISION	scan
route	DELIVER	send	route	DISPOSITION	send
run tape	COMPUTE	run tape	run tape	PROCESS	run tape
run through	OPERATE	run through	run through	PROCESS	run through
scan	CHECK	scan	scan	DECISION	scan
schedule	COMPILE	arrange	schedule	PROCESS	arrange
score	DETERMINE	determine	score	DECISION	determine
search	FILE	locate	search	ACQUISITION	locate
secure	COMPILE	obtain	secure	ACQUISITION	obtain
select	DETERMINE	determine	select	DECISION	determine
send	DELIVER	send	send	DISPOSITION	send
separate	SORT	sort	separate	PROCESS	sort
set	CHECK	adjust	set	PROCESS	adjust
set up	COMPILE	compile	set up	ACQUISITION	compile
show	INFORM	direct	show	DISPOSITION	direct
sign	COMPOSE	write	sign	PROCESS	write
signal	INFORM	inform	signal	DISPOSITION	inform
sketch	COMPOSE	write	sketch	PROCESS	write
sort	SORT	sort	sort	PROCESS	sort
stamp	RECORD	stamp	stamp	PROCESS	stamp
staple	COMPILE	attach	staple	PROCESS	attach
start	OPERATE	operate	start	PROCESS	operate
store	FILE	hold	store	DISPOSITION	hold
straighten	COMPILE	arrange	straighten	PROCESS	arrange
stuff	MAIL	insert	stuff	PROCESS	insert
submit	DELIVER	deliver	submit	DISPOSITION	deliver
subtract	COMPUTE	compute	subtract	PROCESS	compute
suggest	INFORM	inform	suggest	DISPOSITION	inform
supervise	INFORM	direct	supervise	DISPOSITION	direct
supply	INFORM	direct	supply	DISPOSITION	direct
tag	COMPOSE	write	tag	PROCESS	write
take	INFORM	direct	take	DISPOSITION	direct
take	RECEIVE	receive	take	ACQUISITION	receive
take dictation	RECEIVE	take dictation	take dictation	ACQUISITION	take dictation
take from	FILE	pull	take from	ACQUISITION	pull
take off	FILE	remove	take off	PROCESS	remove

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discuss	DISPOSITION
direct	DISPOSITION
call	DISPOSITION
inform	DISPOSITION
determine	DECISION
operate	PROCESS
destroy	DISPOSITION
package	PROCESS
total	PROCESS
locate	ACQUISITION
transcribe	PROCESS
transfer	DISPOSITION
send	DISPOSITION
operate	PROCESS
operate	PROCESS
refer	DISPOSITION
typewrite	PROCESS
correct	PROCESS
correct	PROCESS
verify	DECISION
greet	DISPOSITION
direct	DISPOSITION
package	PROCESS
write	PROCESS
duplicate	PROCESS

talk with	
teach	
telephone	
tell	
test	
thread	
throw away	
tie	
total	
trace	
transcribe	
transfer	
transmit	
turn off	
turn on	
turn over	
typewrite	
update	
upgrade	
verify	
welcome	
witness	
wrap	
write	
Xerox	

INFORM	discuss	talk with
INFORM	direct	teach
CALL	call	telephone
INFORM	inform	tell
DETERMINE	determine	test
OPERATE	operate	thread
FILE	destroy	throw away
MAIL	package	tie
COMPUTE	total	total
FILE	locate	trace
TYPE	transcribe	transcribe
DELIVER	transfer	transfer
DELIVER	send	transmit
OPERATE	operate	turn off
OPERATE	operate	turn on
FILE	refer	turn over
TYPE	typewrite	typewrite
CHECK	correct	update
CHECK	correct	upgrade
CHECK	verify	verify
INFORM	greet	welcome
INFORM	package	witness
MAIL	write	wrap
COMPOSE	duplicate	write
DUPLICATE		Xerox

talk with
teach
telephone
tell
test
thread
throw away
tie
total
trace
transcribe
transfer
transmit
turn off
turn on
turn over
typewrite
update
upgrade
verify
welcome
witness
wrap
write
Xerox

Table 3:   The Second List of Verbs
Considered by Employees

add*
--to increase in number, size, or importance
adjust
--to bring to a more satisfactory state
answer
--to speak, write, or reply
arrange
--to put into correct or desired order
attach
--to ma   fast or join
call
--to communicate or utter
check
--to inspect for satisfactory condition
code
--any system of symbols for meaningful communication
collect
--to bring together into a band or group
compare
--to examine for the purpose of discovering
  resemblances or differences
compile
--to assemble and put in logical order
complete
--to fill, make entire, perfect
compute
--to determine by mathematical
  means or arrive at an answer
correct
--to change in order to set right
deliver
--to give, transfer, yield possession of
destroy
--to put out of existence
determine
--to settle a question or come to a decision
direct
--to assist by giving advice, instruction,
  and supervision
discuss
--to discourse about, examine and pass on
distribute
--to deal out, to dispense
duplicate
--to make a copy of

---

*Where
"add" is the NOBELS Action Verb and
"to increase in number, size, or importance" its definition.

file
--to arrange in particular order for
  preservation and reference
greet
--to meet and give salutations
hold
--an order or indication that some
  action is to be delayed
inform
--to make known or give instruction
insert
--to put into or inject
issue
--to give out or make available
locate
--to determine the place of, to seek out and find
mail
--to send postal matter by mail
note
--to take due or special notice of
obtain
--to gain or attain possession of
open
--to make available for use
operate
--to cause to function; to bring about; effect
package
--to enclose in a package or protective covering
place
--to cause to rest or lie, to dispose, to put into
proofread
--to read and mark corrections in matter
pull
--to remove or cause to be removed
  from a place (file)
punch
--to record data by perforating a card or tape
receive
--to take in, to admit, to accept
record
--to set down in writing.
refer
--to send or direct for information
remove
--to change or shift location, take off or away
request
--the act of asking for something
return
--to go back or send back
run tape
--to operate a tape machine, e.g., adding machine
run through
--a term used for putting data into
  a computer and operating

scan
--to make an intensive examination of, to check
send
--to cause something to be conveyed
  or transmitted by an
  agent to a destination
sort
--to arrange according to characteristics
stamp
--to impress or mark with a device
take dictation
--to write dictated material, usually in shorthand
total
--a result of addition, a summation of factors
transcribe
--to copy dictated materials in common, legible language
transfer
--to pass from one to another
typewrite
--the act of using a typewriter (type)
verify
--to confirm, to prove to be true
write
--to form or trace symbols on paper

APPENDIX 2

Identification number ___

Figure 4:   The Form used by Employees to
Rate Combination of Figure 2 and Table 1

Identification number __   Page __ o
        Figure 2:. The First Process Chart Emplo   9
Task charted _____
Task began with ·_____
Task ended with _____
Estimated percentage of time spent on task __--r.
                                                          8
                                          Step in task

    Acquisition--receive _____
Process--check, compile, compose,   _____   7
        compute, determine, -_____
        duplicate, operate,   _____

                                                          6
                    . . .

        record, sort, type. _____
Disposition--call, deliver, _____
            file, inform, mail ___ ._____   5

Table 1:   The First List of Verbs
        Considered by Employees
                                                          3

accumulate*
(collect)--to bring together into a band or grou   2
activate
(operate)--to cause to function; to bring about;

                    . . .   1

wrap
(package)--to enclose in a package or protective
write   0
--to form or trace symbols on paper
Xerox
(duplicate)--to make a copy of

Identification number ___

Rating

Figure 5: The Form used by Employees to
Rate Combination of Figure 2 and Table 3

Identification number __   Page __ b

    Figure 2: The First Process Chart Emplo

Task charted _____

Task began with _____

Task ended with _____

Estimated percentage of time spent on task __--r

                          Step in task

Acquisition--receive _____

Process--check, compile, compose, _____

       compute, determine, _____

       duplicate, operate, _____

                 . . .

       record, sort, type _____

Disposition--call, deliver, _____

         file, inform, mail _____

9

7

6

5

4

Table 3: The Second List of Verbs
       Considered by Employees

add*
--to increase in number, size, or importance

adjust
--to bring to a more satisfactory state

        . . .

typewrite
--the act of using a typewriter (type)

verify
--to confirm, to prove to be true

write
--to form or trace symbols on paper

3

2

1

0

Identification number __

Figure 6:   The Form used by Employees to
Rate Combination of Figure 3 and Table 1

Identification number __   Page __ o

Figure 3:   The Second Process Chart Empl

9

Task charted _____

Task began with _____

Task ended with _____

Estimated percentage of time spent on task __--r

8

Decision
    Acquisition
        Process
            Disposition

7

Step in task

6

5

4

Table 1:   The First List of Verbs
Considered by Employees

3

accumulate*
(collect)--to bring together into a band or grou

2

activate
(operate)--to cause to function; to bring about;

1

. . .

wrap
(package)--to enclose in a package or protective

0

write
--to form or trace symbols on paper

Xerox
(duplicate)--to make a copy of

Figure 7: The Form used by Employees to
Rate Combination of Figure 3 and Table 3

Identification number __   Page __ o
          Figure 3: The Second Process Chart Empl
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task __--r

Decision
  .   Acquisition
  .   .   Process
  .   .   .   Disposition
  .   .   .   .   Step in task

Table 3: The Second List of Verbs
          Considered by Employees

add*
--to increase in number, size, or importance
adjust
--to bring to a more satisfactory state

. . .

typewrite
--the act of using a typewriter (type)
verify
--to confirm, to prove to be true
write
--to form or trace symbols on paper

R
a
t
i
n
g

9

8

7

6

5

4

3

2

1

0

Figure 8: The Form used by Employees to Rate
Each of Four Combinations of Process
Chart and List of Verbs

Choice of Combination	Figure 2 /Table 1	Figure 2 /Table 3	Figure 3 /Table 1	Figure 3 /Table 3
Figure 3/Table 1 Figure 3/Table 3			—	—
Figure 2/Table 1 Figure 3/Table 1	—		—	
Figure 2/Table 1 Figure 2/Table 3	—	—		
Figure 2/Table 3 Figure 3/Table 1		—	—	
Figure 2/Table 1 Figure 3/Table 3	—			
Figure 2/Table 3 Figure 3/Table 3		—		—
Total Choices	—	—	—	—

	Total Choices	Rank	Rank	
Combination of Figure 2/Table 1	—	( )	( )	Rating from Figure 4 _
Combination of Figure 2/Table 3	—	( )	( )	Rating from Figure 5 _
Combination of Figure 3/Table 1	—	( )	( )	Rating from Figure 6 _
Combination of Figure 3/Table 3	—	( )	( )	Rating from Figure 7 _

Figure 9: The Form used by Employers to Rate
Each of Four Combinations of Process
Chart and List of Verbs

Choice of Combination	Figure 2 /Table 1	Figure 2 /Table 3	Figure 3 /Table 1	Figure 3 /Table 3
Figure 3/Table 1 Figure 3/Table 3			—	—
Figure 2/Table 1 Figure 3/Table 1	—		—	
Figure 2/Table 1 Figure 2/Table 3	—	—		
Figure 2/Table 3 Figure 3/Table		—	—	
Figure 2/Table 1 Figure 3/Table 3	—			—
Figure 2/Table 3 Figure 3/Table 3		—		—
Total Choices	—	—	—	—
Rank	( )	( )	( )	( )

Reported Criteria _____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

APPENDIX 3

95

Businesses Identified as Handling
General Insurance* and Which
Participated in the Study

Alfred Arnston Insurance Agency
Hay Lakes, Alberta

Co-Op Insurance Services
10203 - 100 Avenue
Fort Saskatchewan, Alberta

Co-Operative Insurance Services
Elevator Road
Stony Plain, Alberta

Dome Insurance Services Ltd.
28 Grandin Mall
St. Albert, Alberta

Forrest Insurance Services Ltd.
11 St. Anne Street
St. Albert, Alberta

Johnson Realty & Insurance Ltd.
1 Athabasca Avenue
Devon, Alberta

Norman Knott Insurance
Gibbons, Alberta

Jules LaRose
General Insurance & Real Estate
Legal, Alberta

John A. Mills, Insurance Agent
Onoway, Alberta

Smith Insurance Service Ltd.
10204 - 100 Avenue
Fort Saskatchewan, Alberta

Tele-Trip Company, Inc.
Edmonton International Airport
P. O. Box 9802
Edmonton, Alberta

*As set out in "Extended Flat Rate Calling
to Alberta Government Telephones Areas" in
Edmonton & Vicinity Phone Book--effective
March 7, 1976.

Whitson Insurance Services
4932 - 48 Avenue
Bon Accord, Alberta

<u>The First Regular Letter</u>
<u>Addressed to Employers</u>

TO WHOM IT MAY CONCERN

This letter will serve to introduce Mr. Bill Hart, Candidate for the Degree of Master of Education in Vocational Education. Mr. Hart has been known to me for approximately three years and I have no hesitation in stating that I know him to be completely honest and trustworthy.

Mr. Hart is responsible to me for meeting the thesis requirements for the M.Ed. degree and I should appreciate your cooperating with him in the research project which he has undertaken. I believe it to be very much worthwhile in terms of benefits to the whole field of Business Education and certainly in terms of benefits to be realized by participants in this study -- it most assuredly should be of assistance to you by having the duties of your employees flowcharted so these might be analyzed and improvements made, and so new employees might be more readily trained than is the case at the present.

Sincerely,

D. W. Manuel, Ph.D.,
Associate Professor

DWM/ck

The First Regular Letter
Addressed to Employees

Dear _____:

Your employer has been contacted and has agreed to participate in the research study which I am conducting as part of the requirements for the degree of Master of Education in Vocational Education. As was set out in the letter from Dr. Don Manuel, which letter served to introduce me to your employer, there should be some very real benefits to be realized from participating in this study--your duties would be flowcharted, with the distinct possibility that your performance of these would be improved and you would be able to do a better job, and you would be that much better able to help in training new staff, once your and others' duties were to be flowcharted and possibly improved, so they too might be able to do a better job.

I have enclosed a copy of "Figure 1: Information with Respect to Employee and Employer" and it should be completed and, along with other information with which I propose to deal shortly, submitted to me.

Now, just what will be required of you? Well, Barish*, on page 45 of "Systems Analysis for Effective Administration", stated the purpose of the "duties questionnaire" to be that of providing "a detailed story of the activities of all the individuals in the section" and went on to say that, "in the

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*Barish, N. N.
Systems Analysis for Effective Administration
New York: Funk & Wagnalls Company, 1951.

questionnaire, each employe is requested to list his
duties and the average amount of time he estimates he
spends on each one". So, first of all, what I should
like you to do is to complete a "duties questionnaire",
that is, a list of your duties, in descending order of
the percentage of time you spend on each of these, to
the extent that at least six of your duties might be
considered. The first entry in a "duties
questionnaire", that is, the duty or task which took up
the greatest percentage of some employee's working
time, might be as follows:

Task (or Duty):	Estimated Percentage of Time Involved:	Rank:
Given an incoming telephone call, answers and supplies information to the caller.*	40	1

. . .

Then, please break down each of these tasks into
the steps involved--to assist you in doing just this, I
have enclosed a copy of "Table 1: The First List of
Verbs Considered by Employees". This List
provides all the verbs which you should consider
employing to describe each of the steps which go to
make up your individual duties--these verbs are listed
on the left and are underlined, and these are the ones
to be employed. Where the verb on the left is a
synonym of a NOBELS Action Verb, the NOBELS Action Verb
is given in parenthesis--"add" is a NOBELS Action Verb
so only its definition is given, whereas "activate" is
a synonym of the NOBELS Action Verb "operate" so the
definition of "operate" is given. So, the first task
might be broken down as set out on the following page.

---

*This is an actual task reported on page 263 of
Lanham, F. W., Herschelmann, K. M.,
Weber, C. P., & Cook, F. S.
Development of Performance Goals for a New Office
and Business Education Learnings System (NOBELS).
Columbus: C.V.T.E., The Ohio State University, 1970.
The "Estimated Percentage of Time Involved" has been
quite arbitrarily assigned as no information of this
nature was provided in that report.

Task: Step in Task:

Given an incoming telephone
call, answers and supplies
information to the caller.

                              (1) Receives call.
                              (2) Obtains name of caller.
                              (3) Determines na .re
                                   of call.
                              (4) Refers call (if
                                   cannot answer).
                              (5) Obtains requested
                                   information (if
                                   can answer).
                              (6) Supplies shipment
                                   dates/rates/progress
                                   of repair.
                              (7) Records calls/messages/
                                   orders/appointments.
                              (8) Delivers messages.

        Then, for each task which you have reported, you
should enter information with respect to
"Hardware" (materials of wood, metal or harder
consistency like machines used),
"Software" (programs, policy manuals, catalogues, or
references used),
"Supplementary steps" (alternatives of performance or
steps performed by a few workers),
"Reported criteria" (requirements of successful
performance),
and, should you perceive any of these,
"Educational cues" (suggestions on implied
instructional key elements for teaching).*

        Once each of your duties (or tasks) were to be
broken down into its constituent steps, I would put
these into flowchart format and provide you with
process charts, of one of the duties which you perform,
for your further consideration. Meanwhile, please
complete and return the copy of Figure 1--also, please

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*Adapted from page 55 of
Development of Performance Goals for a New Office
and Business Education Learnings System (NOBELS).

send in the list of your duties and the corresponding
list of the steps involved in each of these duties, and
the information with respect to "Hardware" and so on.

Please do not hesitate to get in touch with me (my
home telephone number is 459-8364) should you feel that
you require more information--I propose to keep in
close touch but just what you are being asked to do
might need some clarification and I should be pleased
to answer your questions. Thank you very much.

Sincerely,

Bill Hart

Dear _____:

Thank you very much for all you have done so far
with respect to the study which I am conducting as part
of the requirements for the degree of Master of
Education in Vocational Education.

Four combinations of process chart and list of
verbs are enclosed for one of the tasks which you have
reported or, should you not have had the opportunity to
complete your listing of your tasks and so on, from
which I would have been able to complete covering
process charts, for each of six tasks which have been
selected at random from "SIC Performance Goals" on
pages 58-104 in "Development of Performance Goals for a
New Office and Business Education Learnings System
(NOBELS)" (Lanham, Herschelmann, Weber, & Cook, 1970).
The first combination employs the process chart shown
as Figure 2 and the verbs from Table 1, the second
combination employs the process chart shown as Figure 2
and the verbs from Table 3, the third combination
employs the process chart shown as Figure 3 and the
verbs from Table 1, and the fourth combination employs
the process chart shown as Figure 3 and the verbs from
Table 3. Also enclosed are Table 3 (you will notice
that it is substantially shorter than Table 1 as it
includes only the NOBELS Action Verbs and the
definition of each of these Verbs) and a copy of each
of Figures 4, 5, 6, and 7, which copies are to be
employed in rating each of the four combinations of
process chart and list of verbs on the basis of
suitability for employment in recording and reporting

the tasks and the steps involved in each of these tasks
which you perform or which are performed by others.

Now, what I should like you to do is to rate, on a
scale from 0 (low) to 9 (high), each of the four
combinations, on the appropriate form,   to its
suitability for employment in recording and reporting
these tasks and the steps involved in each of these
tasks. Figure 8, a copy of which Figure is also
enclosed, then should be completed--you should select,
from each of the six choices of combination of process
chart and list of verbs, the combination which you
believe to be the more suitable. Your overall ratings
on this form should be consistent with your individual
ratings from Figures 4, 5, 6, and 7; should the ranking
based on your overall ratings not be consistent with
the ranking based on your individual ratings, then
either your overall ratings or your individual ratings
should be changed. Please remember that your numerical
ratings should be reflected in your overall ratings of
these combinations--for instance, if you were to have
rated one combination the highest on some individual
rating form (Figure 4, or Figure 5, or Figure 6, or
Figure 7), it should have been rated the highest on
Figure 8 as determined by the number of times it was
chosen; otherwise, some manner of change or changes
should be made to produce consistency between your
overall ratings and your individual ratings. Please
remember that "suitability", for the purposes of this
study, is defined as "suitability for employment in
recording and reporting the tasks and the steps
involved in each of these tasks which are performed in
the course of everyday work".

Finally, all process charts, Figures 4, 5, 6, and
7, and Figure 8 should be returned to me for further
processing. I promise to keep you informed of progress
being made in this study. Again, please do not
hesitate to get in touch with me should you require
more information. Again, thank you very much.

Sincerely,

Bill Hart

<u>The Special Letter Addressed to an Employee Should
the Overall Ratings Not be Consistent with the
Individual Ratings Reported by that Employee</u>

Dear _____:

Thank you very much for considering the process charts made up for one of the tasks which you reported or for the tasks reported under "SIC Performance Goals" and for rating each of the four combinations of process chart and list of verbs as to suitability for employment in recording and reporting the tasks and the steps involved in each of these tasks which are performed in the course of everyday. work.

There is no great problem but it would appear that there is some inconsistency between how you rated each of the four combinations, on an individual basis, and how you rated these overall. Really, what I am trying to say is that it is rather easy for some manner of inconsistency to occur--so please be assured that the situation can be corrected with little difficulty. For this reason, I have enclosed the process charts, Figures 4, 5, 6, and 7, and a new Figure 8.

Now, what I should like you to do is again to consider each of the ratings on Figures 4, 5, 6, and 7--then, on Figure 8, and quite independently of the individual ratings, you should choose, from each of the six "either/or" choices presented, the combination which you feel is more suitable for the purposes of this study. Please mark your choice in the appropriate space and add up your choices. Then, please transfer your totals to "Total Choices" and determine the "Rank" of each combination from the number of "Total Choices" each received. With respect to individual ratings of

these combinations, from Figures 4, 5, 6, and 7, the
numerical ratings would determine the "Rank" of each of
these. Finally, each "Rank" should be the same for
each of the four combinations, that is, one combination
should be ranked the same whether based on its
numerical rating or based on the number of choices it
received in the overall rating.

Please return the process charts, Figures 4, 5, 6,
and 7, and the newly completed Figure 8 just as soon as
it might be convenient to do this. Again, please do
not hesitate to get in touch with me should you feel
that you require more information. Again, thank you
very much.

Sincerely,

Bill Hart

<u>The Second Regular Letter</u>
<u>Addressed to Employers</u>

Dear _____:

The research study, in which your employees and
you are playing such an important part, is progressing
very satisfactorily--in fact, the data-gathering
portion of the study is nearing completion, thanks to
all of you.

Now, what I should like you to do is to complete
the enclosed Figure 1--this information will be used
for identification purposes only. Then, please go over
the combinations of process chart and list of verbs
which, together with Tables 1 and 3 and Figure 9, are
also enclosed. On Figure 9, you should select, from
each of the six "either/or" choices of combination of
process chart and list of verbs, the combination which
you believe to be the more suitable for employment in
recording and reporting the tasks and the steps
involved in each of these tasks which are performed by
your employees or which have been selected at random
from "SIC Performance Goals" on pages 58-104 in
"Development of Performance Goals for a New Office and
Business Education Learnings System (NOBELS)" (Lanham,
Herschelmann, Weber, & Cook, 1970). Please indicate
your choices in each column--then, please transfer your
totals to "Total Choices" and determine the "Rank" of
each combination from the number of "Total Choices"
each combination received. Please remember that
"suitability", for the purposes of this study, is
defined as "suitability for employment in recording and
reporting the tasks and the steps involved in each of
these tasks performed by employees in the course of

their everyday work". Finally, please indicate any
"Reported Criteria" which are defined as "requirements
of successful performance" and which you believe to be
important in the tasks considered.

Please return Figure 1, the process charts, and
Figure 9 just as soon as it might be convenient to do
this. Please do not hesitate to get in touch with me
should you feel that you require more information.
Thank you very much.

Sincerely,

Bill Hart

The Third Regular Letter
Addressed to Employees

Dear _____ :

    It is with considerable pleasure that I write this short letter to let you know that the research study, to which you have contributed so very much, is all but complete. All that remains for me to do is to defend my thesis and subsequently to provide your employer with a copy of the combination of process chart and list of verbs, which combination has been found to be the most suitable for recording and reporting the tasks and the steps involved in each of these tasks performed by all employees participating in the study, for each of the tasks which you reported.

    Our relationship has been most pleasant and very rewarding to me personally. I should like you to know how much I appreciate all you have done to make the study such a success. Thank you very kindly.

Sincerely,

Bill Hart

<u>The Third Regular Letter</u>
<u>Addressed to Employers</u>

Dear _____ :

  This short letter is to let you know that the
research study, to which your employees and you have
contributed so very much, has been completed. As I
indicated in my recent letter to your employees, what
remains for me to do is to provide you with a copy of
the combination of process chart and list of verbs,
which combination has been found to be the most
suitable for recording and reporting the tasks and the
steps involved in each of these tasks performed by all
employees participating in the study, for each of the
tasks each of your employees reported. It is
anticipated that it should be possible to supply this
information to you in the next little while.

  Until I can get in touch with you about sending
these copies out to you or, better still, about
delivering these to you, I should like you to know how
much I appreciate your co-operation--and it has indeed
been pleasant working with you and I have found the
whole experience to be highly rewarding to me
personally. Thank you very kindly.

Sincerely,

Bill Hart

APPENDIX 4

111

Figure 10: Derivation of the Number of Businesses
Which Participated in the Study as Respondents

Population--businesses listed as handling insurance   23

Businesses which declined to participate in the study   - 6

Businesses which handled only life insurance   - 3

Businesses which had gone out of business   - 2
after commencement of the study

                                                            ___

Sample--businesses which participated in the study   12

Businesses with no employees, the management   - 2
of which were treated as employees

Business from which no rating forms were obtained   - 1

                                                            ___

Businesses which participated   9
in the study as respondents   ===

Figure 11: Derivation of the Number of Employees
Who Participated in the Study as Respondents

Employees scheduled to participate   28
in the study as respondents

Employers of businesses with no employees, the   + 2
management of which were treated as employees

Employees engaged after commencement of the study   + 5

Employees terminated after commencement of the study   − 6

Employees absent on vacation   − 4

Employee from whom no rating forms were obtained   − 1

Employees who participated in   24
the study as respondents

Figure 12: Findings Based on Data Generated in the Course of the Study

	Combination Of			
	Figure 2 /Table 1	Figure 2 /Table 3	Figure 3 /Table 1	Figure 3 /Table 3
Employees				
First Choice	0/24(0%)	1/24(4%)	1/24(4%)	22/24(92%)
				$t = 5.153$*
Second Choice	1/24(4%)	4/24(17%)	18/24(75%)	1/24(4%)
		$t = 4.155$		
Third Choice	1/24(4%)	18/24(75%)	4/24(17%)	1/24(4%)
	$t = 6.705$			
Fourth Choice	22/24(92%)	1/24(4%)	1/24(4%)	0/24(0%)
Employers				
First Choice	1/9(11%)	1/9(11%)	0/9(0%)	7/9(78%)
Second Choice	0/9(0%)	2/9(22%)	6/9(67%)	1/9(11%)
Third Choice	2/9(22%)	5/9(56%)	2/9(22%)	0/9(0%)
Fourth Choice	6/9(67%)	1/9(11%)	1/9(11%)	1/9(11%)

*Where the value of t, with $df = 23$, between the mean ratings for the first choice of combination of Figure 3 and Table 3 and the second choice of combination of Figure 3 and Table 1, was determined to be 5.153.

APPENDIX 5

Identification number WCH(3p.6?)   Page 1 of ? pages
          Figure 2: The First Process Chart Employed
Task charted Checking computations by proofing machine
Task began with Rec. deposit slips, etc.
Task ended with Transf. checks/deposit slips to pickup box
Estimated percentage of time spent on task ___--rank __

_____
                                        Step in task
_____

Acquisition--receive Receives deposit slips/checks/cash
Process--check, compile, compose, receipts/withdrawal
        compute, determine, slips
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail
_____

Acquisition--receive Sorts checks made payable to cash/
Process--check, compile, compose, personal from business
        compute, determine, checks
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail
_____

Acquisition--receive Duplicates checks made payable to
Process--check, compile, compose, cash
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail
_____

Acquisition--receive Punches check amounts/codes on
Process--check, compile, compose, machine
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail
_____

Acquisition--receive Inserts/punches deposit slips on
Process--check, compile, compose, machine
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail
                                        Table 1 Verbs

Identification number WCH(3p.62)   Page 2 of 2 pa s
          Figure 2: The First Process Chart Employed
Task charted _____
Task began with _____/_____
Task ended with _____
Estimated percentage of time spent on task __--rank __

_____ Step in task _____

Acquisition--receive Totals/verifies all entries/debit,
Process--check, compile, compose, credit counters
         compute, determine, _____
         duplicate, operate, _____
         record, sort, type   _____
Disposition--call, deliver,   _____
         file, inform, mail   _____

Acquisition--receive Writes machine number, date on tape
Process--check, compile, compose _____
         compute, determine, _____
         duplicate, operate, _____
         record, sort, type   _____
Disposition--call, deliver,   _____
         file, inform, mail   _____

Acquisition--receive Attaches machine tapes to checks
Process--check, compile, compose, _____
         compute, determine, _____
         duplicate, operate, _____
         record, sort, type   _____
Disposition--call, deliver,   _____
         file, inform, mail   _____

Acquisition--receive Records recap totals on
Process--check, compile, compose; consolidation form
         compute, determine, _____
         duplicate, operate, _____
         record, sort, type   _____
Disposition--call, deliver,   _____
         file, inform, mail   _____

Acquisition--receive Transfers checks/deposit slips to
Process--check, compile, compose, pickup box
         compute, determine, _____
         duplicate, operate, _____
         record, sort, type   _____
Disposition--call, deliver,   _____
         file, inform, mail   _____
                                        Table 1 Verbs

Identification number <u>WCH(3p.62)</u> , Page <u>1</u> of <u>1</u> pages
Figure 3: The Second Process Chart Employed
Task charted <u>Checking computations by proofing machine</u>
Task began with <u>Rec. deposit slips, etc.</u>
Task ended with <u>Transf. checks/deposit slips to pickup box</u>
Estimated percentage of time spent on task __ --rank __

<u>Decision</u>
. <u>Acquisition</u>
. . <u>Process</u>
. . . <u>Disposition</u>
. . . . Step in task

. . . Receives deposit slips/checks/
cash receipts/withdrawal slips

. . . Sorts checks made payable to
cash/personal from business
checks

. . . Duplicates checks made payable to
cash

. . . Punches check amounts/codes on
machine

. . . Inserts/punches deposit slips in
machine

. . . Totals/verifies all entries/
debit, credit counters

. . . Writes machine number, date on
tape

. . . Attaches machine tapes to checks

. . . Records recap totals on
consolidation form

. . . Transfers checks/deposit slips to
pickup box

Table 1 Verbs

Identification number WCH(3p.62)   Page _1_ of _2_ pages
        Figure 2: The First Process Chart Employed
Task charted Checking computations by proofing machine
Task began with Rec. deposit slips, etc.
Task ended with Transf. checks/deposit slips to pickup box
Estimated percentage of time spent on task __--rank __

_____Step in task_____

Acquisition--receive Receives deposit slips/checks/cash
Process--check, compile, compose, receipts/withdrawal
        compute, determine, slips
        duplicate, operate, _____
        record, sort, type   _____
Disposition--call, deliver, _____
        file, inform, mail   _____

Acquisition--receive Sorts checks made payable to cash/
Process--check, compile, compose, personal from business
        compute, determine, checks
        duplicate, operate, _____
        record, sort, type   _____
Disposition--call, deliver, _____
        file, inform, mail   _____

Acquisition--receive Duplicates checks made payable to
Process--check, compile, compose, cash
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type   _____
Disposition--call, deliver, _____
        file, inform, mail   _____

Acquisition--receive Punches check amounts/codes on
Process--check, compile, compose, machine
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type   _____
Disposition--call, deliver, _____
        file, inform, mail   _____

Acquisition--receive Inserts/punches deposit slips in
Process--check, compile, compose, machine
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type   _____
Disposition--call, deliver, _____
        file, inform, mail   _____
                                        Table 3 Verbs

Identification number WCH(3p.62)   Page _2_ of _2_ pages

Figure 2:   The First Process Chart Employed

Task charted _____

Task began with _____

Task ended with _____

Estimated percentage of time spent on task __--rank __

_____ Step in task _____

Acquisition--receive Totals/verifies all entries/debit,
Process--check, compile, compose, credit counters
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Writes machine number, date on tape
Process--check, compile, compose, _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Attaches machine tapes to checks
Process--check, compile, compose, _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Records recap totals on
Process--check, compile, compose, consolidation form
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Transfers checks/deposit slips to
Process--check, compile, compose, pickup box
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Table 3 Verbs

Identification number WCH(3p.62)   Page _1_ of _1_ pages
          Figure 3:   The Second Process Chart Employed
Task charted Checking computations by proofing machine
Task began with Rec. deposit slips, etc.
Task ended with Transf. checks/deposit slips to pickup box
Estimated percentage of time spent on task __--rank __

Decision
.   Acquisition
.   .   Process
.   .   .   Disposition
.   .   .   .   Step in task

Receives deposit slips/checks/
cash receipts/withdrawal slips

Sorts checks made payable to
cash/personal from business
checks

Duplicates checks made payable to
cash

Punches check amounts/codes on
machine

Inserts/punches deposit slips in
machine

Totals/verifies all entries/
debit, credit counters

Writes machine number, date on
tape

Attaches machine tapes to checks

Records recap totals on
consolidation form

Transfers checks/deposit slips to
pickup box

Table 3 Verbs

Identification number WCH(8p.64)   Page _1_ of _3_ pages
            Figure 2:   The First Process Chart Employed
Task charted Handling receipts for customer accounts
Task began with Rec. customer passbook, etc.
Task ended with Del. cash rec., etc. and fil. deposit slip
Estimated percentage of time spent on task ____--rank __
_____
                                          Step in task

Acquisition--(receive) Receives customer passbook, deposit,
Process--check, compile, compose,   deposit slip
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Pulls customer record card
Process--check, compile, compose, _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        (file), inform, mail   _____

Acquisition--receive Determines whether or not date
Process--check, compile, compose, stamped on check,
        compute, (determine), deposit slip
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Stamps date on check, deposit slip
Process--check, compile, compose, (if not already
        compute, determine,   stamped)
        duplicate, operate,   _____
        (record), sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Checks endorsement/deposit/check
Process--(check), compile, compose, sums with deposit slips
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____
                                          Table 1 Verbs

Figure 2: The First Process Chart Employed

Task charted _____

Task began with _____

Task ended with _____

Estimated percentage of time spent on task ___--rank __

_____ Step in task

Acquisition--receive Computes interest _____

Process--check, compile, compose, _____

      (compute), determine, _____

      duplicate, operate, _____

      record, sort, type _____

Disposition--call, deliver, _____

      file, inform, mail _____

Acquisition--receive Subtracts interest from total loan

Process--check, compile, compose, payment _____

      (compute), determine, _____

      duplicate, operate, _____

      record, sort, type _____

Disposition--call, deliver, _____

      file, inform, mail _____

Acquisition--receive Determines whether amounts to be

Process--check, compile, compose, posted manually or by

      compute, (determine), machine _____

      duplicate, operate, _____

      record, sort, type _____

Disposition--call, deliver, _____

      file, inform, mail _____

Acquisition--receive Posts amounts manually (if these are

Process--check, compile, compose, to be posted manually)

      compute, determine, _____

      duplicate, operate, _____

      (record), sort, type _____

Disposition--call, deliver, _____

      file, inform, mail _____

Acquisition--receive Posts amounts by machine (if these

Process--check, compile, compose, are to be posted by

      compute, determine, machine) _____

      duplicate, operate, _____

      (record), sort, type _____

Disposition--call, deliver, _____

      file, inform, mail _____ Table 1 Verbs

Figure 2:　The First Process Chart Employed

Task charted _____

Task began with _____

Task ended with _____

Estimated percentage of time spent on task __--rank __

_____ :_____ Step in task _____

Acquisition--receive　Determines whether or not amount
Process--check, compile, compose,　already stamped with
　　　compute, determine, embosser
　　　duplicate, operate, _____
　　　record, sort, type _____
Disposition--call, deliver, _____
　　　　file, inform, mail _____

Acquisition--receive　Stamps amount with embosser (should
Process--check, compile, compose,　amount not already be
　　　compute, determine,　stamped)
　　　duplicate, operate, _____
　　　record, sort, type _____
Disposition--call, deliver, _____
　　　　file, inform, mail _____

Acquisition--receive　Writes cash amount on cash slip/
Process--check, compile, compose,　deposit receipt/payment
　　　compute, determine,　ticket
　　　duplicate, operate _____
　　　record, sort, type _____
Disposition--call, deliver _____
　　　　file, inform, mail _____

Acquisition--receive　Delivers cash receipts to money
Process--check, compile, compose,　drawer/passbook to
　　　compute, determine,　customer
　　　duplicate, operate, _____
　　　record, sort, type _____
Disposition--call, deliver, _____
　　　　file, inform, mail _____

Acquisition--receive　Files deposit slip
Process--check, compile, compose, _____
　　　compute, determine, _____
　　　duplicate, operate, _____
　　　record, sort, type _____
Disposition--call, deliver, _____
　　　　file, inform, mail _____

　　　　　　　　　　　　　　　Table 1 Verbs

Identification number WCH(8p.64)   Page 1 of 2 pages
          Figure 3:   The Second Process Chart Employed
Task charted Handling receipts for customer accounts.
Task began with Rec. customer passbook, etc.
Task ended with Del. cash rec., etc. and fil. deposit slip
Estimated percentage of time spent on task __--rank __

Decision
  .   Acquisition
  .   .   Process
  .   .   .   Disposition
  .   .   .   .   Step in task

Receives customer passbook,
deposit, deposit slip

Pulls customer record card

Determines whether or not date
stamped on check, deposit slip

Stamps date on check, deposit
slip (if not already stamped)

Checks endorsement/deposit/check
sums with deposit slips

Computes interest

Subtracts interest from total
loan payment

Determines whether amounts to be
posted manually or by machine

Posts amounts manually (if these
are to be posted manually)

Posts amounts by machine (if
these are to be posted by
machine)

Determines whether or not amount
already stamped with embosser

Stamps amount with embosser
(should amount not already be
stamped)

Writes cash amount on cash slip/
deposit receipt/payment ticket

Table 1 Verbs

Identification number WCH(8p.64)   Page 2 of 2 pages
        Figure 3:   The Second Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task __--rank __

Decision
     Acquisition
          Process
               Disposition
                              Step in task

                    Delivers cash receipts to money
                    drawer/passbook to customer

                    Files deposit slip

Table 1 Verbs

Identification number <u>WCH(8p.64)</u>   Page <u>1</u> of <u>3</u> pages
          Figure 2: The First Process Chart Employed
Task charted <u>Handling receipts for customer accounts</u>
Task began with <u>Rec. customer passbook, etc.</u>
Task ended with <u>Del. cash rec., etc. and fil. deposit slip</u>
Estimated percentage of time spent on task __--rank __

_____ Step in task _____

Acquisition--(receive) <u>Receives customer passbook, deposit,</u>
Process--check, compile, compose, <u>deposit slip</u>
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive <u>Pulls customer record card</u>
Process--check, compile, compose,   _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        (file), inform, mail   _____

Acquisition--receive <u>Determines whether or not date</u>
Process--check, compile, compose, <u>stamped on check,</u>
        compute, (determine), <u>deposit slip</u>
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive <u>Stamps date on check, deposit slip</u>
Process--check, compile, compose, <u>(if not already</u>
        compute, determine,   <u>stamped)</u>
        duplicate, operate,   _____
        (record), sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive <u>Checks endorsement/deposit/check</u>
Process--(check), compile, compose, <u>sums with deposit slips</u>
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____
                                        Table 3 Verbs

Identification number WCH(8p.64)   Page _2_ of _3_ pages
                Figure 2:   The First Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task ___--rank __

_____ Step in task _____

Acquisition--receive Computes interest _____
Process--check, compile, compose, _____
        Compute, determine, _____
        duplicate, operate, _____
        record, sort, type   _____
Disposition--call, deliver, _____
        file, inform, mail   _____

Acquisition--receive Computes net amount of loan payment __
Process--check, compile, compose, _____
        Compute, determine, _____
        duplicate, operate, _____
        record, sort, type   _____
Disposition--call, deliver, _____
        file, inform, mail   _____

Acquisition--receive Determines whether amounts to be _____
Process--check, compile, compose, posted manually or by ___
        compute, determine, machine _____
        duplicate, operate, _____
        record, sort, type   _____
Disposition--call, deliver, _____
        file, inform, mail   _____

Acquisition--receive Records amounts manually (if these ___
Process--check, compile, compose, are to be recorded _____
        compute, determine, manually) _____
        duplicate, operate, _____
        record, sort, type   _____
Disposition--call, deliver, _____
        file, inform, mail   _____

Acquisition--receive Records amounts by machine (if these _
Process--check, compile, compose, are to be recorded by ____
        compute, determine, machine) _____
        duplicate, operate, _____
        record, sort, type   _____
Disposition--call, deliver, _____
        file, inform, mail   _____
                                            Table 3 Verbs

Figure 2: The First Process Chart Employed

:k charted _____

:k began with _____ _____

:k ended with _____ _____

Estimated percentage   me spent on task __--rank __

_____

                                    Step in task

Acquisition--receive Determines whether or not amount
Process--check, compile, compose, already stamped with
      compute, determine, embosser
      duplicate, operate,
      record, sort, type
Disposition--call, deliver,
      file, inform, mail

Acquisition--receive Stamps amount with embosser (should
Process--check, compile, compose, amount not already be
      compute, determine, stamped)
      duplicate, operate,
      record, sort, type
Disposition--call, deliver,
      file, inform, mail

Acquisition--receive Writes cash amount on cash slip/
Process--check, compile, compose, deposit receipt/payment
      compute, determine, ticket
      duplicate, operate,
      record, sort, type
Disposition--call, deliver,
      file, inform, mail

Acquisition--receive Delivers cash receipts to money
Process--check, compile, compose, drawer/passbook to
      compute, determine, customer
      duplicate, operate,
      record, sort, type
Disposition--call, deliver,
      file, inform, mail

Acquisition--receive Files deposit slip
Process--check, compile, compose, _____
      compute, determine, _____
      duplicate, operate, _____
      record, sort, type _____
Disposition--call, deliver,
      file, inform, mail

                              Table 3 Verbs

Identification number WCH(8p.64)   Page _1_ of _2_ pages
        Figure 3:   The Second Process Chart Employed
Task charted Handling receipts for customer accounts
Task began with Rec. customer passbook, etc.
Task ended with Del. cash rec., etc. and fil. deposit slip
Estimated percentage of time spent on task __ --rank __

Decision
    Acquisition
        Process
            Disposition
                        . Step in task

                Receives customer passbook,
                deposit, deposit slip

                Pulls customer record card

                Determines whether or not date
                stamped on check, deposit slip

                Stamps date on check, deposit
                slip (if not already stamped)

                Checks endorsement/deposit/check
                sums with deposit slips

                Computes interest

                Computes net amount of loan
                payment

                Determines whether amounts to be
                posted manually or by machine

                Records amounts manually (if
                these are to be recorded
                manually)

                Records amounts by machine (if
                these are to be recorded by
                machine)

                Determines whether or not amount
                already stamped with embosser

                Stamps amount with embosser
                (should amount not already be
                stamped)

                Writes cash amount on cash slip/

                                    Table 3 Verbs

Identification number WCH(8p.64)   Page _2_ of _2_ pages

Figure 3:   The Second Process Chart Employed

Task charted _____

Task began with _____

Task ended with _____

Estimated percentage of time spent on task __--rank__

Decision
.   Acquisition
.   .   Process
.   .   .   Disposition
.   .   .   .   _____Step in task_____

.   .   .   .   deposit receipt/payment ticket_____

.   .   .   .   Delivers cash receipts to money___
.   .   .   .   drawer/passbook to customer_____

.   .   .   .   Files deposit slip_____

Table 3 Verbs

Identification number WCH(49p.80)   Page _1_ of _3_ pages
        Figure 2: The First Process Chart Employed
Task charted Handling over-the-counter requests, etc.
Task began with Rec. cust./tel. inquiries/checks
Task ended with Del. info./messages, mail. m-f's, etc.
Estimated percentage of time spent on task __ --rank __

                                        Step in task

Acquisition--receive Receives customers/telephone
Process--check, compile, compose,   inquiries/checks
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Obtains caller's name, account
Process--check, compile, compose,   number, insurance
        compute, determine,   policies
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Checks records for information
Process--check, compile, compose, _____
        compute, determine,   _____ _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Explains bank policies, charges
Process--check, compile, compose, _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Obtains microfilm of requested
Process--check, compile, compose,   information
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____
                                        Table 1 Verbs

Identification number WCH(49p.80)   Page _2_ of _3_ pages
Figure 2: The First Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task __--rank __

_____   Step in task

Acquisition--receive Determines whether or not can answer
Process--check, compile, compose, inquiry
     compute, determine,
     duplicate, operate,
     record, sort, type
Disposition--call, deliver,
     file, inform, mail

Acquisition--receive Transfers call (if cannot answer)
Process--check, compile, compose,
     compute, determine,
     duplicate, operate,
     record, sort, type
Disposition--call, deliver,
     file, inform, mail

Acquisition--receive Answers questions regarding
Process--check, compile, compose, customer accounts
     compute, determine,
     duplicate, operate,
     record, sort, type
Disposition--call, deliver,
     file, inform, mail

Acquisition--receive Calls branch bank to check on
Process--check, compile, compose, missing information/
     compute, determine, customer
     duplicate, operate,
     record, sort, type
Disposition--call, deliver,
     file, inform, mail

Acquisition--receive Requests customer send another
Process--check, compile, compose, check/come in to bank
     compute, determine,
     duplicate, operate,
     record, sort, type
Disposition--call, deliver,
     file, inform, mail
_____Table 1 Verbs

Identification number WCH(49p.80)   Page 3 of 3 pages
            Figure 2:   The First Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task ___--rank __

                                        Step in task

Acquisition--receive Delivers information/messages _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
          file, inform, mail _____

Acquisition--receive Mails microfilms _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
          file, inform, mail _____

Acquisition--receive Files checks, ledger card _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
          file, inform, mail _____

Acquisition--receive Holds letter for enclosure _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
          file, inform, mail _____

Acquisition--receive _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
          file, inform, mail _____
                                        Table 1 Verbs

Identification number WCH(49p.80)   Page _1_ of _1_ pages
        Figure 3:   The Second Process Chart Employed
Task charted Handling over-the-counter requests, etc.
Task began with Rec. cust./tel. inquiries/checks
Task ended with Del. info./messages, mail. m-f's, etc.
Estimated percentage of time spent on task __ --rank __

Decision
.   Acquisition
.   .   Process
.   .   .   Disposition
.   .   .   .   Step in task

.   .   .   .   Receives customers/telephone
.   .   .   .   inquiries/checks

.   .   .   .   Obtains caller's name, account
.   .   .   .   number, insurance policies

.   .   .   .   Checks records for information

.   .   .   .   Explains bank policies, charges

.   .   .   .   Obtains microfilm of requested
.   .   .   .   information

.   .   .   .   Determines whether or not can
.   .   .   .   answer inquiry

.   .   .   .   Transfers call (if cannot answer)

.   .   .   .   Answers questions regarding
.   .   .   .   customer accounts

.   .   .   .   Calls branch bank to check on
.   .   .   .   missing information/customer

.   .   .   .   Requests customer send another
.   .   .   .   check/come in to bank

.   .   .   .   Delivers information/messages

.   .   .   .   Mails microfilms

.   .   .   .   Files checks, ledger card

.   .   .   .   Holds letter for enclosure

.   .   .   .

.   .   .   .

.   .   .   .

.   .   .   .   Table 1 Verbs

Identification number WCH(49p.80)   Page _1_ of _3_ pages
        Figure 2:   The First Process Chart Employed
Task charted Handling over-the-counter requests, etc.
Task began with Rec. cust./tel. inquiries/checks
Task ended with Del. info./messages, mail. m-f's, etc.
Estimated percentage of time spent on task __--rank __

                                        Step in task

Acquisition--(receive) Receives customers/telephone
Process--check, compile, compose,   inquiries/checks
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail

Acquisition--receive Obtains caller's name, account
Process--check, (compile), compose,   number, insurance
        compute, determine,   policies
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail

Acquisition--receive Checks records for information
Process--(check), compile, compose,
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail

Acquisition--receive Directs customer in bank policies,
Process--check, compile, compose,   charges
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, (inform), mail

Acquisition--receive Obtains microfilm of requested
Process--check, (compile), compose,   information
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail

                                        Table 3 Verbs

Identification number WCH(49p.80)   Page _2_ of _3_ pages
       Figure 2: The First Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task ___--rank __

_____ Step in task _____

Acquisition--receive Determines whether or not can answer
Process--check, compile, compose, inquiry _____
      compute, determine, _____
      duplicate, operate, _____
      record, sort, type _____
Disposition--call, deliver, _____
      file, inform, mail _____

Acquisition--receive Transfers call (if cannot answer) ____
Process--check, compile, compose, _____
      compute, determine, _____
      duplicate, operate, _____
      record, sort, type _____
Disposition--call, deliver, _____
      file, inform, mail _____

Acquisition--receive Answers questions regarding _____
Process--check, compile, compose, customer accounts _____
      compute, determine, _____
      duplicate, operate, _____
      record, sort, type _____
Disposition--call, deliver, _____
      file, inform, mail _____

Acquisition--receive Calls branch bank to check on _____
Process--check, compile, compose, missing information/ ___
      compute, determine, customer _____
      duplicate, operate, _____
      record, sort, type _____
Disposition--call, deliver, _____
      file, inform, mail _____

Acquisition--receive Requests customer send another _____
Process--check, compile, compose, check/come in to bank ___
      compute, determine, _____
      duplicate, operate, _____
      record, sort, type _____
Disposition--call, deliver, _____
      file, inform, mail _____

                                          Table 3 Verbs

Identification number WCH(49p.80)   Page _3_ of _3_ pages
        Figure 2:   The First Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task __--rank __

                                           Step in task .

Acquisition--receive Delivers information/messages ____
Process--check, compile, compose, _____
       compute, determine,   _____
       duplicate, operate,   _____
       record, sort, type   _____
Disposition--call, deliver,   _____
             file, inform, mail _____

Acquisition--receive Mails microfilms _____
Process--check, compile, compose, _____
       compute, determine,   _____
       duplicate, operate,   _____
       record, sort, type   _____
Disposition--call, deliver,   _____
             file, inform, mail _____

Acquisition--receive Files checks, ledger card _____
Process--check, compile, compose, _____
       compute, determine,   _____
       duplicate, operate,   _____
       record, sort, type   _____
Disposition--call, deliver,   _____
             file, inform, mail _____

Acquisition--receive Holds letter for enclosure _____
Process--check, compile, compose, _____
       compute, determine,   _____
       duplicate, operate,   _____
       record, sort, type   _____
Disposition--call, deliver,   _____
             file, inform, mail _____

Acquisition--receive _____
Process--check, compile, compose, _____
       compute, determine,   _____
       duplicate, operate,   _____
       record, sort, type   _____
Disposition--call, deliver,   _____
             file, inform, mail _____
                                          Table 3 Verbs

Identification number <u>WCH(49p.80)</u>   Page <u>1</u> of <u>1</u> pages
          Figure 3:   The Second Process Chart Employed
Task charted <u>Handling over-the-counter requests, etc.</u>
Task began with <u>Rec. cust./tel. inquiries/checks</u>
Task ended with <u>Del. info./messages, mail. m-f's, etc.</u>
Estimated percentage of time spent on task __ --rank __

Decision
.   Acquisition
.   .   Process
.   .   .   Disposition
.   .   .   .   Step in task

                                        Receives customers/telephone
                                        inquiries/checks

                                        Obtains caller's name, account
                                        number, insurance policies

                                        Checks records for information

                                        Directs customer in bank
                                        policies, charges

                                        Obtains microfilm of requested
                                        information

                                        Determines whether or not can
                                        answer inquiry

                                        Transfers call (if cannot answer)

                                        Answers questions regarding
                                        customer accounts

                                        Calls branch bank to check on
                                        missing information/customer

                                        Requests customer send another
                                        check/come in to bank

                                        Delivers information/messages

                                        Mails microfilm

                                        Files checks, ledger card

                                        Holds letter for enclosure

                                                          Table 3 Verbs

Identification number WCH(54p.83)   Page _1_ of _3_ pages
          Figure 2: The First Process Chart Employed
Task charted <u>Compiling and typing reports and bulletins</u>
Task began with <u>Rec. rough drafts, etc.</u>
Task ended with <u>Del. rep., mail. bulletins, and fil. cards</u>
Estimated percentage of time spent on task __ --rank __

                                        <u>Step in task</u>

<u>Acquisition--</u>receive <u>Receives rough drafts/bulletins/</u>
<u>Process</u>--check, compile, compose, <u>cards</u>
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
<u>Disposition</u>--call, deliver,   _____
          file, inform, mail   _____

<u>Acquisition</u>--receive <u>Obtains news clippings of bankruptcy</u>
<u>Process</u>--check, compile, compose, <u>listings</u>
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
<u>Disposition</u>--call, deliver,   _____
          file, inform, mail   _____

<u>Acquisition</u>--receive <u>Pulls previous month's report/loan</u>
<u>Process</u>--check, compile, compose, <u>ledger sheet</u>
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
<u>Disposition</u>--call, deliver,   _____
          file, inform, mail   _____

<u>Acquisition</u>--receive <u>Checks material/format/totals/report</u>
<u>Process</u>--check, compile, compose, <u>for accuracy</u>
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
<u>Disposition</u>--call, deliver,   _____
          file, inform, mail   _____

<u>Acquisition</u>--receive <u>Computes interest/deposit ticket</u>
<u>Process</u>--check, compile, compose, <u>totals/number/percent</u>
        compute, determine,   <u>calls made</u>
        duplicate, operate,   _____
        record, sort, type   _____
<u>Disposition</u>--call, deliver,   _____
          file, inform, mail   _____
                                        Table 1 Verbs

Identification number <u>WCH</u>(54p.83)   Page <u>2</u> of <u>3</u> pages
          Figure 2: <u>The First Process Chart Employed</u>
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task __--rank __

_____ Step in task _____

<u>Acquisition</u>--receive <u>Writes bankruptcy names/unpaid</u>
<u>Process</u>--check, compile, (compose) <u>balances on report</u>
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
<u>Disposition</u>--call, deliver, _____
        file, inform, mail _____

<u>Acquisition</u>--receive <u>Records unpaid totals on records/</u>
<u>Process</u>--check, compile, compose, <u>solicitation</u>
        compute, determine, <u>information on cards</u>
        duplicate, operate, _____
        (record) sort, type _____
<u>Disposition</u>--call, deliver, _____
        file, inform, mail _____

<u>Acquisition</u>--receive <u>Types reports/bulletins/lists</u>
<u>Process</u>--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, (type) _____
<u>Disposition</u>--call, deliver, _____
        file, inform, mail _____

<u>Acquisition</u>--receive <u>Proofreads materials</u>
<u>Process</u>--(check) compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
<u>Disposition</u>--call, deliver, _____
        file, inform, mail _____

<u>Acquisition</u>--receive <u>Obtains approval</u>
<u>Process</u>--check, (compile) compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
<u>Disposition</u>--call, deliver, _____
        file, inform, mail _____
                                        Table 1 Verbs

Identification number WCH(54p.83)   Page 3 of 3 pages
        gure 2:   The First Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task __--rank __

                                         Step in task _____

Acquisition--receive Duplicates/staples reports _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform, mail _____

Acquisition--receive Delivers reports _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform, mail _____

Acquisition--receive Mails bulletins _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform, mail _____

Acquisition--receive Files cards _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform, mail _____

Acquisition--recei _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform, mail _____

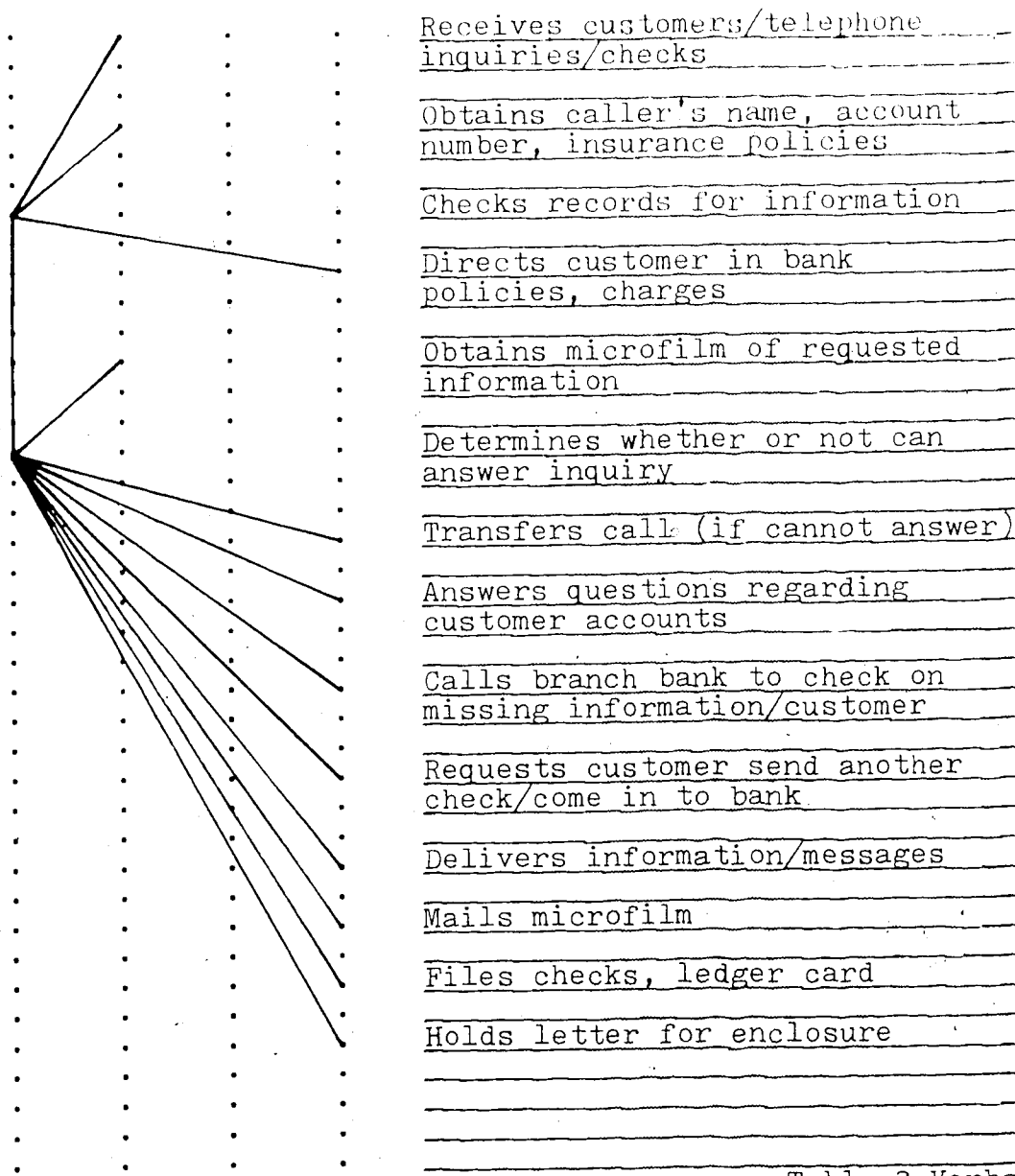   Table 1 Verbs

Identification number <u>WCH(54p.83)</u>   Page <u>1</u> of <u>1</u> pages
        Figure 3: <u>The Second Process Chart Employed</u>
Task charted <u>Compiling and typing reports and bulletins</u>
Task began with <u>Rec. rough drafts, etc.</u>
Task ended with <u>Del. rep., mail. bulletins, and fil. cards</u>
Estimated percentage of time spent on task __ --rank __

<u>Decision</u>
     <u>Acquisition</u>
          <u>Process</u>
               <u>Disposition</u>
                         <u>Step in task</u>

                    <u>Receives rough drafts/bulletins/</u>
                    <u>cards</u>

                    <u>Obtains news clippings of</u>
                    <u>bankruptcy listings</u>

                    <u>Pulls previous month's report/</u>
                    <u>loan ledger sheet</u>

                    <u>Checks material/format/totals/</u>
                    <u>report for accuracy</u>

                    <u>Computes interest/deposit ticket</u>
                    <u>totals/number/percent calls made</u>

                    <u>Writes bankruptcy names/unpaid</u>
                    <u>balances on report</u>

                    <u>Records unpaid totals on records/</u>
                    <u>solicitation information on cards</u>

                    <u>Types reports/bulletins/lists</u>

                    <u>Proofreads materials</u>

                    <u>Obtains approval</u>

                    <u>Duplicates/staples reports</u>

                    <u>Delivers reports</u>

                    <u>Mails bulletins</u>

                    <u>Files cards</u>

                                   Table 1 Verbs

Identification number <u>WCH(54p.83)</u>   Page <u>1</u> of <u>3</u> pages
       Figure 2:   The First Process Chart Employed
Task charted <u>Compiling and typing reports and bulletins</u>
Task began with <u>Rec. rough drafts, etc.</u>
Task ended with <u>Del. rep., mail. bulletins, and fil. cards</u>
Estimated percentage of time spent on task <u>   --rank</u>

_____
                                    Step in task
_____

<u>Acquisition</u>--receive Receives rough drafts/bulletins/
<u>Process</u>--check, compile, compose, <u>cards</u>
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
<u>Disposition</u>--call, deliver,   _____
        file, inform, mail   _____
_____

<u>Acquisition</u>--receive Obtains news clippings of bankruptcy
<u>Process</u>--check, compile, compose, <u>listings</u>
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
<u>Disposition</u>--call, deliver,   _____
        file, inform, mail   _____
_____

<u>Acquisition</u>--receive <u>Pulls previous month's report/loan</u>
<u>Process</u>--check, compile, compose, <u>ledger sheet</u>
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
<u>Disposition</u>--call, deliver,   _____
        file, inform, mail   _____
_____

<u>Acquisition</u>--receive <u>Checks material/format/totals/report</u>
<u>Process</u>--check, compile, compose, <u>for accuracy</u>
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
<u>Disposition</u>--call, deliver,   _____
        file, inform, mail   _____
_____

<u>Acquisition</u>--receive <u>Computes interest/deposit ticket</u>
<u>Process</u>--check, compile, compose, <u>totals/number/percent</u>
        compute, determine,   <u>calls made</u>
        duplicate, operate,   _____
        record, sort, type   _____
<u>Disposition</u>--call, deliver,   _____
        file, inform, mail   _____
_____
                                    Table 3 Verbs

Identification number WCH(54p.83)   Page 2 of 3 pages

Figure 2: The First Process Chart Employed

Task charted _____

Task began with _____

Task ended with _____

Estimated percentage of time spent on task __ --rank __

_____ Step in task _____

Acquisition--receive Writes bankruptcy names/unpaid

Process--check, compile, compose   balances on report

compute, determine,   _____

duplicate, operate,   _____

record, sort, type   _____

Disposition--call, deliver,   _____

file, inform, mail   _____

_____

Acquisition--receive Records unpaid totals on records/

Process--check, compile, compose,   solicitation

compute, determine,   information on cards

duplicate, operate,   _____

record, sort, type   _____

Disposition--call, deliver,   _____

file, inform, mail   _____

_____

Acquisition--receive Types reports/bulletins/lists

Process--check, compile, compose,   _____

compute, determine,   _____

duplicate, operate,   _____

record, sort, type   _____

Disposition--call, deliver,   _____

file, inform, mail   _____

_____

Acquisition--receive Proofreads materials

Process--check, compile, compose,   _____

compute, determine,   _____

duplicate, operate,   _____

record, sort, type   _____

Disposition--call, deliver,   _____

file, inform, mail   _____

_____

Acquisition--receive Obtains approval

Process--check, compile, compose,   _____

compute, determine,   _____

duplicate, operate,   _____

record, sort, type   _____

Disposition--call, deliver,   _____

fi , inform, mail   _____

_____ Table 3 Verbs

Identification number WCH(54p.83)   Page _3_ of _3_ pages
          Figure 2:   The First Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task __ --rank __

_____ Step in task _____

Acquisition--receive Duplicates/staples reports _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform, mail _____

Acquisition--receive Delivers reports _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform, mail _____

Acquisition--receive Mails bulletins _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform, mail _____

Acquisition--receive Files cards _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform, mail _____

Acquisition--receive _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform, mail _____
                                    Table 3 Verbs

Identification number WCH(54p.83)   Page 1 of 1 pages
        Figure 3:   The Second Process Chart Employed
Task charted Compiling and typing reports and bulletins
Task began with Rec. rough drafts, etc.
Task ended with Del. rep., mail. bulletins, and fil. cards
Estimated percentage of time spent on task ---rank

Decision
.   Acquisition
.   .   Process
.   .   .   Disposition
.   .   .   .   Step in task

.   .   .   .   Receives rough drafts/bulletins/
.   .   .   .   cards

.   .   .   .   Obtains news clippings of
.   .   .   .   bankruptcy listings

.   .   .   .   Pulls previous month's report/
.   .   .   .   loan ledger sheet

.   .   .   .   Checks material/format/totals/
.   .   .   .   report for accuracy

.   .   .   .   Computes interest/deposit ticket
.   .   .   .   totals/number/percent calls made

.   .   .   .   Writes bankruptcy names/unpaid
.   .   .   .   balances on report

.   .   .   .   Records unpaid totals on records/
.   .   .   .   solicitation information on cards

.   .   .   .   Types reports/bulletins/lists

.   .   .   .   Proofreads materials

.   .   .   .   Obtains approval

.   .   .   .   Duplicates/staples reports

.   .   .   .   Delivers reports

.   .   .   .   Mails bulletins

.   .   .   .   Files cards

.   .   .   .

.   .   .   .

.   .   .   .

.   .   .   .   Table 3 Verbs

Identification number WCH(1p.88)   Page __1_ of _3_ pages
            Figure 2:   The First Process Chart Employed
Task charted Sched. and rec. patients for med. appoint.
Task began with Rec. appoint. request/patient
Task ended with Dir. patient, etc. and del. X-rays, etc.
Estimated percentage of time spent on task __--rank _

                                                    Step in task

Acquisition--receive Receives appointment request/patient
Process--check, compile, compose, _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Checks appointment book/type of
Process--check, compile, compose,   X-ray
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Determines whether or not
Process--check, compile, compose,   appointment should be
        compute, determine,   arranged
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Transfers to waiting list
Process--check, compile, compose,   _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Confirms appointment time, date
Process--check, compile, compose,   _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

                                            Table 1 Verbs

Figure 2:   The First Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task ___--rank ___

_____ Step in task

Acquisition--receive Instructs patient in X-ray
Process--check, compile, compose, preparation
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail

Acquisition--receive Writes appointment card/patient
Process--check, compile, compose, chart/new patient card/
        compute, determine, appointment book
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail

Acquisition--receive Records appointment/cancellation in
Process--check, compile, compose, appointment book
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail

Acquisition--receive Calls Medical Records to inform of
Process--check, compile, compose, next day's appointments
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail

Acquisition--receive Obtains records/patient signature in
Process--check, compile, compose, register book
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail

                                    Table 1 Verbs

Identification number WCH(1p.88)   Page 3 of 3 pages
        Figure 2: The First Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task ___--rank __

_____ Step in task ____

Acquisition--receive   Attaches appointment card to record
Process--check, compile, compose, _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Directs patient to X-ray/doctor's
Process--check, compile, compose, office
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive Delivers X-rays/charts to doctor
Process--check, compile, compose, _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive _____
Process--check, compile, compose, _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive _____
Process--check, compile, compose, _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

                                        Table 1 Verbs

Identification number WCH(1p.88)   Page _1_ of _1_ pages
          Figure 3:   The Second Process Chart Employed
Task charted Sched. and rec. patients for med. appoint.
Task began with Rec. appoint. request/patient
Task ended with Dir. patient, etc. and del. X-rays, etc.
Estimated percentage of time spent on task __ --rank __

Decision
.   Acquisition
.   .   Process
.   .   .   Disposition
.   .   .   .   Step in task

Receives appointment request/
patient

Checks appointment book/type of
X-ray

Determines whether or not
appointment should be arranged

Transfers to waiting list

Confirms appointment time, date

Instructs patient in X-ray
preparation

Writes appointment card/patient
chart/new patient card/
appointment list

Records appointment/cancellation
in appointment book

Calls Medical Records to inform
of next day's appointments

Obtains records/patient signature
in register book

Attaches appointment card to
record

Directs patient to X-ray/doctor's
office

Delivers X-rays/charts to doctor

Table 1 Verbs

Identification number WCH(1p.'88)   Page __1_ of __3_ pages
          Figure 2:   The First Process Chart Employed
Task charted Sched. and rec. patients for med. appoint.
Task began with Rec. appoint. request/patient
Task ended with Dir. patient, etc. and del. X-rays, etc.
Estimated percentage of time spent on task ___--rank __

                                         Step in task

Acquisition--receive   Receives appointment request/patient
Process--check, compile, compose, _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive   Checks appointment book/type of
Process--check, compile, compose, X-ray
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive   Determines whether or not
Process--check, compile, compose, appointment should be
        compute, determine, arranged
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive   Transfers to waiting list
Process--check, compile, compose, _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____

Acquisition--receive   Verifies appointment time, date
Process--check, compile, compose, _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
        file, inform, mail   _____
                                         Table 3 Verbs

        Figure 2:   The First Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task ___--rank __

_____ Step in task _____

Acquisition--receive   Directs patient in X-ray preparation
Process--check, compile, compose,   _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
            file, inform, mail   _____

Acquisition--receive   Writes appointment card/patient _____.
Process--check, compile, compose,   chart/new patient card/
        compute, determine,   appointment list _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
            file, inform, mail   _____

Acquisition--receive   Records appointment/cancellation in
Process--check, compile, compose,   appointment book _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
            file, inform, mail   _____

Acquisition--receive   Calls Medical Records to inform of ____
Process--check, compile, compose,   next day's appointments
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
            file, inform, mail   _____

Acquisition--receive   Obtains records/patient signature in
Process--check, compile, compose,   register book _____
        compute, determine,   _____
        duplicate, operate,   _____
        record, sort, type   _____
Disposition--call, deliver,   _____
            file, inform, mail   _____
                                    _____Table 3 Verbs_

Identification number WCH(1p.88-)   Page 3 of 3 pages
          Figure 2: The First Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task __--rank __

                                        Step in task

Acquisition--receive   Attaches appointment card to record
Process--check, compile, compose,
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
            file, inform, mail

Acquisition--receive ___ts patient to X-ray/doctor's
Process--check, com____pose,   office
    _   , compute, d
        duplicate,
        record, sor
Disposition--cal
            file, inform, mail

Acquisition--receive   Delivers X-rays/charts to doctor
Process--check, compile, compose,
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
            file, inform, mail

Acquisition--receive _____
Process--check, compile, compose,
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
            file, inform, mail

Acquisition--receive _____
Process--check, compile, compose,
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
            file, inform, mail
                                        Table 3 Verbs

Identification number WCH(1p.88)   Page 1 of 1 pages
          Figure 3: The Second Process Chart Employed
Task charted Sched. and rec. patients for med. appoint.
Task began with Rec. appoint. request/patient
Task ended with Dir. patient, etc. and del. X-rays, etc.
Estimated percentage of time spent on task __ --rank __

Decision
     .   Acquisition
     .   .   Process
     .   .   .   Disposition
     .   .   .   . ,   Step in task

Receives appointment request/
patient

Checks appointment book/type of
X-ray

Determines whether or not
appointment should be arranged

Transfers to waiting list

Verifies appointment time, date

Directs patient in X-ray
preparation

Writes appointment card/patient
chart/new patient card/
appointment list

Records appointment/cancellation
in appointment book

Calls Medical Records to inform
of next day's appointments

Obtains records/patient
signature in register book

Attaches appointment card to
record

Directs patient to X-ray/doctor's
office

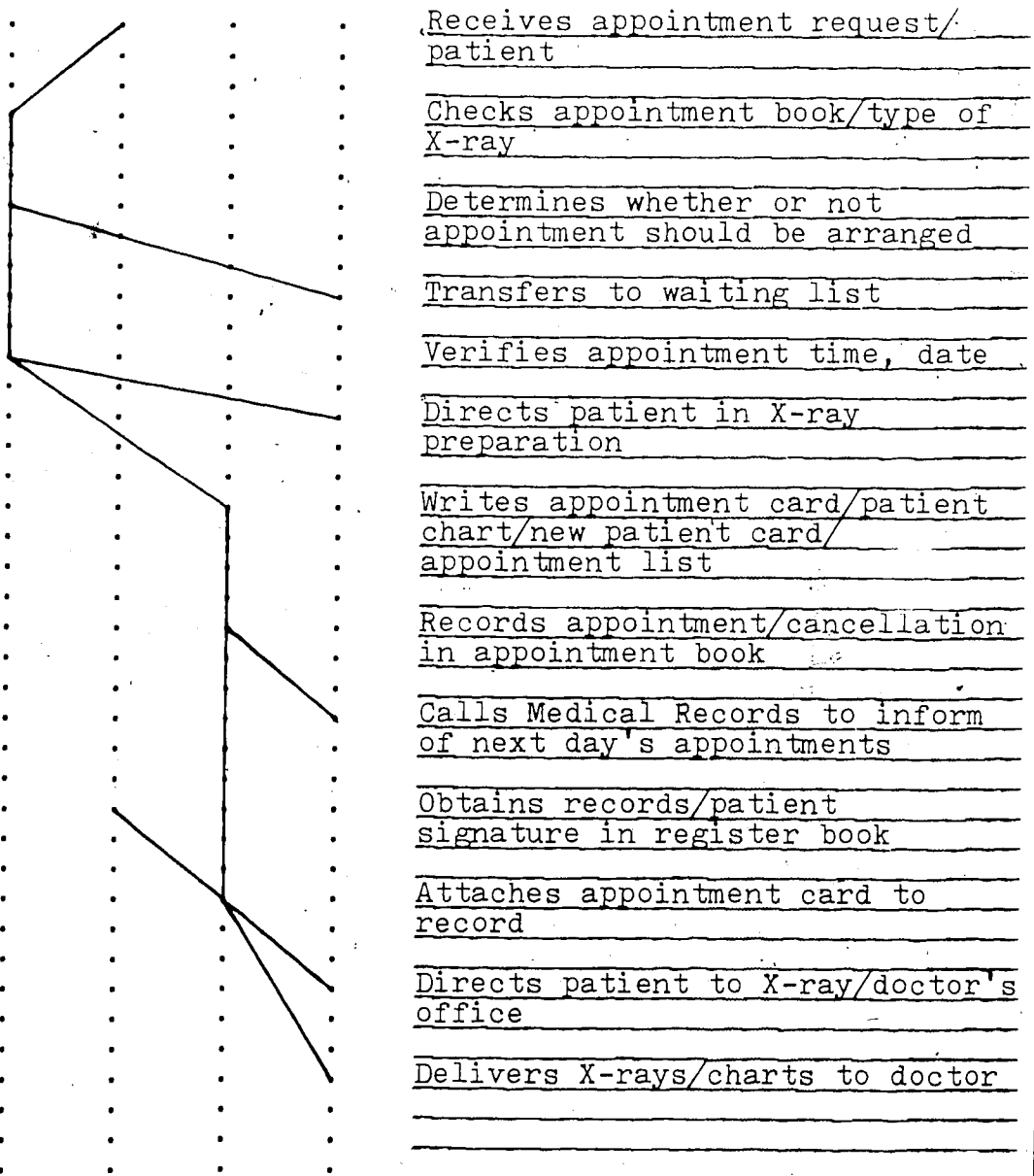Delivers X-rays/charts to doctor

Table 3 Verbs

Identification number WCH(13p.96)   Page 1 of 2 pages
      Figure 2:   The First Process Chart Employed
Task charted Answering questions re patient billing
Task began with Rec. telephone billing inquiry
Task ended with Send. statement to patient
Estimated percentage of time spent on task ___--rank _

                                    Step in task

Acquisition--receive Receives telephone billing inquiry
Process--check, compile, compose,
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail

Acquisition--receive Writes caller name, requested
Process--check, compile, compose, information
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail

Acquisition--receive Pulls ledger card
Process--check, compile, compose,
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail

Acquisition--receive Determines whether or not can
Process--check, compile, compose, explain
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail

Acquisition--receive Refers to supervisor (if cannot
Process--check, compile, compose, explain)
        compute, determine,
        duplicate, operate,
        record, sort, type
Disposition--call, deliver,
        file, inform, mail
                                    Table 1 Verbs

Identification number WCH(13p.96)   Page _2 of _2 pages
            Figure 2:   The First Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task __--rank __

                                              Step in task
_____

Acquisition--receive Explains charge, claim procedures ____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform, mail _____
_____

Acquisition--receive Determines whether or not error made
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform mail _____
_____

Acquisition--receive Writes memo to correct error (if one
Process--check, compile, compose, made) _____
        compute, determine _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform, mail _____
_____

Acquisition--receive Types notation on ledger card/new
Process--check, compile, compose, statement (if error ____
        compute, determine, made) _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform, mail _____
_____

Acquisition--receive Sends statement to patient _____
Process--check, compile, compose, _____
        compute, determine, _____
        duplicate, operate, _____
        record, sort, type _____
Disposition--call, deliver, _____
        file, inform, mail _____
                                          Table 1 Verbs

Identification number <u>WCH(13p.96)</u>   Page <u>1</u> of <u>1</u> pages

<u>Figure 3: The Second Process Chart Employed</u>

Task charted <u>Answering questions re patient billing</u>

Task began with <u>Rec. telephone billing inquiry</u>

Task ended with <u>Send. statement to patient</u>

Estimated percentage of time spent on task ___--rank __

<u>Decision</u>
.   <u>Acquisition</u>
.   .   <u>Process</u>
.   .   .   <u>Disposition</u>
.   .   .   .   <u>Step in task ·</u>

Receives telephone billing inquiry

Writes caller name, requested information

Pulls ledger card

Determines whether or not can explain

Refers to s.._rvisor (if cannot explain

Explains charge, claim procedures

Determines whether or not error made

Writes memo to correct error (if one made)

Types notation on ledger card/new statement (if error made)

Sends statement to patient
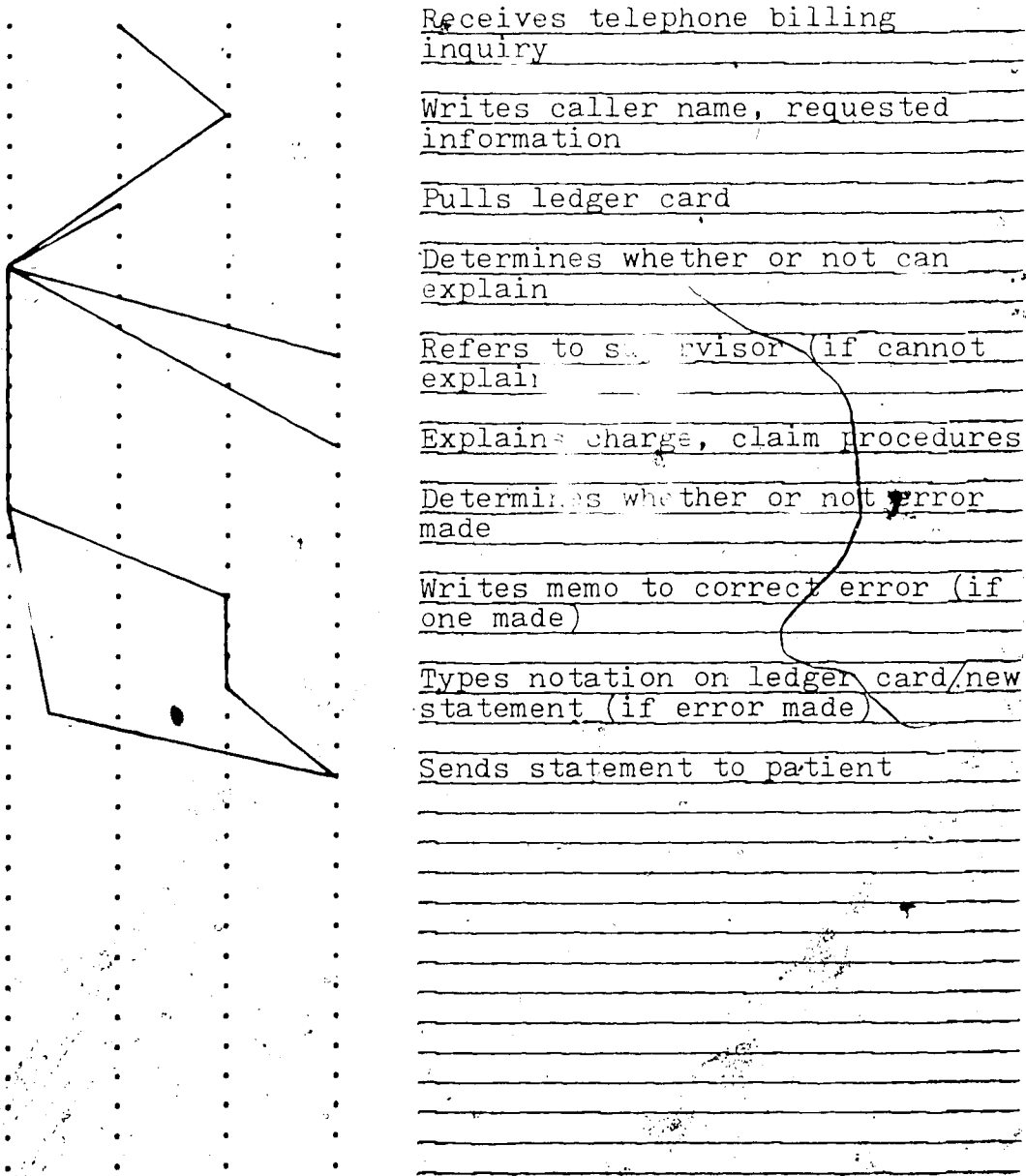
Table 1 Verbs

Identification number <u>WCH(13p.96)</u>   Page <u>1</u> of <u>2</u> pages
          <u>Figure 2: The First Process Chart Employed</u>
Task charted <u>Answering questions re patient billing</u>
Task began with <u>Rec. telephone billing inquiry</u>
Task ended with <u>Send. statement to patient</u>
Estimated percentage of time spent on task <u>__</u>--rank <u>_</u>

Step in task

<u>Acquisition--</u>receive <u>Receives telephone billing inquiry</u>
<u>Process--</u>check, compile, compose,
        compute, determine,
        duplicate, operate,
        record, sort, type
<u>Disposition--</u>call, deliver,
        file, inform, mail

<u>Acquisition--</u>receive <u>Writes caller name, requested</u>
<u>Process--</u>check, compile, compose, <u>information</u>
        compute, determine,
        duplicate, operate,
        record, sort, type
<u>Disposition--</u>call, deliver,
        file, inform, mail

<u>Acquisition--</u>receive <u>Pulls ledger card</u>
<u>Process--</u>check, compile, compose,
        compute, determine,
        duplicate, operate,
        record, sort, type
<u>Disposition--</u>call, deliver,
        file, inform, mail

<u>Acquisition--</u>receive <u>Determines whether or not can</u>
<u>Process--</u>check, compile, compose, <u>explain</u>
        compute, determine,
        duplicate, operate,
        record, sort, type
<u>Disposition--</u>call, deliver,
        file, inform, mail

<u>Acquisition--</u>receive <u>Refers to supervisor (if cannot</u>
<u>Process--</u>check, compile, compose, <u>explain)</u>
        compute, determine,
        duplicate, operate,
        record, sort, type
<u>Disposition--</u>call, deliver,
        file, inform, mail
                                    <u>Table 3 Verbs</u>

Identification number WCH(13p.96)   Page _2_ of _2_ pages
          Figure 2:   The First Process Chart Employed
Task charted _____
Task began with _____
Task ended with _____
Estimated percentage of time spent on task __--rank __

_____   Step in task_____

Acquisition--receive   Direc s customer on charge, claim
Process--check, compi   pose, procedures
          compute, dete
          duplicate, ope
          record, sort, type
Disposition--call, deliver,
          file, inform, mail

Acquisition--receive   Determines whether or not error made
Process--check, compile, compose,
          compute, determine,
          duplicate, operate,
          record, sort, type
Disposition--call, deliver,
          file, inform, mail

Acquisition--receive   Writes memo to correct error (if one
Process--check, compile, compose,   made)
          compute, determine,
          duplicate, operate,
          record, sort, type
Disposition--call, deliver,
          file, inform, mail

Acquisition--receive   Types notation on ledger card/new
Process--check, compile, compose, statement (if error
          compute, determine, made)
          duplicate, operate,
          record, sort, type
Disposition--call, deliver,
          file, inform, mail

Acquisition--receive   Sends statement to patient
Process--check, compile, compose,
          compute, determine,
          duplicate, operate,
          record, sort, type
Disposition--call, deliver,
          file, inform, mail
                                        Table 3 Verbs

Identification number WCH(13p.96)   Page _1_ of _1_ pages
        Figure 3:   The Second Process Chart Employed
Task charted Answering questions re patient billing
Task began with Rec. telephone billing inquiry
Task ended with Send. statement to patient   /
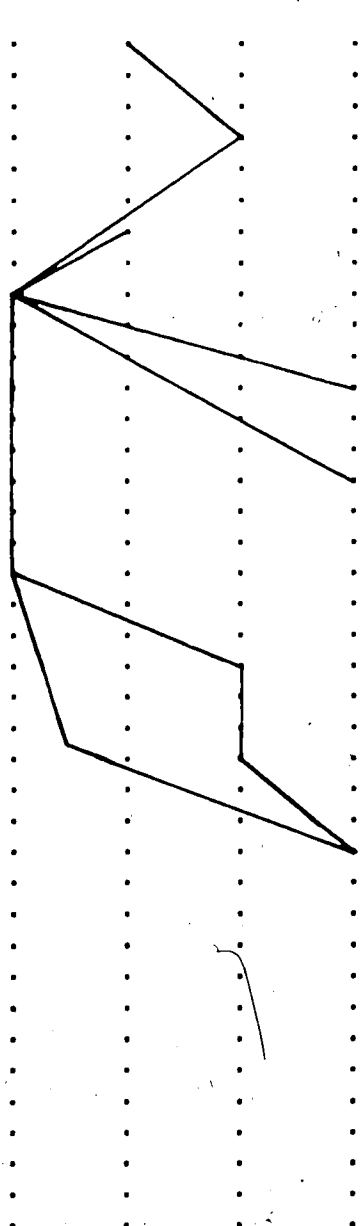Estimated percentage of time spent on task __--rank __

Decision
. ,   Acquisition
.   .   Process
.   .   .   Disposition
.   .   .   .   Step in task

.   .   .   Receives telephone billing
.   .   .   inquiry

.   .   .   .   Writes caller name, requested,
.   .   .   .   information

.   .   .   .   Pulls ledger card

.   .   .   .   Determines whether or not can
.   .   .   .   explain

.   .   .   .   Refers to supervisor (if cannot
.   .   .   explain)

.   .   .   .   Directs customer on charge, claim
.   .   .   .   procedures

.   .   .   .   Determines whether or not error
.   .   .   .   made

.   .   .   .   Writes·memo to correct error (if
.   .   .   one made)

.   .   .   .   Types notation on ledger card/new
.   .   .   .   statement (if error made)

.   .   .   .   Sends statement to patient

.   .   .   .

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