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JOB PERFORMANCE AID: JOB AND TASK ANALYSIS.(U)
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JOB PERFORMANCE AID: JOB AND TASK ANALYSIS

TRADOC PAM 351-6

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

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REPORT DOCUMENTATION PAGE

READ INSTRUCTIONS BEFORE COMPLETING FORM

1. REPORT NUMBER TRADOC-Pam-351-6	2. GOVT ACCESSION NO. AD-A091979
3. RECIPIENT'S CATALOG NUMBER	
4. TITLE ([redacted]) 6 Job Performance Aid: Job and Task Analysis.	5. TYPE OF REPORT & PERIOD COVERED 9 Final rept.
	6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Training Developments Institute Occupational Research and Analysis Division	8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Training Developments Institute ATTG-DOR Fort Monroe, VA 23651	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Training Developments Institute ATTG-DOR Fort Monroe, VA 23651	11 12. REPORT DATE 10 Oct[redacted]80
	13. NUMBER OF PAGES 54
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) 12 54	15. SECURITY CLASS. (of this report) Unclassified
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

- Job Performance Aid
- Job Analysis
- Task Analysis
- Job/Task Analysis Plan
- Task Inventory
- Task Selection Models
- Survey
- Occupational Survey

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This document is a job performance aid for conducting job and task analysis. The bulk of the information in the aid is condensed or summarized from the Job and Task Analysis Handbook (TRADOC Pam 351-4), the Job and Task Analysis course, and TRADOC Regulation No. 351-4.

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PREFACE

WHAT THIS DOCUMENT IS.

This document is a job performance aid for conducting job and task analyses. The bulk of the information in the aid is condensed or summarized from the Job and Task Analysis Handbook (TRADOC PAM 351-4), the Job and Task Analysis Course, and TRADOC Regulation No. 351-4. The aid also contains information and guidance that is not in these three references, but all information is compatible with them. Terms used here are defined in the Individual/Collective Training and Development Glossary (TRADOC Circular 350-3).

The job performance aid may be used along with the handbook, course and Regulation documents, or separately from them. It is designed to lead users through the major steps and decisions required to perform a job and task analysis.

WHO SHOULD USE IT. The job performance aid is designed for use by anyone charged with conducting a job and/or task analysis. Users should carefully read the remainder of this introduction, however, to get an idea of the scope and limitations.

ASSUMPTIONS. This job performance aid assumes the following things about its users and the conditions under which they are using it. While it will be useful, even if the assumptions are NOT met, it will be more difficult to use effectively.

a. User has read the Job and Task Analysis Handbook, and has that book available for reference if needed.

b. User has experience in job and task analysis and/or has taken the Job and Task Analysis Course.

WHAT TO EXPECT.

a. Job and task analysis is usually a lengthy and complex process, and no two analyses will be the same. This document provides a good model for performing the required steps. It is, however, only a model - not a set of hard and fast rules. Try to follow the model as closely as possible, but expect to find occasions when you need to change or omit some information. Don't arbitrarily ignore the recommendations here - but feel free to do things differently if there is good reason to do so in your situation. Significant deviations, and their reasons, should be documented.

b. The job performance aid provides guidance for analysis of "hard" skills - that is, for relatively well-defined tasks with clear beginnings and ends. The same basic process may apply to extended analysis, or analysis of "soft" skills - those that are more general and less well-defined, such as officer/manager skills. Users who are performing extended analysis may find it necessary to use greater ingenuity and may need to deviate from the model to a greater extent.

c. Users should expect the job and task analysis process of be a cyclic one, with overlapping steps. For example, Chapter 2 asks for job-related information, and Chapter 3 asks for target population information. In practice, you may need to gather the information for both steps together - and may not be able to complete gathering it until you're already well into some of the later steps. In addition, you will find that it takes several cycles of information-gathering and inteviewing to develop the task inventory required in Chapter 4.

HOW TO USE THIS DOCUMENT.

If you are experienced in job and task analysis, you may simply wish to read through the document and make your own decision about how to use it. It may best serve as a checklist/reminder of the basic steps and decisions in job and task analysis.

If you are not experienced - and particularly if you've not taken training in job and task analysis - it's recommended that you first read the document through to get an idea of its contents. Then, if possible, do the following:

a. Find someone who's done a job/task analysis and can briefly "walk you through" the document, describing some of the practical aspects of performing the steps.

b. Talk to someone who's experienced in course design and development. Course designers/developers will be using the output of your job/task analysis, and can be very useful in helping you judge whether the information you're gathering is sufficiently precise and complete.

c. Try to find an example of a completed job and task analysis that others judge satisfactory - but remember that your situation will probably be somewhat different.

This document is divided into eight chapters. Each chapter corresponds to one of the major functions in job and task analysis, and provides this information:

a. PURPOSE: A brief description of the reason for the function.

b. REFERENCES: Parts of the Job and Task Analysis Handbook, or Job and Task Analysis Course which provide more detailed information about some of the activities.

c. OUTCOME: A brief description of what you should have accomplished or produced when you complete the section.

d. WHAT TO DO: Guidelines for producing the outcome described.

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING AND DOCTRINE COMMAND
Fort Monroe, Virginia 23651

TRADOC Pamphlet
No. 351-6

10 October 1980

SCHOOLS
JOB PERFORMANCE AID: JOB AND TASK ANALYSIS

CHAPTER 1

DEVELOP/REVIEW JOB AND TASK ANALYSIS PLAN

1-1. Purpose. To prepare for job and task analysis, by developing a Job and Task Analysis Plan - or reviewing one that's already been developed.

1-2. References. Descriptions of Job and Task Analysis Plans and how to write them:

a. Job and Task Analysis Course Volume 7, Module MGT-11.

b. Job and Task Analysis Handbook Chapter 3.

Example of a Job and Task Analysis Plan: Job and Task Analysis Course, page 18 ff, Volume 8.

1-3. Outcome.

IF:	THEN:
A Job and Task Analysis Plan has already been prepared	There is no product as an outcome of this Step. When your review of the plan is completed, you should know • the purpose of the task analysis • the specialty area • what deliverables are expected • when they're expected • what resources are available/required.
No Job and Task Analysis Plan exists	The outcomes of this Step should be a completed and approved Job and Task Analysis Plan which contains at least these components: • Officer/enlisted specialty • Job description(s) • Target population • Plan rationale • Implications of the job and task analysis • Resource requirements/constraints • Data sources • Deliverables

1-4. What to do.

IF:	THEN:
You are reviewing a Job and Task Analysis Plan	Turn to page 4 and use the checklist there to review the plan.
You are developing a Job and Task Analysis Plan	Turn to page 5 and use the guidelines there to develop a plan.

1-5. Reviewing a job and task anlaysis plan.

a. The purpose for reviewing the plan is to make sure you know what's to be done, when it's to be done - and, to some extent, how it's to be done. As you read through the Job and Task Analysis Plan, use the checklist below to ask critical questions about the plan.

b. The questions are worded so that only a "NO" answer indicates a possible problem.

(1) **Officer/enlisted specialty**

- ☐ Is this stated in the plan?
- ☐ Does it indicate the grade(s) or status level(s)?

(2) **Job description**

- ☐ Is this included in the plan?
- ☐ Does it specify the particular jobs within the specialty which are to be included in the analysis?

(3) **Target population description**

- ☐ Is this included in the plan?
- ☐ Does it describe the people who will receive any training which may result from the analysis?
- ☐ Does it describe these people clearly enough so that you could identify a sample of the target population to collect information from?

(4) **Plan rationale**

- ☐ Is this stated in the plan?
- ☐ Is the reason for the task analysis clear to you?
- ☐ Does the rationale make clear what actual or potential problems led to the analysis?

(5) **Implications of the Job and Task Analysis**

- ☐ Is this included in the plan?
- ☐ Does it state what possible changes may result from the analysis in training materials, manuals, career assignments/progression, etc.?
- ☐ If possible changes in materials are identified, are those materials *specifically* listed?

(6) **Resource requirements/constraints**

- ☐ Are these described in the plan?
- ☐ Does the resource description include specific numbers of staff and mandays available?
- ☐ Are resources broken down by specific job and task analysis steps and activities?
- ☐ Are specific time and budget constraints described?
- ☐ Compare resources and constraints with known deadlines and deliverables. Will it be possible to conduct an analysis with the resources available?

(7) **Data sources**

- ☐ Are these described in the plan?
- ☐ Are specific sources stated?
- ☐ Do they seem reasonable and comprehensive?

(8) **Deliverables**

- ☐ Are these stated in the plan?
- ☐ Do the deliverables seem reasonable, in terms of the rationale for the plan?
- ☐ Does it seem feasible to produce those deliverables, given the resources described, and other information in the plan?

1-6. Developing a job and task analysis plan. Figure 1-1 describes each of the required components of a Job and Task Analysis Plan. If you've never developed one, it will be very helpful to ask for sample plans which others have identified as good ones. They can serve as illustrations of good formats to use, and of the amount and quality of detail which is desirable.

PLAN COMPONENT	DESCRIPTION AND GUIDELINES
OFFICER/ENLISTED SPECIALTY	Describe the specialty which is to be covered by the analysis, including: • grade(s) or status level(s) involved; • any restrictions on the area(s) or positions to be included.
JOB DESCRIPTION	Describe, in general terms, the jobs within the specialty. The description should be specific enough to allow readers of the plan to tell which kinds of job incumbents should be interviewed and/or observed to obtain information.
TARGET POPULATION	Describe the people who would receive any training which might result from the job and task analysis effort. Include as much of the following information as you can readily obtain: • range of grades/status levels involved • age/sex • range of educational levels • reading levels and test battery scores • time in service • experience • previous training • special qualifications • any characteristics likely to affect trainees' response to training.
PLAN RATIONALE	State the reason for performing the job and task analysis. Examples might be: • need to obtain agreement on tasks performed • need to determine the adequacy of existing training • need to verify an analysis which may be obsolete • introduction of new equipment in a specialty which results in probable new tasks • introduction of new methods or procedures.
IMPLICATIONS OF THE JOB AND TASK ANALYSIS	Describe the possible or probable effects of the job and task analysis outcomes on existing policies, procedures or materials in the Army. Be specific. For example, if the job and task analysis may result in a need to change training materials, list the specific materials which may be affected. Note that additional implications may be uncovered later.

Figure 1-1. Required components of a Job and Task Analysis Plan.

PLAN COMPONENT	DESCRIPTION AND GUIDELINES
RESOURCE REQUIREMENTS/ CONSTRAINTS	Describe anticipated *resources* required to complete the analysis: • number of staff • mandays • budget for such things as TDY • special resources such as computer time, etc. Relate resource requirements to specific activities and deliverables. NOTE: Before doing this, you should determine what deliverables will be produced during the job and task analysis, and the estimated activities that will be required to develop each deliverable. Describe any known *constraints* on the analysis. These might *include:* • critical deadlines for any deliverable • restrictions on time and personnel • budget limitations.
DATA SOURCES	Describe where you expect to get information to produce each deliverable. This might include such things as documents, people who will be interviewed, observed, or surveyed, etc.
DELIVERABLES	List the deliverable products of the completed analysis. Minimum deliverables, and the sections of this job aid which describe them, are: • Target population description (Section 3) • Job-related information (Section 2) • Task inventory/initial (Section 4) • Task inventory/final (Section 4) • Task Selection Board SOP (Section 7) • Tasks selected for training (Sections 5, 6, 7) • Task analysis worksheet for each task selected (Section 8)

Figure 1-1. Required components of a Job and Task Analysis Plan (Cont.).

CHAPTER 2

DEVELOP JOB-RELATED INFORMATION

2-1. Purpose. To obtain job information, apart from specific descriptions of tasks, that will assist in making training decisions.

2-2. References. Description of types of job-related information: Job and Task Analysis Hankbook, paragraph 4-7.

2-3. Outcome. Documentation of all job information that may be critical in making decisions about the content or implementation of training.

2-4. What to do. There are no specific steps for this task. Obtain and document any information shown in figure 2-1 which appears to meet the outcome description above. Not all analyses will require information items.

INFORMATION	WHERE TO LOOK FOR IT
Duty positions and responsibilities of job incumbents	– AR 611-201 for enlisted personnel – AR 611-101 for commissioned officers – AR 611-112 for warrant officers – Interviews with job incumbents, supervisors or subject-matter experts. – Army Occupational Survey Program (AOSP)
Career progression	– Interviews with subject-matter experts, and/or upper level job incumbents in the specialty. – AR 611-201
Present training system	– Soldier's Manual – DA 351-4 – POI from proponent school(s)
Equipment profiles	– DARCOM Report, #K600BBY1234Q; request data for specific FSN only. – TOE and TDA. – AOSP
Miscellaneous data about human factors data, component or system safety problems, etc.	– Government Industry Data Exchange Program Director, GIDEP Operations Center Corona, CA 91720 (AV 933-4672) – AOSP

Figure 2-1. Job-related information.

INFORMATION	WHERE TO LOOK FOR IT
Job environment conditions: – physical conditions – behavioral factors, such as hazards, incentives, time pressures – equipment available on job – assistance in doing job – supervision conditions – monitoring of performance – feedback provided to performers – peacetime/wartime and combat/non-combat differences – impact of equipment malfunctions – local policies, on-job training	– Observation of job conditions – Interviews with job incumbents and their supervisors – Interviews with subject-matter experts and upper level job incumbents in the specialty. – TOE and TDA – AOSP
Training environment information:* – settings, equipment, and materials likely to be needed in training – job aspects or equipment likely to require simulation – time or logistical constraints on training	– Analysis of job environment information – AOSP – Interview with training sponsors
Job characteristics:* – isolated performance or part of collective task – most critical aspect of job – most difficult part of job – most trying, frustrating part – hardest to learn – most common mistakes on job – need for equipment operation skills – greatest training need	– Interviews with job incumbents and supervisors – Interviews with those who use/receive job outputs – Surveys of job incumbents and supervisors (Field-sponsored or AOSP)
Threat assessment	See Threat Manager

*NOTE: This information is usually best collected later in the analysis, after tasks have been defined. *Final* decisions about the training environment will be made by course designers and developers, based on analysts' information and recommendations.

Figure 2-1. Job-related information (Cont.)

CHAPTER 3

DEVELOP TARGET POPULATION DESCRIPTION

3-1. Purpose. To provide information which will permit training developers to estimate the skill and knowledge needs of trainees.

3-2. References. Descriptions of the content of a target population description:

a. Job and Task Analysis Handbook
Chapter 4, paragraph 4-8.

b. Job and Task Analysis Course
Module TP-1.

3-3. Outcome. Documentation of all critical characteristics of:

a. job incumbents in the field, who are performing the tasks in the specialty, and

b. trainees who will be entering courses in the specialty.

3-4. What to do. Figure 3-1 on the next page provides a "shopping list" of information that may be useful, along with suggestions of where to find the information. Obtain and document any of the information that is relevant to your situation. Not all analyses will require all information items. Note that some of this information may have been located when the Job and Task Analysis Plan was developed.

INFORMATION	WHERE TO LOOK FOR IT	
	FOR JOB INCUMBENTS	FOR ENTERING TRAINEES
REQUIREMENTS FOR POSITION		
Grade or skill level	– AR 611-101 & 102 (officers) – AR 611-112 (warrant officers) – AR 611-201 (enlisted) – TOE, TDA, and MTOE – DA PAM 351-4	Same as for job incumbents
Required training	– Same as above – Proponent school	– Same as above – TRADOC PAM 351-10 (enlisted)
Required reading grade level	Proponent school	– Proponent school – AR 611-201 (enlisted)
Required battery test scores	– Proponent school – AR 611-201 (enlisted)	– IET POI (enlisted) – MILPERCEN (enlisted) – Proponent school
SOLDIER CHARACTERISTICS		
Civilian education level	Sample of field 201 files (enlisted) (Note: officers usually have BA or equivalent)	– Recruiting command (enlisted) – Personnel records (enlisted) (Note: officers usually have minimum 2 yrs. college)
Percent with English as a second language	– Enlisted Linguist File – Survey	– Recruiting command – Personnel records – Survey
Age range	– Sample of field 201 files – Survey	Same as above
Sex ratios	MILPERCEN	MILPERCEN
Avocational interests	Survey	Personnel records
Competition orientation	Survey	Survey
Perception of Army training	– DAIG office (officers) – Survey	Survey of cadre personnel (enlisted)
Reading grade level	Testing of job incumbents	– Adjutant General's Office – Post Education Center

Figure 3-1. Target population description information.

INFORMATION	WHERE TO LOOK FOR IT	
	FOR JOB INCUMBENTS	FOR ENTERING TRAINEES
BACKGROUND INFORMATION Time in service	– MILPERCEN – Personnel records	– MILPERCEN – Personnel records
Time in grade	Same as above	Same as above
Time in duty position	CODAP Report	N/A
Related experience	CODAP Report	Personnel records
Additional skill identifiers	– MILPERCEN – Personnel records	Personnel records
Reenlistment rate	MILPERCEN	N/A
Average turn-around time for overseas tours	MILPERCEN	N/A

Figure 3-1. Target population description information (Cont.).

CHAPTER 4

DEVELOP TASK INVENTORY

4-1. Purpose. To describe all tasks in the specialty - to ensure that later analyses and decisions about training or job aids will neither neglect critical parts of the job, nor waste time on irrelevant ones.

4-2. References. a. Description of process of developing gross task inventories through job analysis: Job and Task Analysis Handbook, pp. 4-12 through 4-15.

b. Detailed guidelines for task inventory development: Job and Task Analysis Handbook, Chapter 5.

c. Instruction in:

(1) Conducting an information-gathering interview for job analysis: Job and Task Analysis Course, Volume 4, Module V-11.

(2) Goal analysis, to develop task statements from broad general goals: Job and Task Analysis Course, Volume 4, Module JA-11.

(3) Reviewing resource documents to identify tasks: Job and Task Analysis Course, Volume 4, Module JA-12.

(4) Developing a Task Inventory Job and Task Analysis Course, Volume 4, Module JA-1.

4-3. Outcome. A list of tasks that includes ALL tasks that are now performed - or will be performed - in the specialty area, and NO tasks that are irrelevant to the job. The criteria below apply to the final task inventory; your initial task inventory will be "rough" and will probably only approximate the criteria.

a. Tasks should meet these criteria:

(1) Observable and measurable (you can see/hear them being done, or directly observe/measure the output).

(2) Specific actions (have verb/object; description can't be confused with other tasks).

(3) Definite beginning and end.

(4) Performed in short periods of time (usually less than a day).

(5) Independent actions (done for their own sakes; have a usable result).

b. Tasks should be orgainzed into related clusters, or duties.

c. Tasks should usually be sequenced so that:

(1) supervisory duties/tasks come first, and

(2) work performance duties/tasks follow.

NOTE: If you are doing extended analysis, your inventory list may be able to meet all the criteria above.

4-4. What to do. General principles to follow:

a. Start simply - try to get all tasks described in rough form before spending much time trying to refine individual task statements.

b. Expect to go through many reviews, refining and modifying the task list before coming up with a final task inventory.

c. Use all sources of information, if possible - any single source is likely to give incomplete or biased information. Consider:

(1) Experts in the subject matter of the specialty.

(2) Documents, such as training courses, manuals, etc.

(3) Job incumbents at all levels.

(4) Supervisors of job incumbents.

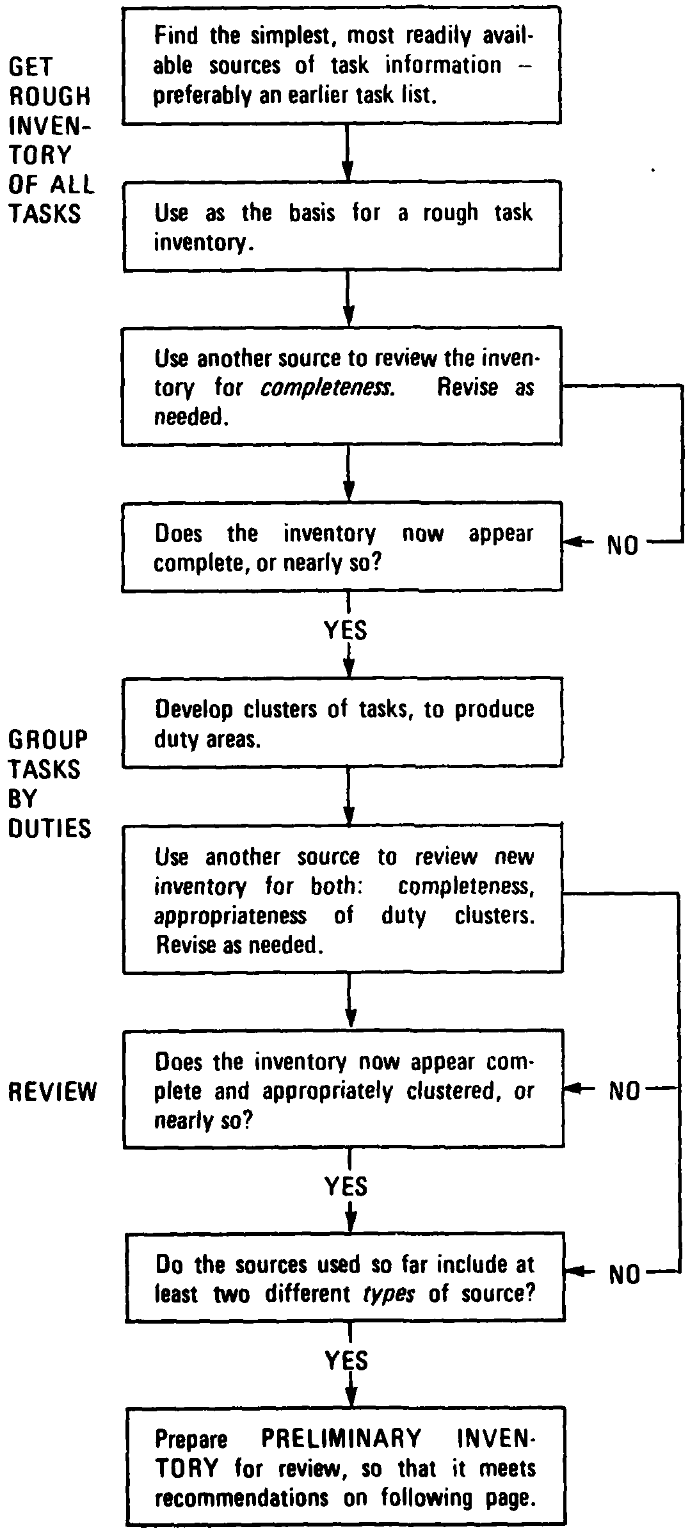
(5) Direct examination/observation of the work situation.

(6) Duty descriptions.

d. If some portion of the specialty involves classified information, check with your supervisor and follow local policy in dealing with it. Consider putting classified information in separate documentation so that the entire analysis need not be classified.

4-5. Recommended procedures. Because each job analysis situation will be different, with different resources, time, and information available, there are no specific step-by-step procedures that will apply to all situations. This section contains one recommended process for approaching the development of a task inventory.

4-6. Develop preliminary inventory, clustered by duty areas.



NOTES:

- A "source" may be either a document, such as a soldier's manual or training materials; or it may be a person, such as a trainer, job incumbent, supervisor, or even yourself, if you have knowledge of the specialty.
- The goal for the preliminary inventory is to obtain a *rough* list of tasks which seems nearly complete.
- If little information is readily available about the specialty, you may need to go ahead with a preliminary inventory which is relatively incomplete.
- MILPERCEN has task lists for most enlisted MOS and is developing lists for officer specialties and warrant MOS.

4-7. Recommendations for preparation of inventory.

a. ☐ list supervisory duties first; then work performance duties, if appropriate.

b. ☐ arrange statements alphabetically or by function under each duty.

c. ☐ begin statements with action words like these: "operate," "repair," "clean".

d. ☐ include only things that are part of the job (e.g., "training" is NOT part of jobs unless they're training jobs).

e. ☐ include only tasks – things people DO – not descriptions of what performers are, or should be, like.

f. ☐ differentiate between officer and skill-level groups, if appropriate.

g. ☐ differentiate among different job types, if appropriate.

h. ☐ make statements as brief as possible.

i. ☐ use specific words that will mean the same things to all readers.

j. ☐ use clear, simple language and short, common words.

k. ☐ use terminology that agrees with current field use.

l. ☐ use no unexplained abbreviations unless they're very common and will be understood by everyone.

4-8. Review preliminary inventory.

a. Select interviewees and method:

FOR this type of need:	THIS is usually the best choice:
Information must be obtained very quickly.	Group interviews
Group interviews are not feasible, and there is time to conduct individual interviews.	Individual interviews
There are no major constraints on time, and group interviews are feasible.	Individual interviews, followed by group interviews to review results and reconcile differences.
Differences in tasks across commands are known or suspected	Select interviewees from different commands.
Broad range of experience in the specialty, and familiarity with both supervisor and worker tasks is needed.	Interviewees at skill level 4 03/04 officers
Familiarity with career ladder, knowledge of war vs. peacetime, and combat vs. non-combat differences is needed.	Interviewees at skill level 5 Field grade officers
Specific information about tasks in a particular job or office is needed.	Interviewees at skill level 2
Information is needed about low-level tasks that may be forgotten by upper-level personnel.	Interviewees at skill level 1

b. Schedule interviews. In scheduling interviews, observe these general guidelines:

(1) Obtain permission from both supervisors and interviewees.

(2) Make arrangements well in advance.

(3) Specify purpose of interview and approximate amount of time needed.

(4) Try to arrange for an area near the workplace where interruptions will be minimal.

(5) Avoid asking for interviews at a time when people are likely to have heavy workloads, or otherwise be distracted.

c. Prepare for interviews

(1) Prepare a separate sheet, listing duties only, to be reviewed first.

(2) Prepare separate page(s) for each duty, listing all tasks under that duty.

(3) Review tasks, looking for possible problems that you may want to ask questions about. Consider making notes of these questions on your copy of the task lists. Look for:

(a) Vague task statements (you can't picture what it is that someone does).

(b) Possible misplaced tasks, that ought to be under another duty.

(c) Tasks that may be differently-worded duplicates of other tasks.

(d) Statements that may be too general, and are "hiding" several variations of a task done by one person, or slightly different tasks done in different jobs.

(e) Terminology that may be specialized, or local.

(4) Decide how you're going to record the results of the interview. You may want to prepare a special worksheet for yourself, with extra space for taking notes beside each task and for recording the type of comment and who made it. Example:

TASK STATEMENT	COMMENT	SME	TYPE	DEC.

This type of worksheet could be used as follows:

(a) TASK STATEMENT: Each task typed in this column before the interview.

(b) COMMENT: Left blank, with plenty of space for writing in comments beside each task statement during the interview.

(c) SME: Used to write in the initials of the subject-matter expert who made each comment.

(d) TYPE: Used after the interview to code the type of comment (see item F, on page 20 of this section).

(e) DEC: Used after the interview to enter your decision about whether to incorporate the comment into the task list or not.

(5) Decide what, if any, background information you want. Make a list of this information, with space for documenting responses.

d. Conduct interviews

(1) Give *introductory* information:

(a) Your name.

(b) Your organization.

(c) Purpose of interview is to collect up-to-date information about what work is being done in the field.

(d) Current task list is rough and preliminary.

(e) You'll be asking people to review statements one at a time, and suggest revisions, additions to the list, or deletions.

(2) Ask Interviewee(s) to first review *duties* only. Ask if:

(a) each one is clear and correct?

(b) any are missing?

(c) any should be omitted?

(3) Go to *non-supervisory* duties next. Take one duty area at a time. Give list to individual/group and go through tasks one by one.

(a) General questions:

- ☐ Each task statement clear and correct?
- ☐ Any tasks that should be omitted?
- ☐ Any tasks that are missing? (Ask particularly about combat tasks, or infrequent/unusual tasks.)

(b) Specific questions such as:

- – This statement seems a little vague. Can we describe it in a little more detail? (or . . . a little more specifically?)
- – Is this task really part of this duty? Or would it fit better under another one?
- – Is this really one person's task? Or are there similar, but somewhat different variations of the task done by different people?
- – How is this task different from task X? Are they really the same thing?
- – Is this a general term that everyone will understand?

(4) Go to *supervisory* duties next. Repeat procedure for non-supervisory duties.

(5) Document all suggestions for additions, deletions and changes.

(6) Obtain and document any background information you decided on.

e. Debrief supervisors. Following interviews, be sure to debrief the appropriate supervisors of the interviewees. Thank them for their cooperation and that of their subordinates, and give them a brief description of what was accomplished by the interviews.

f. Prepare interview summary and final task inventory.

(1) Prepare Interview Summary booklet, with double-page spreads set up like this:

(a) ☐ Original statements from preliminary inventory on right-hand page.

(b) ☐ Comments and suggestions on facing left-hand page. Code and organize these so that:

☐ it's clear what task in the original inventory the comments refer to.

☐ its clear which interview the comments came from.

☐ comments are coded to indicate whether they are:

N = New task statement.

R = Revision or rewording of original task statement.

D = Deletion of original task statement.

F = Format revision, or replacement of the task (e.g., "This should be listed under Duty B.").

E = Explanation given by person for one of the above (e.g., ER = "Explanation for Revision.").

C = Comment not classifiable above.

(2) Prepare final task inventory.

(a) ☐ Decide which suggested changes to accept or reject. This may require consultation with others. Document significant decisions.

(b) ☐ Code acceptance/rejection decisions this way.

✓ = accept.

\- = reject.

(c) ☐ Give to typist, to incorporate checked comments into the original preliminary inventory list.

(d) ☐ Prepare final inventory in same format as preliminary inventory.

(e) ☐ Display background/other information in any form convenient for review.

CHAPTER 5

CHOOSE TASK SELECTION MODELS

5-1. Purpose. To decide what information will be used to select tasks for training.

5-2. References.

a. Description of task selection models: Job and Task Analysis Handbook, Chapter 7 and Appendix A.

b. Instruction in use of task selection models: Job and Task Analysis Course, Volume 6.

5-3. Outcome. Decision about what data will be obtained for presentation to the Task Selection Board to guide its decision about which task require training. The decision should be based on these considerations:

a. Comprehensiveness: the data should provide enough critical information about tasks to permit the Task Selection Board to make well-informed decisions.

b. Cost-effectiveness: choices of data should take into consideration any data already available; avoid spending time and money collecting more data than is necessary.

5-4. What to do. Use the charts on the next two pages and your knowledge of already available data to select task selection models. The first chart describes the information required for each model and where to obtain it. The second chart compares the advantages and disadvantages of each model. Try to use data from at least three of the models; two is a minimum. Wartime/peacetime data must be obtained.

5-5. Data to collect for each model.

MODEL	DATA TO COLLECT	WHERE/HOW TO COLLECT IT
8-FACTOR	• Percent of people performing task. • Percent of time spent performing task. • Time between training and performing task. • Frequency of task performance. • Consequences of inadequate performance. • Probability of deficient performance. • Task delay tolerance. • Task learning difficulty.	• Army Occupational Survey Program (AOSP) • Field-sponsored survey
4-FACTOR	• Percent performing task. • Task delay tolerance. • Task learning difficulty. • Consequences of inadequate performance.	Same as above.
TRAINING EMPHASIS	• Ratings of tasks in terms of extent to which they require training.	AOSP Ask 40 supervisors of job incumbents to rate each task in terms of how much training emphasis they think should be put on each task. Use 7-point scale, ranging from "very much above average" to "very much below average."
COI AP (Comprehensive Occupational Data Analysis Program)	• Percent of time spent performing task.	AOSP
DIF (Difficulty-Importance-Frequency)	• Difficulty of task. • Importance of task. • Frequency of task.	Have sample of 40 job holders and 40 supervisors rate each task on the three factors. Can use either "yes-no" rating on each factor, or 3-point scale for some factors.
WARTIME/ PEACETIME	• Tasks which are performed in wartime only. • Tasks performed in peacetime only. • Tasks performed in both.	Review of task inventory by group of senior officers and NCOs familiar with the specialty and with combat/threat scenarios.

Note that the division into six separate models is somewhat arbitrary. You may choose to use some data from several models, in different combinations than shown here.

5-6. Comparison of task selection models.

MODEL	ADVANTAGES	DISADVANTAGES	MAJOR ATTRIBUTES	NOTES ON USE
8 Factor	Very comprehensive	Data collection – difficult Data analysis – difficult Weighting of factors – awkward, time consuming	Extensive data collection data useful in design	Should be used only when computer time and data-processing expertise are available, because of its complexity.
4 Factor	Fairly comprehensive	Data collection – difficult Data analysis – difficult Weighting of factors – awkward, time consuming	More manageable then 8-factor model	Data-processing expertise and computer time desirable. Note that you can choose to select three factors, or five factors. You are not limited to the eight- or four-factor models.
Training Emphasis Scale	•1 factor rating scale, combines several factors •High correlation with 4-factor model •Well received by the field •Ease of administration •Small sample (40)	Data not collected from incumbents	Single factor Simple rank ordering Administered to supervisors	This model should always be strongly considered to supplement information obtained from job incumbents, since it provides a check on that data from another point of view.
CODAP (time spent)	•Rank orders tasks on % time performing •Conducted by AOSP •Large sample – surveys MOS •Additional data available	Prioritizes tasks on one factor	Surveys MOS (whole Army) Simple rank ordering	This data is frequently already available. If so, it should always be used, since it requires no additional effort to obtain.
DIF	•3 straightforward factors •Ease of administration •Small sample (40) acceptable •Analysis of data – simple •Utilizes input from supervisors & incumbents •Degree of complexity adjustable	Crude instrument with gross task selection recommendation	Simple rank ordering (by category) Little time required	This model is particularly useful when time for collecting information is short.
Wartime/ Peacetime	•Isolates combat and peacetime tasks •Data easily obtained	Ignores other relevant job analysis data	Keys on combat tasks	While this data is critical, it can often be obtained by examing the information about % of time spent performing the task.

CHAPTER 6

CONDUCT A SURVEY

6-1. Purpose. To obtain information that will help determine training and/or job aid needs.

6-2. References. Job and Task Analysis Handbook, Chapter 6.

6-3. Outcome. Tabulated data of the following type(s):

a. Information needed to meet the requirements of the task selection models chosen.

b. Information needed to fill gaps, if any, in the job-related and target population information obtained thus far.

6-4. What to do.

a. Analysts may have a choice between conducting a field-sponsored survey, or having a survey conducted through the Soldiers Support Center's Survey Program (fig 6-1).

b. Before conducting any survey, always check with the Soldiers Support Center, National Capitol Region, ATTN: ATZI-NCR-MS, 200 Stovall St., Alexandria, VA 22332. In some cases, they will already have the data you need. In other cases, they may be planning a survey which can be used to obtain data for you.

SURVEY TYPE	ADVANTAGES	DISADVANTAGES	USE NOTES
Army Occupational Survey Program	• Conducted by the Soldiers Support Center: requires minimal effort on part of analyst. • Format and procedure are already established. • Obtains information from Army-wide sample.	• May take long time to complete	• Usually the best choice for large data needs. • Always check to see if survey has already been done or is scheduled. • Compare time required for AOSP to your milestones.
Field-sponsored survey (Survey conducted by analysis group)	• Can be tailored easily. • Sample size and time frame can be controlled.	• Requires much more effort and expertise on the part of task analysis group.	• May be more efficient when few questions need to be resolved. • Make sure task analysis group has access to expertise in preparing and using data collection instruments and in analyzing data • NOTE: Surveys which cross command lines require authorization. (See AR 611-3, Change 1.)

Figure 6-1. Comparison of Army Occupational Survey Program and Field-sponsored survey.

6-5. <u>Use army occupational survey program.</u>

a. Prepare input for the Soldiers Support Center (See AR 611-3):

(1) ☐ Skill levels.

(2) ☐ Paygrades.

(3) ☐ Duty positions.

(4) ☐ Additional Skill Identifiers (ASI).

(5) ☐ Task Inventory with duty and task statements.

(6) ☐ MOS equipment.

(7) ☐ MOS job requirements.

(8) ☐ Information needed about each task (for task selection).

b. Coordinate with the Soldiers Support Center during survey development and administration as requested.

c. Request and review AOSP outputs; these are the major types:

(1) ☐ Description of *sample incumbents* – numbers, duties, and paygrades of those people who responded to the questionnaire.

(2) ☐ JOBSPC output: job descriptions of special groups within the sample (e.g., male incumbents at skill level 3; individuals within a particular command; etc.). Shows either percent of group members performing each task, or average percent time spent by all members for each task.

(3) ☐ GRPSUM output: shows information similar to that of the JOBSPC output, but for the entire sample group:

(a) percent of sample performing each task/duty.

(b) average percent time spent on each task/duty by all sample members. Reports can be obtained singly or combined.

(4) ☐ GRPDIF output: shows *differences* between groups within the sample in either percent performing, or average percent time spent.

(5) ☐ VARSUM output: shows the distribution of specified characteristics of any group of individuals whose job descriptions have been generated through JOBSPC. For example, you could get a distribution of skill levels at each duty position within a specialty.

(6) ☐ FACSUM or FACPRT output: if a training-specific questionnaire (e.g., training emphasis) has been administered, this output will provide summaries of both job incumbent and training factor data.

6-6. Use field-sponsored survey.

NOTE: Someone on the analysis team should have expertise in research design and data analysis. If this is not the case, it is critical that someone with such expertise be consulted at the very beginning of the planning for the survey. The Soldiers Support Center provides Technical Advisory Services (See AR 611-3, Change 1).

Per DA requirements, surveys which do not cut across command lines must be reviewed by someone at the Commanding General level for question/item sensitivity and propriety.

a. **Select sample for the survey.**

(1) **Sample composition**: The sample group should have characteristics similar to the total group. For example, if the job incumbents vary widely in educational level, the sample should contain people from the entire range of educational levels, in approximately the same proportions as they occur in the total population.

(2) **Sample size and selection**: The sample should be randomly selected and large enough to give a reliable picture of the total population. For example, if the specialty contains thousands of job incumbents, and only a small percentage of those are sampled, the results could be seriously distorted.

b. **Decide what demographic items are needed.** Collect information only on items which you can use because:

(1) people may respond differently as a function of the item (e.g., people at different skill levels may perform different tasks).

(2) the differences can or should be addressed in some way by training.

c. **Decide what task-related items are needed.** They must be:

(1) information that is not already adequately documented and verified in your previous job and task analysis work.

(2) information that is not available through other sources.

(3) information that is directly relevant to making training and/or job aid decisions.

d. **Write items.** Use the checklist below to write or edit questionnaire items:

(1) ☐ Use closed-end items, wherever possible. (E.g., items that permit checking boxes, circling choices, answering "yes-no," etc.)

(2) ☐ Make sure demographic items contain choices that will include ALL people in the sample.

(3) ☐ DO NOT combine choices in questions. That is, don't ask people how they feel about X and Y – or whether they're members of groups A and B, unless:

(a) you have a way to separate answers, or

(b) the two choices given are essentially the same.

d. Write items...checklist (continued).

(4) ☐ Make sure all questions have a clear purpose. You should know how you'll use the answers.

(5) ☐ Check questions for validity. (Test to make sure they mean the same thing to readers that they meant to you when you wrote them.)

(6) ☐ Make questions general, so that they apply to all or most people.

(7) ☐ Use neutral questions. Don't use words that let readers know your own opinions about something.

(8) ☐ Don't deliberately shy away from subjects that might get negative answers. If information is needed about possible problem areas, ask for it. But try to use wording that is neutral.

(9) ☐ Use current concepts and terms.

(10) ☐ Use correct terminology, grammar, and spelling.

(11) ☐ Use simple language.

(12) ☐ Make questions as short as possible.

(13) ☐ Use special terms and abbreviations ONLY if you're sure all readers will understand them.

(14) ☐ Make sure questions have only *one* possible meaning.

(15) ☐ Check *answers* to questions to make sure that:

(a) ☐ all choices are clear and meaningful.

(b) ☐ choices cover all possible alternatives – i.e., no one will be in a position such that NO choices fit him/her.

(c) ☐ choices are mutually exclusive – do not overlap.

(d) ☐ no questions have more answers than will fit on the answer sheet to be used with the questionnaire.

e. Test Items. Always have your questions reviewed by someone else. Ideally, they'll be reviewed by someone with experience in questionnaire design; someone with editing expertise; someone with data analysis experience; and few people of the type you'll be sending the questionnaire to. Any reading by another person, however, can be helpful in picking up things you've missed. Use the checklist from the previous page to tell reviewers which things you'd like them to look for.

f. Sequence items. Once items have been reviewed, arrange them in the order you want them on the questionnaire, using the following guidelines:

(1) ☐ All demographic items together.

(2) ☐ Try to begin with more interesting, easy-to-answer items.

(3) ☐ Separate items that look similar — and/or underline words that will make it clear how they're different.

(4) ☐ Separate items that may influence each other.

(5) ☐ Try to avoid items that require people to skip around in the questionnaire. If some items are to be answered only by people in a certain category, give clear instructions and try to group those items together.

g. Review length and complexity. Long and complicated questionnaires often get answered thoughtlessly, or not at all. Check your questionnaire to see if it can be answered within an hour. If not, consider these possibilities:

(1) ☐ Make sure all items obtain needed information that can't be more easily gotten some other way.

(2) ☐ Check to see if items can be revised to make them less complicated and time-consuming to answer.

(3) ☐ Consider dividing the questionnaire into two or more segments, so that any one person will only have to answer some of the questions. Note that you may need a larger sample if you do this.

CHAPTER 7

SELECT TASKS FOR TRAINING

7-1. Purpose. To determine which tasks in the task inventory require formal training.

7-2. References.

a. Outline of SOP requirements: TRADOC Regulation 351-4.

b. Description of Task Selection Board: Job and Task Analysis Handbook, Chapter 7, paragraph 7-10.

c. Instruction in use of task selection models: Job and Task Analysis Course, Volume 6.

7-3. Outcomes.

a. Standard Operating Procedure (SOP) for a Task Selection Board.

b. A list of tasks selected for training by a Task Selection Board, following the SOP and using data from the task selection models chosen in Section 6. Tasks should be listed by skill level.

7-4. What to do. The following pages provide guidelines for the major steps in selecting tasks for training.

a. Prepare SOP.

b. Prepare data for Task Selection Board.

c. Check arrangements.

d. Conduct Board proceedings.

e. Prepare list of tasks selected for training.

7-5. Prepare SOP for task selection board.

COMPONENT	DESCRIPTION AND GUIDELINES
BACKGROUND AND PURPOSE	• This should include a brief general description of the specialty and rationale for the job and task analysis.
ADMINISTRATIVE DETAILS	• Include time, location, expected duration of meeting, provisions for documenting procedures, and agenda.
CURRENT DOCTRINE THREAT, AND MISSION GUIDANCE	• Consult with threat manager in developing. • The SOP should specify how this will be provided. If feasible, there should be a threat briefing provided to the Board but *not* documented as part of the proceedings. This avoids the potential problem of having to classify the entire proceedings, including the list of tasks selected for training.
COMPOSITION OF THE BOARD	• Five to eight members are recommended. • President should not be in command/supervisory relationship to any other Board member. • Members must be familiar with specialty. • Members should, if possible, represent all affected directorates.
CONFLICT RESOLUTION/ ARBITRATION PROCEDURES	Describe the procedure and/or person(s) to be used in resolving disagreements. • Preferred procedure will require resolution *during* the meeting. • Include a means for appeal and/or documenting dissent.
TRAINING PRIORITY GUIDANCE	Describe the models/data to be used in selecting tasks for training, how they'll be used, and the rationale for their selection.
SPECIAL REQUIREMENTS	This should include additional requirements of the service school, if any, to ensure understanding of the process used.

7-6. Prepare data for task selection board. The method you use to display data to the Task Selection Board should have these characteristics:

a. All information to be used together should be displayed together. For example, the name of a task and all relevant task selection data should usually be on one page - board members should not have to flip back and forth through various pages or documents to get information to make a decision.

b. The data display method should simplify documentation of changes and decisions. For example, it may be possible to use specially prepared computer printouts or worksheets that allow documentation of most changes and/or decisions directly on the sheets used to display data to the board.

7-7. Send out task inventory. Try to get the task inventory to Board members a week or two in advance of the meeting.

7-8. Check arrangements. In advance of the meeting, double-check all arrangements, including the following:

a. ☐ Review data display. Make sure everything will be ready in time and will be convenient to use.

b. ☐ Check location. Make sure it is free of interruptions and has sufficient comfortable seating and work space.

c. ☐ Check participants. Make sure everyone scheduled to come will in fact be there. Arrange for replacement if someone can't make it.

d. ☐ Review SOP. Make sure it's still appropriate and workable. If not, document necessary modifications.

7-9. Conduct board proceedings. This should be a matter of following the SOP. The critical point is that Board members' attention is focused on the task selection data and that those data are used in decision making.

7-10. Prepare list of tasks selected for training. This should be a direct outcome of the Task Selection Board meeting. The list of tasks selected should be sent for sign-off/approval (along with other relevant proceedings) as soon as possible after the Board adjourns.

CHAPTER 8

PERFORM TASK ANALYSIS OF TASKS SELECTED FOR TRAINING

8-1. Purpose. To obtain enough information about each task selected for training so that training designers and developers can produce appropriate lesson, exercise and test materials. Note that you are no longer "validating" tasks; that has been done. You are now doing a detailed training analysis.

8-2. References.

a. Descripton of task analysis process: Job and Task Analysis Handbook, Chapter 8.

b. Instruction in critical task analysis skills:

If you want to learn about:	Then see this section of the Job and Task Analysis Course:
Conducting observations and interviews	Volume 5, Module V-12: Conduct Observation-Interview
Developing diagrams or flowcharts to show relationships among performance steps and elements (Block 16 of Task Analysis Worksheet – TRADOC Form 550)	Volume 3, Module DF-1: Developing Flowcharts Volume 5, Module OP-1: Developing Stimulus-Response Tables
Describing cues for performance steps and elements (Block 17 of the Task Analysis Worksheet – TRADOC Form 550)	Volume 5, Module IC-1: Identifying Initiating Cues
Describing conditions and standards for performance steps and elements (Blocks 18 and 19 of Task Analysis Worksheet – TRADOC Form 550)	Volume 3, Module ECSS-1: Edit Condition and Standard Statements

8-3. Outcome. A completed description of each task selected for training which meets these criteria:

a. Addresses all items listed on TRADOC Form 550, Job and Task Analysis Worksheet, which can be found in the Job and Task Analysis Handbook. Instructions and an example appear on pages 8-7 through 8-17 of this performance aid.

b. Contains information in enough detail and with enough clarity, to allow designers/developers to produce training and/or job aids with a minimum of additional information gathering.

8-4. What to do. There are no specific step-by-step procedures that will cover all task analysis situations. Use the resouces listed in paragraph 8-2 in conjuction with the guidelines which follow to complete the task analysis. The guidelines in this section are of two types:

a. Guidance in selecting methods for gathering task analysis information.

b. Gudiance in completing a task analysis worksheet.

8-5. Selecting task analysis methods.

a. The heart of a task analysis is a detailed, step-by-step description of exactly how someone performs a task, including:

(1) Exactly what someone says, does, or decides in doing the task (performance steps and elements).

(2) What starts someone performing each step (cues).

(3) What tools, equipment, environmental setting, instructions, resources and references, etc. are in the situation when each step is performed (conditions).

(4) How well the step or element must be performed to be satisfactory (standards).

b. Figure 8-1 shows the basic methods for obtaining this information, along with their advantages and disadvantages.

METHOD	ADVANTAGES	DISADVANTAGES	WHEN BEST USED
EXAMINE EXISTING DOCUMENTS	• Simplest of all methods • Does not require the time of others • May save much analysis time	• Quantity and quality of information depends on the availability of good documentation • Analyst can't always tell how accurate and complete the documentation is	• Always use when available, but supplement with other methods

Figure 8-1. Methods for obtaining task analysis data.

METHOD	ADVANTAGES	DISADVANTAGES	WHEN BEST USED
LEARN TO PERFORM THE TASK	• Provides greatest familiarity with task • Gives best access to "invisible" task components, such as decision-making and reasoning processes	• Can be very time-consuming with some tasks • May be impractical or dangerous with some tasks	• Routine tasks • Simple trouble-shooting or equipment operation • Tasks that can be learned quickly
OBSERVE OTHERS PERFORMING THE TASK	• Permits direct observation of actual behavior • Usually more reliable than reports of behavior • Allows direct observation of performance conditions • Allows analyst to probe performer about decision-making processes immediately • Allows analyst to see alternate ways of performing the task	• Analyst may concentrate too heavily on the visible task components • Analyst will miss task components which do not occur often • May be difficult to schedule	• Any task which has many visible behaviors, as opposed to "thinking" behaviors
INTERVIEW PERFORMERS ON THE JOB	• Can be done almost any time • Allows maximum probing for "thinking" behaviors • Allows analyst to ask about infrequent or unusual task components	• May be less reliable than direct observation of performance • Interviewee may neglect task information that an analyst would notice during observation	• Any task which has many invisible behaviors, such as trouble-shooting • To supplement analyst observations on the job

Figure 8-1. Methods for obtaining task analysis data (Cont.).

METHOD	ADVANTAGES	DISADVANTAGES	WHEN BEST USED
INTERVIEW SUPERVISORS OF JOB INCUMBENTS	• May have the best perspective on good and bad ways to do the work, from observation of many performers • Can help guide analyst by pointing out good and bad performers	• Supervisor may have preconceived ideas about task • May not actually know task as well as performers • May be a "super" performer, with unrealistic expectations	• To guide analysts' observations/interviews of job incumbents • To supplement or review information obtained elsewhere
CONSULT WITH SUBJECT-MATTER EXPERTS	• May have the broadest, most detailed information of all sources • Can often reconcile differences, or fill in the blanks left from other methods	• May insert task information that is "nice-to-know" background, or theory – but not necessary or practical on the job	• To review or supplement information obtained from other methods

Figure 8-1. Methods for obtaining task analysis data (Cont.).

c. The preferred task analysis approach is to use all methods, when possible and practicle, in the order:

(1) Examine existing documents.

(2) Consult with subject-matter experts to determine reliability of existing documentation.

(3) Learn to do the task.

(4) Observe and interview performers on the job.

(5) Interview supervisors.

(6) Consult with subject-matter experts for review.

(7) Test the final performance descripton by seeing if a real performer can use it to do the task.

d. When this sequence isn't feasible, use the chart to select the best methods mix, depending on the type of task, the information you need about it, and the realistic constraints of your situation.

8-6. Complete Job and Task Analysis Worksheet (TRADOC Form 550).

a. On the following pages is a description of how to make entries to the Job and Task Analysis Worksheet from Chapter 8 of the Job and Task Analysis Handbook. Before going to that description, however, review the general guidelines below.

(1) It is NOT necessary to use the worksheet from the Handbook, though it may save time. As long as you consider all the information on that worksheet, feel free to use another form that you find more useful or convenient. However, TRADOC Form 550 provides a format that can standardize information transfer.

(2) Some information on the worksheet will not apply to all tasks, or to all steps in a task. In these cases, be sure to enter "NA" for not applicable, or some other indication that you've considered the information. Otherwise, a training designer can't tell whether the information is not needed, or whether you just forgot to fill in the blank.

(3) You will need continuation sheets for some of the blocks on the worksheet - particularly blocks 16-20.

(4) The division between the work done by analysts and that done be designers varies from one school to another. In some schools, therefore, parts of the worksheet may be filled out by training designers, not analysts.

(5) Much of the information for the early blocks on the worksheet applies to all tasks. In this case, you can save time and paper by just filling out one "master" sheet with this information for all tasks.

b. Figure 8-2 gives a brief summary of the contents of the worksheet.

SECTION	GENERAL DESCRIPTION
1. TASK DATA 2. TASK USAGE 3. TYPE ANALYSIS 4. ADMIN DATA 5. SURVEY DATA/ FIELD FEEDBACK 6. REFERENCES	These sections contain mostly background or administrative information that applies to all tasks. You will already have much of this information from earlier work in job analysis, or from preparing job-related and target population information.
7. JOB AID RECOMMENDED	This recommendation is made separately for each task. Assistance in deciding whether or not a job aid is appropriate may be found in Appendix I of the *Job and Task Analysis Handbook.*

Figure 8-2. Summary of the contents of the Job and Task Analysis Worksheet (TRADOC Form 550).

SECTION	GENERAL DESCRIPTION
8. HAZARD POTENTIAL	This section is critical for each task. It asks you to specify any hazards that trainees might encounter, both in training and later on the job.
9. SAFETY CERTIFICATION REQUIREMENTS	List any certification required for the job.
10. TRAINING MATERIALS	List any training materials that may need revision as a result of the analysis.
11. INSTRUCTIONAL SITE RECOMMENDATION	Record Instructional site recommendations.
12. EQUIPMENT USED WITH/TO PERFORM THE TASK	List any equipment soldiers use while performing the task.
13. ENABLING SKILLS AND KNOWLEDGES	This section requires describing the skills and knowledges (A) needed to *learn* to perform the task and (B) needed to actually *perform* the task on the job.
14. TASK SELECTION DATA	A summary of the information used to select tasks for training.
15. MISCELLANEOUS DATA/COMMENTS	
16. PERFORMANCE ELEMENTS/STEPS 17. CUES 18. CONDITIONS 19. STANDARDS	These blocks are used for the step-by-step description of how to perform the task. In making entries here, you'll need to use a numbering or spacing system that makes it clear which performance element each cue, condition, or standard is associated with.
20. SKILLS/ KNOWLEDGES	This section asks for the skills and knowledges needed to *perform* each *step*. It's the same as the information for 13 (B) except that here skills/knowledges are related to individual steps instead of being listed for the task as a whole.
21. JPM DATA	This section is used for tasks which can't reasonably be tested by having the trainee perform the actual on-job task. In this case, you should recommend an alternative way to test – a Job Performance Measure (JPM).

Figure 8-2. Summary of the contents of the Job and Task Analysis Worksheet (TRADOC Form 550) (Cont.).

8-7. Job and Task Analysis Worksheet: TRADOC Form 550. The following pages provide instructions and examples for completing TRADOC Form 550 (figures 8-3 through 8-7), a recommended Job and Task Analysis Worksheet. The actual worksheet is about four times the size of a standard 8 x 10½" page. It has been divided into smaller segments here, for convenience. Each even-numbered page provides instructions for some of the worksheet blocks; each odd-numbered facing page shows a replica of the worksheet with the corresponding blocks filled in, as an example. Note that some of the examples are only partially complete. For most tasks, continuation sheets will be needed - particularly for Blocks 13 and 16-20.

a. WORKSHEET INSTRUCTIONS: BLOCKS 1, 7, 8, 9, 11.

Block 1. TASK DATA.

A. **Title:** Name of the task. Use terms similar to those in task inventory.

B. **Number:** Task number, based on TRADOC Cir 351-28 and local school policy.

C. **Condition:** Describe the conditions under which the task is done on the job. May include such items as tools, equipment, facilities, environment, operational dictates, etc.

D. **Standard:** Describe how well the soldier must perform the task on the job. May include such things as procedures which must be followed, time limits, errors permitted, production rate, tolerances, etc.

E. **Job Title:** Name of the duty position in which the task is performed.

F. **Supervisor Job?:** Indicate whether the task is part of a supervisory function.

G. **Supervision required to perform this task?:** Indicate whether the soldier requires *direct* supervision to perform the task.

H. **ARTEP Derivative?:** Indicate whether the task was derived from an ARTEP collective task.

I. **SQT Candidate?:** Indicate whether the task is to be used, or should be considered, in an SQT.

J. **MQS Candidate?:** Indicate whether the task is to be used, or should be considered in the Military Qualification Standard (MQS). See Review of Education and Training for Officers (RETO), 30 Jun 78, and TRADOC Cir 350-2 for more information.

K. **Common task?:** Indicate whether the task is common to several MOS or specialties. See TRADOC Cir 351-1 for more information. Include the proponent school.

L. **Shared task?:** (For officer tasks only.) Refer to RETO and TRADOC Cir 350-2 for information about shared tasks.

Block 7. JOB AID RECOMMENDED.

Indicate whether or not a job aid is recommended for the task. Include suggestions about type of job aid, as appropriate. See Job and Task Analysis Handbook, Appendix I, for information about job aids.

Block 8. HAZARD POTENTIAL.

This information is critical. If there are hazards involved in learning or performing the task, describe them specifically.

A. **Training:** Possible hazards to personnel or equipment in performing the task under training conditions.

B. **Job Performance:** Possible hazards in performing under actual on-job conditions.

Block 9. SAFETY CERTIFICATION REQUIREMENTS.

Describe any certifications that soldiers performing the task must have. Include the agency issuing the certification.

Block 11. INSTRUCTIONAL SITE RECOMMENDATION.

A. **Analyst's Recommendation:** Your recommendation, based on local school policy.

B. **Site Selection Board:** Site selection board's recommendation.

C. **Final Recommendation:** Final site selection decision by training designers.

Task Number:

Task Title:

1. Task Data:

   A. Title: *Install telephone set TA - 341/TT or TA - 341A/TT*

   B. Number: *113 - 600 - 1003*

   C. Condition: *All weather conditions, indoors and outdoors. Using 2 each TA - 341/TT or TA - 341A/TT; 4 each BA - 42; 2 each 1K resistors, TK - 101/G; TM 11 - 5805 - 384 - 12*

   D. Standard: *Telephone set installed in accordance with the procedure described in Block 16, Performance Elements*

   E. Job Title: *Tactical wire operations specialist*

   F. Supervisory Job? (Yes) (No) ✓

   G. Supervision Required to Perform this Task? (Yes) ✓ (No)
   Comments *NCOIC must inspect operation of telephone set*

   H. ARTEP Derivative? (Yes) ✓ (No)
   Comments *Derived from ARTEP 7-45*

   I. SQT Candidate? (Yes) ✓ (No)
   Comments *Program for 1980 SQT revision*

   J. MQS Candidate? (Yes) (No) ✓
   Comments

   K. Common Task? (Yes) (No) ✓ Proponent *Signal School*

   L. Shared Task? (Yes) (No) ✓ Proponent

7. Job Aid Recommended? (Yes) ✓ (No)
   Comments *Consider using checklist on plastic card*

8. Hazard Potential:

   A. Training: *Low - minimal shock hazard because of low voltage*

   B. Job Performance: *Low - minimal shock hazard - low voltage*

9. Safety Certification Requirements:
   Must hold FCC first class certificate - current

11. Instructional Site Recommendation:

   A. Analyst's Recommendation: ☑ Job ☐ Institution ☐ Unknown

   B. Site Selection Board: ☑ Job ☐ Institution ☐ Unknown

   C. Final Recommendation: ☑ Job ☐ Institution (Form *Job aid*)

Figure 8-3. Example of TRADOC Form 550, blocks 1, 7, 8, 9, and 11.

b. INSTRUCTIONS: BLOCKS 2, 3, 4, 5, 6, and 10.

Block 2. TASK USAGE.

Indicate whether the task is performed in Active Component, in Reserve Component, and/or during mobilization. Add comments/justifications as appropriate.

Block 3. TYPE ANALYSIS.

Indicate whether this is a new analysis or a revision of an existing one. If a revision, indicate the reason for the revision.

Block 4. ADMIN DATA.

A. Date initiated: Date the analysis project was started.

B. Completion date: Date of completing the analysis project.

C. Analyst's name, etc.: Enter data for the person with primary responsibility for the analysis. If project managers have changed, list all.

Block 5. SURVEY DATA/FIELD FEEDBACK.

A. AOSP: Enter date when task inventory was submitted to Soldiers Support Center, National Capitol Region and date AOSP report was received. Include any relevent comments on co-ordination with Soldiers Support Center.

B. Field/In-House: Describe coordination with Deputy Chief, Staff Training (DCST).

C. Miscellaneous: Enter description of any feedback received and source, or other relevant comments.

Block 6. REFERENCES.

A. Used in analysis: All documents used during the analysis.

B. Required to accomplish task: All documents needed by the performer to complete the task.

Block 10. CURRENT TRAINING MATERIALS.

List all training material identified during the analysis. Indicate those which should be changed, based on the analysis.

2. Task Usage:

[✓] A. Active Component

[✓] B. Reserve Component
[ ] NG
[✓] Reserve

Comments *Reserves to get TEC Lesson*

[ ] C. Mobilization

Comments *not required*

3. Type Analysis: [ ] New [✓] Revision

If Revision, Why? *1st generation analysis inaccurate*

4. Admin Data:

A. Date Initiated *1 February 79*

B. Completion Date *21 May 79*

C. Analyst's Name *O'Day*
Rank *E6* Specialty
Office File Symbol *ATTWG - DTO - AN*
Telephone Number *AV xxx - xxxx*

D. Interschool Coordinate Comments

5. Survey Data/Field Feedback:

A. AOSP. Date Inventory Submitted to MODD 1 November 78
MODD Coordination Comments Report due back from Soldiers Support Center on or about 1 October.
Date Report Received

B. Field/In-House. Coordination Comments Sent to field on 1 March 79. Had received 60% return on July 1 79.

C. Miscellaneous Feedback and Sources. Comments Data from field survey has been tabulated and analyzed. Data used in critical tsk selection process.

6. References:

A. Used in Analysis *TRADOC Reg. 351 - 4, TRADOC PAM 351 - 4 and 350 - 30, TM 11 - 5805 - 384-12*

B. Required to Accomplish Task *TM 11 - 5805 - 384 - 12, Chapter 12, Section III, paragraph 2 - 15, pg. 2-3*

10. Current Training Materials Identified and Those Affected by Job/Task Revision (to include title, media, type devices or aids, etc.).

TEC Lesson, "Wire Operations"

TEC Lesson on installation of TA - 341/TT or TA - 341A/TT

Figure 8-4. Example of TRADOC Form 550, blocks 2, 3, 4, 5, 6, and 10.

c. INSTRUCTIONS: BLOCKS 12, 14, 15.

Block 12. EQUIPMENT USED WITH/TO PERFORM TASK:

List all equipment and/or hardware needed to perform the task on the job.

Block 14. TASK SELECTION DATA.

Write in the data collected for each factor in the task selection model(s) which were used to select tasks for training. If a scale was used for any factor, enter the range of that scale.

Block 15. MISCELLANEOUS DATA/COMMENTS.

Use as needed for relevant information which is not covered by other blocks.

12. Equipment Used with/to Perform Task:

2 each TA - 341/TT or TA - 341A/TT
4 each BA - 42
2 each Resistors (1K), RCRØ7G1ØZJM
1 each TK - 1Ø1/G

14. Task Selection Data (Fill in only those used):

Items 5 - 8 used Likert scale with range of 1 - 7.

A. 8/4 Factor Data:

(1) Percent Performing *13%*

(2) Time between Training and Task Performance *3 - 6 months*

(3) Frequency of Performance *daily*

(4) Time Spent Performing Task *5%*

(5) Consequences of Inadequate Performance *serious (5)*

(6) Probability of Inadequate Performance *low (7)*

(7) Task Delay Tolerance *low (7)*

(8) Task Difficulty *very easy (1)*

B. Training Emphasis Data:

C. DIF Data:

D. Peacetime/Wartime Data:

E. Other:

15. Miscellaneous Data/Comments:

Figure 8-5. Example of TRADOC Form 550, blocks 12, 14, 15.

d. INSTRUCTIONS: BLOCK 13.

Block 13. ENABLING SKILLS AND KNOWLEDGES REQUIRED.

A. **Baseline Entry Level:** List the skills and knowledges a person must have to *learn* to perform the task – that is, what someone needs to know or be able to do *before* entering training in order to benefit from it.

B. **Skill Hierarchy:** Describe the additional skills and knowledges a person must have to *perform* the task on the job – that is, what skills and knowledges someone must obtain through training, job aids or on-job experience. If appropriate, arrange these skills in a hierarchy, using a diagram to show sub-skills/knowledge.

Figure 8-4. EXAMPLE: BLOCK 13.

13. Enabling Skills and Knowledges Required (Functional or Specific) for Task (Attach additional sheet, if required).

A. Baseline Entry Level:

- *Basic arithmetic skills*
- *Ability to use common hand tools*

B. Skill Hierarchy:

REPLACE BATTERY

- *Can recognize defective battery*
  - *knowledge of acceptable meter reading*
  - *ability to use meter*
    - *knowledge of polarity*
    - *ability to read meter*
- *Can install battery*
  - *knowledge of polarity*
  - *knowledge of shock hazards*

Figure 8-6. Example of TRADOC Form 550, block 13.

e. INSTRUCTIONS: BLOCKS 16, 17, 18, 19, 20, 21.

Block 16. PERFORMANCE ELEMENTS/STEPS.

Record all steps/elements necessary to perform the task. List in a logical sequence, based on actual job performance. Attach diagrams or flowcharts if needed to show additional detail, or if steps are not actually performed in a simple sequence.

Block 17. CUES.

Beside each step, enter the cues that cause someone to start performing that step. Include cues that may cause someone to continue or stop performing. If the only cue is completion of the preceding step, enter "NA."

Block 18. CONDITIONS.

Beside each step, enter specific conditions necessary to perform the step (e.g., tools, test equipment, forms, references, etc.). If conditions are the same as those for the preceding step, simply enter "ditto" marks or "NA."

Block 19. STANDARDS.

Beside each step, enter standards for satisfactory completion of the step. If there are no relevant standards, enter "NA."

Block 20. SKILLS/KNOWLEDGES.

Beside each step, enter the skills or knowledges a person must have to perform the step. If they're the same as for preceding step, enter "ditto" marks or "NA."

Block 21. JPM (Job Performance Measure) DATA.

Recommend a method for testing accomplishment of the task at the end of training. This is necessary only if it's not reasonable to test trainees using the conditions, performance, and standards as written for the actual job. The test measure or method you suggest should be as close as practical to the on-job task and/or should test the most critical skills/knowledges in a form similar to the way they're used on the job.

16. PERFORMANCE ELEMENTS/STEPS	17. CUES	18. CONDITIONS	19. STANDARDS	20. SKILLS/KNOWLEDGES
1. Install batteries.	Battery compartment empty, batteries discharged or damaged.	4 each BA-42	Installed according to diagram on faceplate.	Ability to read meters. Knowledge of polarity. Ability to use hand tools.
2. Perform pre-installation check.	Batteries OK	2 each TA-341/TT or TA-341A/TT 2 each 1K resistors	Hear normal side tone in receiver.	No special S/K other than knowledge of how to operate TA-341/TT or TA-341A/TT.
21. JPM Data Task can be tested under on-job conditions and standards.				

Figure 8-7. Example of TRADOC Form 550, blocks 16, 17, 18, 19, 20, and 21.

The proponent of this pamphlet is the Training Developments Institute. Users are invited to send comments and suggested improvements on DA 2028 (Recommended Changes to Publications) through channels to that office, ATTN: ATTG-DOR.

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