

Job Analysis for

INSERT JOB TITLE HERE

State Organization:

State Agency:

Office:

Division:

Job Title:

Purpose:

Proposed Job Analysis Methods: (1) Combination Job Analysis Method (C-JAM)

- Observation/Shadow
- Interviews
- Task Inventory
- Statistical Analyses

Deliverables:

- Report to leadership

Job Analysis: Detailed Outline

- I. REVIEW PREVIOUS/CURRENT POSITION DESCRIPTION/SPECIFICATION**
 - Collect and review all files of incumbents in the position of interest
 - Compare/contrast any similarities/differences among position descriptions
 - Request revised position description
- II. SUBJECT MATTER EXPERTS (SMEs)**
 - 7 SMEs
- III. OBTAIN SME DEMOGRAPHIC INFORMATION**
 - Collect the following information from SMEs:
 - A. Race
 - B. Sex
 - C. Job-related education
 - D. Tenure
 - E. Age
 - All demographic information is to be confidential
 - This information helps to defend our job analysis should the Equal Employment Opportunity Compliance (EEOC) agencies require this information
- IV. OBSERVATION**
 - Shadow the job incumbent
 - Take detailed notes regarding job tasks and KSAOs
- V. Develop Task Inventory**
 - Generate a preliminary task/KSAO inventory using position descriptions and observation notes
- VI. TASK GENERATION MEETING/INTERVIEW**
 - State the purpose of the SMEs participation in the job analysis procedure
 - State the purpose of the task generation meeting/interview
 - Provide the definition of a “task”
 - Instruct SMEs on how to write a “task statement”
 - Provide examples of task statements
 - SMEs review task inventory for jargon and accuracy
 - Add/remove tasks as necessary
 - “We would like you to think about your most recent full work day (perhaps it was yesterday) and write all of the tasks you performed from the beginning of your shift to the end of your shift.”
 - “What are some other tasks your position performs that you have not yet listed?”
 - “What are some tasks that are not performed daily? For example, are there any tasks which are performed during only certain days of the (1) week, (2) month, (3) year?”
 - Job Analysts groups each tasks into 5-12 major duties/functions
 - SMEs are asked to review drafted list of tasks
 1. Do any of the tasks need to be combined?
 2. Do any of the tasks need to be broken into separate task statements?
 3. Do any tasks need to be added/deleted to/from the list?
 - Review major duty/function category labels
 1. Are the major duty/function categories satisfactory?
 2. Should any of the categories be re-titled/titled differently?
- VII. ANALYSTS REVIEW TASKS**
 - Analysts review tasks (added/deleted/edits) and develop finalized task list
 - Check for clarity

VIII. THE TASK RATING SESSION

- State the purpose of the task rating session
- Analysts deliver rating training
- Ratings of task importance
 - Describe and define the scales to SMEs
 - SMEs will rate each task within each duty/function on its level of importance
 - SMEs will be told that ratings should be based on the job in general
 - Task importance value = Task Difficulty + Task Criticality
 - Three rating dimensions will be rated:
 - a) *Task difficulty*: Difficulty in doing a task correctly relative to all other tasks within the job (1 = easiest task to 7 = most difficult task)
 - b) *Criticality/consequences of error*: The degree to which an incorrect performance of the task would result in negative consequences (1 = consequences not important to 7 = extremely important)

IX. ANALYSIS OF TASK IMPORTANCE/STATISTICAL ANALYSES

- Task importance = Difficulty + Criticality (range minimum 2- maximum 14)
- Job analysts order tasks within each major duty/function from most to least important along with the task importance values attached to each task
- Add finalized task-major duty/function list (with task importance values) to report
- Compute average, standard deviation, and rwg

X. KNOWLEDGE, SKILLS, ABILITIES, OTHER (KSAO) GENERATION MEETING

- Knowledge – *technical mastery of material needed to perform the job*
- Skill – *capacity to perform tasks using equipment / tools, etc.*
- Ability – *capacity for physical or mental act required to perform the job*
- Other – *interests, values, temperaments, personality (focused on the “will do”)*

Session One:

- State the purpose of the KSAO generation meeting/interview
- Review list of tasks one last time
 - Distribute finalized task-major duty/function list with task importance values to SMEs
 - SMEs should review the list in detail
 - Ask SMEs if the list is complete and accurate
 - Ask if the duty/functional categories are meaningful
 - Ask if the importance values of the tasks are different from expected
 - Job analysts make changes as needed
- Provide the definition of a “KSAO”
 - Provide examples of KSAOs
- Initiate KSAO brainstorm
 - What are the basic KSAOs required to perform the job effectively?
 - Sensory and motor requirements should be scrutinized carefully to not exclude people unnecessarily (e.g., color blindness)
 - Brainstorm job requirements:
 - Knowledge
 - Skills
 - Abilities:
 - a) Cognitive
 - b) Psychomotor
 - c) Physical
 - d) Sensory
 - Other
 - a) Personality factors
 - b) Temperaments
- Distribute list of basic/common KSAOs to help generate KSAOs required for your position
 - Focus on each major duty/function at a time to generate KSAOs
 - What KSAOs are needed to perform each task within each category?

- a) If the number of finalized tasks are too large, we will focus on the KSAOs to perform each major duty/function
- b) Goal is to determine at least 30 – 100 KSAOs
- Job analysts generate full draft list of KSAOs

Session Two:

- State the purpose of the KSAO rating meeting/interview
- Share drafted list of KSAOs to SMEs
 - SMEs review the wording of each KSAO
- Discuss any revisions for the KSAO draft list
- Describe and define the scales to SMEs
 - SMEs will rate each KSAO on the following:
 - Is the KSAO *necessary for newly hired employees* (yes/no)?
 - Is the KSAO *practical to expect in the labor market* (yes/no)?
 - *Extent of trouble likely if the KSAO is ignored in selection* (compared with the other KSAOs; 1 = very little or none to 5 = great extent)
 - *Extent to which different levels of the KSAO distinguish the superior from the average worker* (compared with the other KSAOs; 1 = very little or none to 5 = to an extremely great extent)
 - Provide an example of rating a KSAO derived from the KSAO draft list
 - SMEs rate each KSAO on the four dimensions individually
 - SMEs should rate on one dimension/scale at a time
- Job Analysts aggregate the ratings

XI. ANALYSIS OF KSAOs

- Job analysts refine and develop final KSAO list
- Tally number of “yes” and “no” responses
- Compute averages, standard deviation, and rwg for scale ratings
- Share final report of KSAO list (with rating values attached) to SMEs for a final review
 - Verify with SMEs that KSAO list is accurate and complete
 - Confirm that KSAO ratings make sense/were expected

XII. USING THE RESULTS

- KSAOs used for selection tool must meet 3 criteria:
 1. Clear majority of SMEs voted that the KSAO is *necessary for new hires*
 2. Clear majority of SMEs voted that the KSAO is *practical to expect in the labor market*
 3. Average rating on “*trouble likely if the KSAO is ignored in selection*” must be greater than 1.5
 - If there is a close tie on one or both of the “yes”/“no” dimensions, then job analysts will refer to the “*distinguish the superior from the average worker*” ratings for those KSAOs
 - a) If average rating on this scale is 1.5 or higher, then the KSAO can be used to rank the most/least qualified applicants
 - b) If the average rating on this scale is below 1.5, then the KSAO can be used as a pass/fail measure in the selection/screening tool

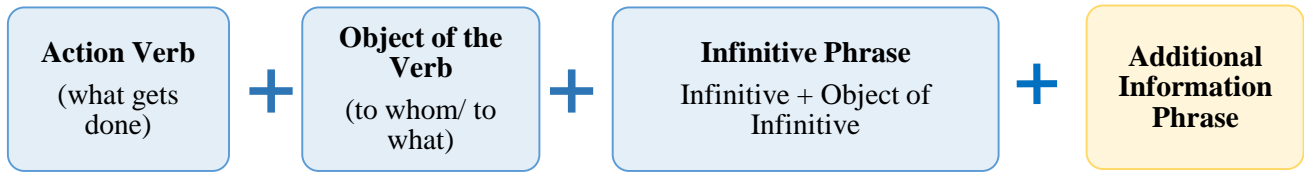
XIII. DEVELOP REPORT FOR SHA

- Include job analysis results
- Develop Job Spec/DTS-3

Handouts for SMEs and Analysis (continued)

Definition of a Task: A step or component in the performance of a job duty. It is the specific behaviors completed to perform the job.

Writing a Task Statement:



Examples of Task Statements:

Action Verb	Object of the Verb	Infinitive Phrase		Additional Information Phrase
Performs what?	To whom/ what	Infinitive	Object of Infinitive	<ul style="list-style-type: none"> • Upon what instruction or source of information (from who?) • Using what equipment or tools • To produce/achieve what output? (in order to)

File	PIN files	to organize	records	for fast lookup
Call	department	to contact	manager	about leave requests
Search	database	to find	data	necessary for study
Answer	phone call	to record	information	from deputy director
Type	document	to create	memo	in order to inform public

Instructions: Think about your most recent full work day (perhaps it was yesterday). Please list all of the specific job tasks that you completed, in order from the start of your shift to the end of your shift. The goal is to write down close to 50 tasks.

Task #	Task/Task Description
--------	-----------------------

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	

TASK IMPORTANCE QUESTIONS AND RATING SCALES



A. Frequency: **N/A** = Not applicable; **R** = Rarely <1% of the time; **O** = Occasionally 1 – 33% of the time; **F** = Frequently 34 – 66% of the time; **C** = Continuously 67 – 100%

B. Task Difficulty Rating Scale

Task Difficulty: Difficulty level in performing a task correctly relative to all other tasks within the job.

Rating Level	Rating Description
1	One of the easiest of all tasks
2	Considerably easier than most tasks performed
3	Easier than most tasks performed
4	Approximately half of the tasks are more difficult and half are less difficult
5	Harder than most tasks performed
6	Considerably harder than most tasks performed
7	One of the most difficult of all tasks

C. Task Criticality Rating Scale

Task Criticality/consequence of error: The degree to which an incorrect performance would result in negative consequence

Rating Level	Rating Description
1	Consequences of error are not at all important
2	Consequences of error are of little importance
3	Consequences are of some importance
4	Consequences are moderately important
5	Consequences are important
6	Consequences are very important
7	Consequences are extremely important

TASK IMPORTANCE RATING SHEET

Instructions: Please circle your answers for the following categories:

- A. Frequency of Task? (highlighted yellow):** Refer to Scale.
- B. Task Difficulty (highlighted red):** Please refer to the Task Importance Rating Scale sheet. Read the descriptions for each rating level. Then circle the appropriate rating level (1 -7) value for task difficulty for each of the following task statements.
- C. Task Criticality (highlighted blue):** Please refer to the Task Importance Rating Scale sheet. Read the descriptions for each rating level. Then circle the appropriate rating level (1 -7) value for task criticality for each of the following task statements.

Task Statement	Freq?	Difficulty	Criticality
Major Duty Function # 1			
1.		1 2 3 4 5 6 7	1 2 3 4 5 6 7
2.		1 2 3 4 5 6 7	1 2 3 4 5 6 7
3.		1 2 3 4 5 6 7	1 2 3 4 5 6 7
4.		1 2 3 4 5 6 7	1 2 3 4 5 6 7
5.		1 2 3 4 5 6 7	1 2 3 4 5 6 7
6.		1 2 3 4 5 6 7	1 2 3 4 5 6 7
7.		1 2 3 4 5 6 7	1 2 3 4 5 6 7
8.		1 2 3 4 5 6 7	1 2 3 4 5 6 7
9.		1 2 3 4 5 6 7	1 2 3 4 5 6 7
10.		1 2 3 4 5 6 7	1 2 3 4 5 6 7
11.		1 2 3 4 5 6 7	1 2 3 4 5 6 7
12.		1 2 3 4 5 6 7	1 2 3 4 5 6 7
Major Duty Function # 2			
13.		1 2 3 4 5 6 7	1 2 3 4 5 6 7
14.		1 2 3 4 5 6 7	1 2 3 4 5 6 7
15.		1 2 3 4 5 6 7	1 2 3 4 5 6 7

KSAO List Draft

KNOWLEDGE:		ABILITIES:	
1.		1.	
2.		2.	
3.		3.	
4.		4.	
5.		5.	
6.		6.	
7.		7.	
8.		8.	
9.		9.	
10.		10.	
11.		11.	
12.		12.	
SKILLS:		OTHER:	
1.		1.	
2.		2.	
3.		3.	
4.		4.	
5.		5.	
6.		6.	
7.		7.	
8.		8.	
9.		9.	
10.		10.	
11.		11.	
12.		12.	

Essential KSAOs

KNOWLEDGE	
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
SKILLS	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
ABILITIES	
22.	
23.	
24.	
25.	
26.	
27.	
28.	
29.	
30.	
OTHER	
31.	
32.	
33.	

KSAO QUESTIONS AND RATING SCALES

KSAO Definition:

- Knowledge – *technical mastery of material needed to perform the job*
- Skill – *capacity to perform tasks using equipment / tools, etc.*
- Ability – *capacity for physical or mental act required to perform the job*
- Other – *interests, values, temperaments, personality (focused on the ‘will do’)*

A. Is the K, S, A, or O necessary for newly hired employees? (yes or no)

B. Is the K, S, A, or O practical to expect in the labor market? (yes or no)

C. Trouble Likely Scale:

Trouble Likely if Ignored in Selection: To what extent is trouble likely if this K, S, A, or O is ignored in selection (compared with the other KSAOs)?

Rating Level	Rating Description
1	Very little or none
2	To some extent
3	To a great extent
4	To a very great extent
5	To an extremely great extent

D. Distinguish Superior from Average Scale:

Distinguish Superior from Average Worker: To what extent do different levels of the KSAO distinguish the superior from the average worker (compared with the other KSAOs)?

Rating Level	Rating Description
1	Very little or none
2	To some extent
3	To a great extent
4	To a very great extent
5	To an extremely great extent

KSAO RATING SHEET

KSAOs	Necessary New Hire	Practical	Trouble Likely	Superior From Average
KNOWLEDGE				
1.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
2.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
3.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
4.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
5.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
6.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
7.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
8.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
9.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
10.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
11.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
12.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
SKILLS				
13.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
14.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
15.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
16.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
17.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
18.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
19.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
20.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
21.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
22.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
ABILITIES				
26.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
27.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
28.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
29.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
30.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
31.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
32.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
33.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
34.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
35.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
36.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
OTHER				
40.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
41.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
42.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
43.	Y N	Y N	1 2 3 4 5	1 2 3 4 5
44.	Y N	Y N	1 2 3 4 5	1 2 3 4 5

FINALIZED LIST OF KSAOs

KSAOs	New Hires	Practical	Trouble Likely	Superior From Average
KNOWLEDGE				
SKILLS				
ABILITIES				
OTHER				

Instructions: In a typical work day, indicate the frequency of which physical demands you experience. Please place an “X” in the box under the frequency in which that demand is experienced.

Use the following scale: **N/A = Not applicable;** **R = Rarely** <1% of the time; **O = Occasionally** 1 – 33% of the time; **F = Frequently** 34 – 66% of the time; **C = Continuously** 67 – 100%

PHYSICAL DEMANDS:

Activities	N/A 0%	R <1%	O 1-33%	F 34-66%	C 67-100%	Comments
Carrying						
Climbing						
Climbing ladders/stairs						
Customer interaction						
Color vision						
Good hearing						
Good vision						
Jogging						
Keyboard						
Kneeling						
Lifting						Up to _____ pounds
Listening						
Manual dexterity						
Other (specify)						
Other occasional physical tasks						
Pulling						
Pushing						
Reaching						
Sitting						
Speaking						
Specific physical requirements						
Standing						
Stooping						
Twisting						
Use of tools						
Walking						
Work rapidly for long periods						
Work under time pressure						
DEXTERITY REQUIREMENTS						
Eye/hand coordination						
Feet (foot pedals)						
Finger use (picking, pinching, using a calculator, pushing buttons).						
Handling (holding, grasping)						
Wrist motion (repetitive flexion/rotation)						

Instructions: In a typical work day, indicate the frequency of which abilities you use to perform your job. Please place an “X” in the box under the frequency in which that demand is experienced.

Use the following scale: **N/A = Not applicable**; **R = Rarely** <1% of the time; **O = Occasionally** 1 – 33% of the time; **F = Frequently** 34 – 66% of the time; **C = Continuously** 67 – 100%

ABILITIES:

Abilities	N/A 0%	R <1%	O 1-33%	F 34-66%	C 67-100%	Comments
COGNITIVE						
Problem solving						
Analytic Ability						
Communication - oral						
Communication - written						
Spatial orientation						
Organization						
Interpersonal skills						
Calculating						
Concentration						
Perception						
Creativity						
Working with interruptions						
Other (specify)						
PSYCHOMOTOR						
Arm-hand steadiness						
Control precision						
Finger dexterity						
Manual dexterity						
Multi-limb coordination						
Rate control						
Reaction time						
Response orientation						
Speed of limb movement						
Wrist-finger speed						
SENSORY						
Auditory attention (hearing)						
Depth perception						
Far Vision						
Glare sensitivity						
Hearing sensitivity						
Near vision						
Night vision						
Peripheral vision						
Sound localization						
Speech clarity						
Speech recognition						
Visual color discrimination						

Instructions: In a typical work day, indicate the frequency of which environmental conditions that you experience. Please place an “X” in the box under the frequency in which that demand is experienced.

Use the following scale: **N/A = Not applicable;** **R = Rarely** <1% of the time; **O = Occasionally** 1 – 33% of the time; **F = Frequently** 34 – 66% of the time; **C = Continuously** 67 – 100%

ENVIRONMENTAL CONDITIONS:

	N/A 0%	R <1%	O 1-33%	F 34- 66%	C 67-100%	Comments
LOCATION						
Indoors						
Outdoors						
At a desk						
Underground						
In a car or truck						
In an office						
Other (specify)						
CONDITION						
Extreme heat						
Extreme cold						
Dust						
Dirt						
Fumes						
Chemicals						
Cramped area						
Dampness						
Vibrations						
Noise						
Dangerous machinery						
Exposure to electrical hazards						
Travel required						
On call						
Stand on concrete						
Exposure to toxic material						
Works at unprotected heights						
Walk on uneven or slippery surface						
Works with others						
Works alone						
Works with moving machinery						
Other (specify)						

Demographic Survey

A. Please mark the following range that includes your age.

- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- 55-64 years old
- 65-74 years old
- 75 years or older
- Decline to answer

B. Please mark the following which represents your gender.

- Female
- Male
- Decline to answer

C. Please mark the following which best represents the education you have received.

- Some high school, no diploma
- High school diploma or the equivalent (GED)
- Some college credit, no degree
- Trade/technical/vocational training
- Associate degree
- Bachelor's degree
- Master's degree
- Professional degree
- Doctorate degree
- Decline to answer

D. Please indicate how long you have served in your current position. _____

E. Please mark the following range that includes your race.

- White
- Black or African American
- Hispanic or Latino
- Asian
- American Indian or Alaska Native
- Native Hawaiian or Other Pacific Islander