Job Analysis: Student IT Technician I

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Section 1
Job Analysis Process

This job analysis was created for the position of Student IT (Information Technology) Technician I at Texas A&M University (TAMU). TAMU is composed of many different departments and colleges and, due to its size, takes many different approaches to IT support and repair. Smaller departments may opt to receive support services from Computing and Information Services, the main IT division for TAMU. Some colleges, for sake of control and/or expediency, choose to establish their own IT departments.

In this job analysis, I study two departments: College of Architecture Information Technology Services (ITS), and Biomedical Engineering IT Support. The two departments have a similar mandate: full support and repair duties for all Information Technology within their departments. However, as the College of Architecture supports many different programs: Department of Landscape Architecture, Department of Construction Science, Department of Architecture, the Center for Housing and Urban Development (including its various facilities in different cities), and even the Architecture Ranch (a fabrication facility located on TAMU Riverside Campus), their ITS department consists of a fairly large staff. By contrast, the Department of Biomedical Engineering supports several research labs and a student computing facility, along with their faculty and is, as such, much smaller.

To help understand the requirements of each department, I contacted subject matter experts (SME's), the direct supervisors of the Student Technicians I interviewed. Only one SME, the supervisor from Architecture, was willing to provide me with guidance over the subject material.

Phase one of the analysis consisted of an interview with the previously mentioned SME. The interview consisted of a description of duties and requirements of the position, as well as the general job description. As I learned, it is not uncommon in larger departments to completely divide up sections of the workload so that specific individuals may not perform many of the same tasks, despite their similar job-titles.

Due to the non-cooperation of the second SME, data was gathered from a preliminary interview with my subject from Biomedical Engineering. The same interview was given and differences were noted, such as a lack of scheduled updates, large-scale software script deployment, telephone-based technical support, or formalized records.

Phase two of the analysis process involved cross-referencing the knowledge, skills, and abilities (KSAs) gathered from the SME with those found on the Occupational Network (O*NET). KSA's were edited to enhance brevity and comprehension.

Phase three consisted of questionnaire construction. Tasks were divided into six major categories which were rated according to difficulty, importance, and criticality. The previously developed KSA's were also rated for relevance in accordance to their sub-task application and general job impact.

The fourth phase entailed the compilation of a final job analysis report. All data was averaged and represented in group tab les. Data that was applicable for one department but not applicable for another was represented as the average of the applicable scores.

Section 2
Job Description and Requirements

Note: This analysis is for one job title (Student IT Technician I) at Texas A&M University. This study includes two different departments (Architecture and Biomedical Engineering)

A student IT technician is responsible for the general maintenance and repair of their department's information technology inventory. They also handle direct customer support and may be required to handle both face-to-face and phone support issues. As such, they are often expected to handle customers in a very intellectually and emotionally demanding context. This requires great emotional stability and interpersonal communication. If the problem cannot be solved remotely or on-site, the technician must take the machine back to the service bench, which often requires moderate lifting. Also, to reduce the total number of technical problems, many technicians also double as instructors for users. This can also expand into the production of documentation, both for internal and external use.

The standard work-flow of a technician is based around existing problems and their resolution. This results in a strongly variable work schedule which can be either highly demanding or entirely uneventful. Larger departments necessitate greater coordination between technicians. Difficult problems may often require heavy collaboration to ensure resolution. This is also important when supporting multiple operating systems, such as Windows and Macintosh, where individual technicians can have differing experience and abilities.

Projects are also extremely important and must often compete with imminent time-demands from users. Technicians must monitor and manage their time effectively to ensure that time-sensitive issues are solved in proper order. Projects tend to be large scale implementations of solutions, such as lab upgrades or system image preparation. System images are used to create multiple exact copies of entire software and settings packages. They are often deployed over many similar computers, as in computer labs, or are used for standard system restoration. Failure to prepare and test a proper system image can result in widespread problems and software licensing issues. To aid in large projects, repetitive actions can be programmed in advance in the form of scripts.

Individual system repairs can be very complicated and are attributable to a complex interplay between software, hardware, and user capability. A technician must be able to replicate an issue and then isolate its occurrence. In the case of software issues, technicians must be able to rely upon multiple forms of software, such as virus scanners, diagnostic tools, RAID arrays, and hard disk wipers. If the problem is a hardware issue, the technician must be able to identify the failing part and perform a replacement. This can involve replacement of the part with existing stock or require contacting the vendor for a Return Merchandise Authorization (or RMA) if the product is still under warranty. Tools for these repairs involve voltmeters, screwdrivers, cable ties, thermal paste, electrical tape, and, occasionally, soldering irons.

For large departments such as ITS, fully digitized and archived records are kept for reference. This helps both organize current labor and to provide records for reference of previously solved issues. Much of the technician's time may be spent interacting with this system. In smaller departments, like Biomedical Engineering, there may be no official record keeping system and the technician may instead rely on a whiteboard and hand-written notes to keep track of current tasks.

Dress code requirements for student technicians are not very strict. They are expected to wear clothing in good condition with close-toed shoes. Many duties for technicians require lying on floors and digging through rarely-used closets and crawlspaces. The constant use of tools also provides a hazard to exposed feet. Out of interest for all of these cases, very little emphasis is placed on attire outside of general safety and serviceability.

Student technicians work between twelve and twenty hours a week, dependent on class load. As student workers, their class schedules come first. This can cause work schedules to be divided. The daily time is spent either solving problems, reading up on technical documentation, working on outstanding projects, or carrying out small tasks around the office while waiting for more user issues.

Many technicians also work during times when the university is operational but classes are not. In some cases, they make take on up to forty hours a week to help prepare for classes. This time is usually used for large projects and preparation and is generally considered to be a highly stressful period.

Offices can vary widely from department to department. The ITS office consists of a keypad locked technical office with a workbench; access switches for working on multiple machines at once; several sub-offices for web-development personnel and supervisors; and another keypad locked server room. This is due to security requirements for the protection of the software licenses stored in the workbench area and to restrict user access to sensitive data storage in the server area.

In the case of Biomedical Engineering, the office is a fairly standard business office outfitted with technical equipment. Software licenses are kept digitally and the department does not manage its own servers, so much less space is required.

There are no specific certifications required for employment as a technician. However, there are optional certifications available, such as the CompTIA A+ Certification or training provided by specific computer manufacturers such as Dell. Much experience is gained through on the job training and technical manuals. Man y positions require a skills test which may take the form of either a paneled oral examination over common technical problems or a practical demonstration of system assembly, disassembly, and maintenance. Student technicians are required to be currently enrolled students and must get approval over schedules from their supervisor. Turnover rates can be quite high due to graduation or general attrition from the stress required for the position.

Section 3
Tasks

Note: Tasks which are not relevant to the Biomedical Engineering department are highlighted

I. Maintain Computers

- Schedule regular system update points.
- Check computer operation.
- Deploy update scripts.
- Collect all malfunctioning machines for further service.

II. Assist Users

- Talk with client over phone, *or*
- Talk with client in person, *or*
- Gather client issue details from written record.
- Analyze problem machine on site, *or*
- Analyze machine through remote connection.
- Troubleshoot issue.
- Document solution, *or*
- Collect machine for further repair.

III. Maintain Records

- Access record system.
- Read current records.
- Organize records.

IV. Refer Damaged Products to Vendors

- Identify failed component.
- Telephone or e-mail vendor.
- Discuss specific problem.
- Ship damaged product to vendor.
- Communicate status to client.

V. Documentation Development

- Identify user problem area.
- Recreate issue.
- Establish solution.
- Prepare a document or video for user access

VI. System Image Preparation

- Prepare a list of desired software.
- Query users for desired software.
- Prepare machine for image.
- Install listed software
- Run system updates.
- Test image.
- Capture image.

Section 4
KSAs

I. Knowledge

- **Knowledge of Windows Operating System (OS)**: familiarity with functions, maintenance, and capabilities of Windows OS.
- **Knowledge of Macintosh OS**: familiarity with functions, maintenance, and capabilities of Windows OS.
- **Knowledge of GNU-Linux OS**: familiarity with functions, maintenance, and capabilities of Windows OS.
- **Knowledge of Microsoft Office**: familiarity with functions, maintenance, and capabilities of Microsoft Office; may include macro programming.
- **Knowledge of programming**: understanding of one of many programming languages.

II. Skills

- **Writing**: communicating effectively in writing as appropriate for the needs of the audience.
- **Problem solving**: the use of logic and reason to resolve errors and obstacles.
- **Critical thinking**: using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
- **Monitoring**: monitoring/assessing personal performance to make improvements.
- **Time management**: managing one's own time.
- **Instruction**: teaching others how to do something.
- **Social perception**: being aware of others' reactions and understanding why they react as they do.
- **Interpersonal skills:** use of skills such as active listening and tone of voice to facilitate understanding between people.
- **Batch file programming:** the creation of automated system scripts to facilitate machine function.

III. Abilities

- **Oral comprehension**: the ability to listen to and understand spoken information and ideas.
- **Oral expression**: the ability to allow understanding through communication of and ideas and information.
- **Written comprehension**: the ability to read and understand information and ideas presented in writing.
- **Written expression**: the ability to communicate information and ideas in writing so others will understand.
- **Intelligence**: the capacity to understand, reason, and establish relationships between different subjects.
- **Strength**: the ability to lift, carry, and otherwise bring physical force to bear on an object
- **Judgment**: the capacity to form an objective opinion and to discern implications.
- **Memory**: the ability to recall detailed information.

Section 5
Analyses

A. Task Statements

For this section, please rate the task statements on the three scales described below.

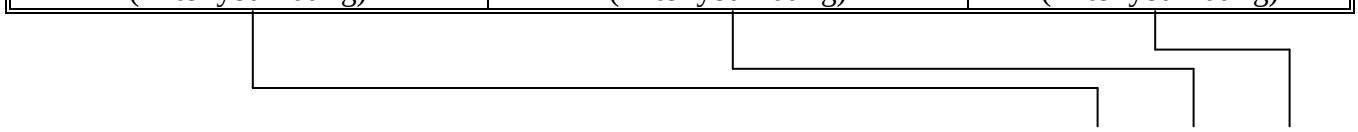
I. In relation to all the tasks listed, how much **time is spent** on this task?
Use the "Time Spent" scale found in the first column at the top of the page. We suggest that you read all the task statements before answering this question for any task so that you can answer the question relative to the other task statements.

II. In relation to all the tasks listed, how **difficult** is this task?
Use the "Task Difficulty" scale found in the second column at the top of the page. Again, because this question is asking for task difficulty relative to the other tasks, we suggest that you read all the tasks before answering this question for any one task.

III. In relation to all the tasks listed, how **critical** is it that this task is done well? In other words, what problems would occur from an error on this task?
Use the "Criticality" scale found in the third column at the top of the page.

The scales are:

I. Time Spent	**II. Task Difficulty**	**III. Criticality**
0 = Does not apply	0 = Does not apply	0 = Does not apply
1 = Rarely do	1 = One of the easiest of all tasks	1 = Not at all critical
2 = Below average	2 = Easier than most	2 = Somewhat critical
3 = Average (approximately 1/2 tasks take more time, 1/2 take less)	3 = Approximately 1/2 tasks more difficult, 1/2 less	3 = Critical
4 = Above average	4 = Harder than most tasks	4 = Very critical
5 = Considerably above average	5 = One of the most difficult tasks	5 = Extremely critical
(Enter your rating)	(Enter your rating)	(Enter your rating)



Example:	I.	II.	III
Answers phones.	1	2	4

In this example, a member has rated a task on each of the rating scales. The task is "Answers phones."

I. 1 means that the time spent answering phones is very little compared to other tasks.
II. 2 means that answering phones is easier than most tasks.
III. 4 means that answering phones is very critical. That is, problems are likely to occur if the phones are not answered properly.

I. Time Spent	II. Task Difficulty	III. Criticality
0 = Does not apply 1 = Rarely do 2 = Below average 3 = Average (approximately 1/2 tasks take more time, 1/2 take less) 4 = Above average 5 = Considerably above average (Enter your rating)	0 = Does not apply 1 = One of the easiest of all tasks 2 = Easier than most 3 = Approximately 1/2 tasks more difficult, 1/2 less 4 = Harder than most tasks 5 = One of the most difficult tasks (Enter your rating)	0 = Does not apply 1 = Not at all critical 2 = Somewhat critical 3 = Critical 4 = Very critical 5 = Extremely critical (Enter your rating)

	I.	II.	III
I. Maintain Computers			
Schedule regular system update points.	1.33	1	1.67
Check computer operation.	3.33	1.67	3.67
Deploy update scripts.	2	2	2
Collect all malfunctioning machines for further service.	4	2	4.33
II. Assist Users			
Talk with client over phone	1.33	1.67	0.67
Talk with client in person	3.67	2.67	4
Gather client issue details from written records.	3	2.33	3.67
Analyze problem machine on-site.	3.67	4	4.33
Analyze machine through remote connection.	1.67	1.33	2
Use computer to make changes to homepage.	0.33	0.33	0.33
Document solution.	2.33	2.33	3
Collect machine for further repair.	4	2	4
III. Maintain Records			
Access record system.	1.33	1.00	1.33
Read current records.	1.33	1.00	2.00
Organization of records.	1.67	2.00	2.33
IV. Refer Damaged Products to Vendors			
Identify failed component.	4.33	4.33	4.33
Telephone or e-mail vendor.	1.33	1.67	2.67
Discuss specific problem.	1.67	1.33	2.67
Ship damaged product to vendor.	1.33	1.00	4.33
V. Documentation Development			
Identify user problem area.	4.00	4.00	4.33

Recreate issue.	3.67	4.00	4.33
Establish solution.	3.00	3.00	4.33
Prepare a document or video for user access	0.67	1.00	0.33
VI. System Image Preparation			
Prepare a list of desired software.	2.33	2.00	4.33
Query users for desired software.	3.67	3.00	4.33
Prepare machine for image.	3.00	2.00	4.67
Run system updates.	3.67	1.33	4.33
Test image.	4.00	2.67	4.67
Capture image.	2.33	2.00	4.00

Summary Analyses of Task Dimensions

Mean Scores across Dimensions

	Time Spent	**Task Difficulty**	**Criticality**
Maintain Computers	2.67	1.67	2.92
Assist Users	2.5	2.08	2.75
Maintain Records	1.44	1.33	1.89
Refer Damaged Products to Vendors	2.17	2.08	3.5
Documentation Development	2.83	3	3.33
System Image Preparation	3.17	2.17	4.39

B. Knowledge, Skills, and Abilities

Listed on the next page are the knowledges, skills, and abilities (KSAs) that members need to have to perform well in this job. Please answer the following questions on these KSAs:

I. Is this KSA **necessary** to do the job?

Simply answer "Yes" or "No" for this question.

II. What is the extent of **trouble if** a person is **lacking** this KSA?

Use the "Trouble if Lacking" scale found at the top of the page.

III. Does having this KSA **distinguish an average member from a superior one**? In other words, is having a high amount of this knowledge or ability necessary for performing very well on the job.

Use the "Distinguish Superior from Average" scale found at the top of the page.

The Scales are:

	I. Necessary YES or NO (underline one)	**II. Trouble if Lacking** 0 = Does Not Apply 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 (Enter your rating)	**III. Distinguish Superior From Average** 0 = Does Not Apply 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 (Enter your rating)
Knowledge of surveys: Understanding of how to answer the phone.	<u>YES</u> or NO	**4**	**2**

In this example, a member has rated the knowledge "Knowledge of phones."

I. <u>Yes</u> means that a member must have knowledge of phones.

II. <u>4</u> means that trouble is likely (to a very great extent) when performing the job if knowledge of phones is lacking.

III. <u>2</u> means that knowledge of phones distinguishes average performers from superior ones to some extent.

KNOWLEDGE	**I. Necessary** Total # of Yes responses (out of 3)	**II. Trouble if Lacking** 0 = Does Not Apply 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 (Enter your rating)	**III. Distinguish Superior From Average** 0 = Does Not Apply 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 (Enter your rating)
Knowledge of Windows Operating System (OS): familiarity with functions, maintenance, and capabilities of Windows OS.	1	5	5
Knowledge of Macintosh OS: familiarity with functions, maintenance, and capabilities of Windows OS.	1	2.5	2.5
Knowledge of GNU-Linux OS: familiarity with functions, maintenance, and capabilities of Windows OS.	0	0.5	1
Knowledge of Microsoft Office: familiarity with functions, maintenance, and capabilities of Microsoft Office; may include macro programming. .	0.5	2	2
Knowledge of Programming: understanding of one of many programming languages.	0	0.5	1.5

SKILLS	I. Necessary Total # of Yes responses (out of 3)	II. Trouble if Lacking 0 = Does Not Apply 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 (Enter your rating)	III. Distinguish Superior From Average 0 = Does Not Apply 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 (Enter your rating)
Writing: communicating effectively in writing as appropriate for the needs of the audience.	3	4	3
Problem Solving: the use of logic and reason to resolve errors and obstacles.	3	4.33	5
Critical thinking: using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.	3	4.33	5
Monitoring: monitoring/assessing performance of yourself to make improvements.	1	2.67	3.33
Time management: managing one's own time.	1	2.67	3.33
Instruction: teaching others how to do something.	3	3.33	3.33
Social perception: being aware of others' reactions and understanding why they react as they do.	3	3.33	4
Interpersonal Skills: use of skills such as active listening and tone of voice to facilitate understanding between people.	3	3.67	4.33

ABILITIES	**I. Necessary** Total # of Yes responses (out of 3)	**II. Trouble if Lacking** 0 = Does Not Apply 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 (Enter your rating)	**III. Distinguish Superior From Average** 0 = Does Not Apply 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 (Enter your rating)
Oral comprehension and expression: the ability to listen to and understand spoken information and ideas and to communicate information and ideas in speaking so others will understand.	3	4.33	3.33
Written comprehension and expression: the ability to read and understand information and ideas presented in writing and to communicate information and ideas in writing so others will understand.	2	4	4
Intelligence: the capacity to understand, reason, and establish relationships between different subjects.	2	2.667	3.667
Strength: the ability to lift, carry, and otherwise bring physical force to bear on an object	0	1.67	2
Judgment: the capacity to form an objective opinion and to discern implications.	1	3	3.33
Memory: the ability to recall detailed information.	3	3.67	4

C. Relevance - Knowledge

In this last section, the knowledge, skills, and abilities need to be rated according to their relevance for the performance of each of the major tasks. By relevance, we mean that people should have the knowledge, skill, or ability to perform well on the task.

Use the "Relevance" scale found on the top of the page.

The Scale is:

Relevance		
0 = Not Relevant	1 = Relevant	2 = Very Relevant

Example: I. Knowledge of Surveys

TASK	I
Answer the phone.	2

In this example, the person judged that Knowledge of surveys were very relevant to performing well when filling out surveys.

Please turn to the next page and complete your ratings for a select number of the knowledges, skills, and abilities for each task.

Relevance		
0 = Not Relevant	1 = Relevant	2 = Very Relevant

KNOWLEDGE

A = Knowledge of Windows OS
B = Knowledge of Macintosh OS
C = Knowledge of GNU-Linux OS
D = Knowledge of Microsoft Office
E = Knowledge of programming

TASKS	A	B	C	D	E
I. Maintain Computers					
Schedule regular system update points.	2	1	0.5	1	0
Check computer operation.	2	1.3	0.33	1	0
Deploy update scripts.	2	1	0.5	0	2
Collect all malfunctioning machines for further service.	2	1	0.5	1	0
II. Assist Users					
Talk with client over phone	2.00	1.50	0.00	1.00	0.00
Talk with client in person	2.00	1.33	0.00	1.33	0.00
Gather client issue details from written record.	0.67	0.67	0.00	0.67	0.00
Analyze problem machine on site	2.00	1.33	0.00	0.67	0.00
Analyze machine through remote connection.	2.00	0.33	0.00	0.67	0.00
Troubleshoot issue.	2.00	1.33	0.00	1.00	0.00
Document solution.	1.33	1.00	0.00	0.67	0.00
Collect machine for further repair.	0.00	0.00	0.00	0.00	0.00
III. Maintain records					
Access record system.	0	0	0	1.5	0
Read current records.	0	0	0	1	0
Organization of records	0	0	0	1.5	0

Relevance		
0 = Not Relevant	1 = Relevant	2 = Very Relevant

KNOWLEDGE

A = Knowledge of Windows OS
B = Knowledge of Macintosh OS
C = Knowledge of GNU-Linux OS
D = Knowledge of Microsoft Office
E = Knowledge of programming

TASKS	A	B	C	D	E
IV. Refer Damaged Products to Vendors					
Identify failed component.	1.67	1.00	0.00	0.00	0.33
Telephone or e-mail vendor.	1.00	1.00	0.00	0.00	0.00
Discuss specific problem.	1.50	1.00	0.00	0.00	0.00
Ship damaged product to vendor.	0.00	0.00	0.00	0.00	0.00
Communicate status to client.	0.67	0.33	0.00	0.00	0.00
V. Documentation Development					
Identify user problem area.	2.00	1.33	0.00	1.33	0.00
Recreate issue.	2.00	1.33	0.00	1.33	0.00
Establish solution.	2.00	1.33	0.00	1.33	0.00
Prepare a document or video for user access	0.00	0.00	0.00	1.00	0.00
VI. System Image Preparation					
Prepare a list of desired software.	0.67	0.33	0.00	0.67	0.00
Query users for desired software.	0.00	0.00	0.00	0.00	0.00
Prepare machine for image.	1.67	1.33	0.00	0.00	0.00
Install listed software	2.00	1.33	0.00	0.67	0.00
Run system updates.	1.00	1.00	0.00	0.33	0.00
Test image.	2.00	1.33	0.00	0.67	0.00
Capture image.	1.33	0.67	0.00	0.00	0.33

D. Relevance - Skills

Relevance		
0 = Not Relevant	1 = Relevant	2 = Very Relevant

SKILLS:
F = Writing
G = Problem Solving
H = Critical Thinking
I = Monitoring
J = Time Management
K = Instruction
L = Social Perception
M = Interpersonal Skills
N = Batch File Programming

TASKS	F	G	H	I	J	K	L	M	N
I. Maintain Computers									
Schedule regular system update points.	0.00	0.50	0.50	0.50	1.00	0.00	0.00	0.00	1.00
Check computer operation.	0.00	1.33	1.33	0.67	1.00	0.00	0.00	0.00	0.00
Deploy update scripts.	0.50	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.50
Collect all malfunctioning machines for further service.	0.00	0.00	0.00	0.33	1.00	0.00	0.33	1.00	0.00
II. Assist Users									
Talk with client over phone	0.00	1.50	1.50	0.00	1.00	1.50	2.00	2.00	0.00
Talk with client in person	0.00	1.67	1.67	0.33	1.33	1.67	2.00	2.00	0.00
Gather client issue details from written record.	1.67	1.33	1.33	0.33	1.33	0.00	0.33	0.33	0.00
Analyze problem machine on site	0.00	2.00	2.00	0.33	1.33	0.67	1.33	1.67	0.00
Analyze machine through remote connection.	0.00	1.67	1.67	0.33	1.33	0.33	0.33	0.33	0.00
Troubleshoot issue.	0.33	2.00	2.00	0.67	1.00	0.33	0.67	0.67	0.00
Document solution.	2.00	1.33	1.33	0.33	1.00	1.00	0.33	0.33	0.00
Collect machine for further repair.	0.00	0.00	0.00	0.33	1.00	0.33	0.67	1.00	0.00
III. Maintain records									
Access record system.	0.50	0.50	0.50	0.50	0.50	0.00	0.00	0.00	0.00
Read current records.	0.50	0.50	0.50	0.00	0.50	0.00	0.00	0.00	0.00
Organize records.	1.50	1.00	1.00	0.00	0.50	0.00	0.00	0.00	0.00

Relevance		
0 = Not Relevant	1 = Relevant	2 = Very Relevant

SKILLS:
F = Writing
G = Problem Solving
H = Critical Thinking
I = Monitoring
J = Time Management
K = Instruction
L = Social Perception
M = Interpersonal Skills
N = Batch File Programming

TASKS	F	G	H	I	J	K	L	M	N
IV. Refer Damaged Products to Vendors									
Identify failed component.	0.33	2.00	2.00	0.67	1.33	0.00	0.00	0.00	0.00
Telephone or e-mail vendor.	2.00	1.00	1.00	0.50	1.00	0.50	1.50	1.50	0.00
Discuss specific problem.	0.00	2.00	1.50	0.00	1.00	1.50	1.50	1.50	0.00
Ship damaged product to vendor.	0.33	0.33	0.33	0.67	0.67	0.00	0.00	0.00	0.00
Communicate status to client.	1.33	0.67	0.67	0.33	0.67	1.00	1.67	1.33	0.00
V. Documentation Development									
Identify user problem area.	0.33	1.67	1.67	0.00	0.67	1.00	1.33	1.67	0.00
Recreate issue.	0.00	2.00	2.00	0.67	1.00	0.33	1.33	0.67	0.00
Establish solution.	0.00	2.00	2.00	0.67	1.00	1.33	1.00	1.00	0.00
Prepare a document or video for user access	1.50	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
VI. System Image Preparation									
Prepare a list of desired software.	1.00	0.33	1.33	0.67	1.00	0.33	1.00	0.67	0.00
Query users for desired software.	1.00	0.33	1.00	0.67	1.00	0.33	2.00	1.67	0.00
Prepare machine for image.	0.00	1.67	1.67	0.67	1.00	0.00	0.00	0.00	0.33
Install listed software	0.00	1.00	1.00	1.00	1.33	0.00	0.00	0.00	0.00
Run system updates.	0.00	0.67	0.67	1.00	1.33	0.00	0.00	0.00	0.00
Test image.	0.67	2.00	2.00	0.67	1.00	0.00	0.33	0.00	0.33
Capture image.	0.00	1.33	1.33	1.00	1.00	0.00	0.00	0.00	0.67

E. Relevance – Abilities

Relevance		
0 = Not Relevant	1 = Relevant	2 = Very Relevant

ABILITIES:

O = Oral comprehension & expression
P = Written comprehension & expression
Q = Intelligence
R = Strength
S = Judgment
T = Memory

TASKS	O	P	Q	R	S	T
I. Maintain Computers						
Schedule regular system update points.	0.00	0.50	1.00	0.00	0.50	1.00
Check computer operation.	0.00	0.67	2.00	0.00	1.67	1.00
Deploy update scripts.	0.00	1.00	1.00	0.00	1.00	1.50
Collect all malfunctioning machines for further service.	0.67	0.33	0.33	2.00	1.00	1.00
II. Assist Users						
Talk with client over phone	2.00	0.50	1.00	0.00	1.50	1.00
Talk with client in person	2.00	0.33	1.33	0.00	1.67	1.33
Gather client issue details from written record.	0.00	2.00	1.33	0.00	1.33	2.00
Analyze problem machine on site	1.67	1.00	2.00	0.00	2.00	1.00
Analyze machine through remote connection.	1.00	1.00	2.00	0.00	2.00	0.67
Troubleshoot issue.	0.67	1.67	2.00	0.00	2.00	1.67
Document solution.	0.00	2.00	1.33	0.00	1.33	1.33
Collect machine for further repair.	1.00	0.00	0.00	2.00	1.33	0.67
III. Maintain records						
Access record system.	0.00	2.00	0.50	0.00	0.50	1.00
Read current records.	0.00	2.00	1.00	0.00	0.50	1.00
Organize records.	0.00	2.00	0.50	0.00	0.50	1.00

ABILITIES:

O = Oral comprehension & expression
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TASKS	O	P	Q	R	S	T
IV. Refer Damaged Products to Vendors						
Identify failed component.	0.33	1.33	2.00	0.33	2.00	1.67
Telephone or e-mail vendor.	1.50	2.00	1.50	0.00	1.50	1.50
Discuss specific problem.	1.50	1.00	2.00	0.00	2.00	1.50
Ship damaged product to vendor.	0.33	1.33	0.33	0.33	0.67	0.67
Communicate status to client.	1.33	2.00	1.33	0.00	1.33	1.67
V. Documentation Development						
Identify user problem area.	1.67	2.00	2.00	0.00	2.00	1.67
Recreate issue.	0.67	0.67	2.00	0.33	1.67	2.00
Establish solution.	0.33	1.33	2.00	0.00	1.67	2.00
Prepare a document or video for user access	1.00	2.00	1.50	0.00	1.00	1.50
VI. System Image Preparation						
Prepare a list of desired software.	0.67	1.33	1.33	0.00	1.67	2.00
Query users for desired software.	1.67	2.00	1.00	0.00	1.33	1.67
Prepare machine for image.	0.00	1.00	2.00	0.33	1.67	1.00
Install listed software	0.00	1.00	1.00	0.00	1.33	1.33
Run system updates.	0.00	0.67	0.33	0.00	0.33	1.33
Test image.	0.00	1.00	2.00	0.00	2.00	1.67
Capture image.	0.00	0.67	1.67	0.00	0.67	0.67

Summary Analyses for Relevance of KSAs

A = Knowledge of Windows OS
B = Knowledge of Macintosh OS
C = Knowledge of GNU-Linux OS
D = Knowledge of Microsoft Office
E = Knowledge of Programming
F = Writing
G = Problem Solving
H = Critical Thinking
I = Monitoring
J = Time Management
K = Instruction
L = Social Perception
M = Interpersonal Skills
N = Batch File Programming
O = Oral Comprehension & Expression
P = Written Comprehension & Expression
Q = Intelligence
R = Strength
S = Judgment
T = Memory

	A	B	C	D	E	F	G	H	I	J
Maintain Computers	1.50	0.83	0.33	0.50	0.50	0.13	0.71	0.71	0.63	1.00
Assist Users	1.50	0.94	0.00	0.75	0.00	0.50	1.44	1.44	0.33	1.17
Maintain Records	0.00	0.00	0.00	1.33	0.00	0.83	0.67	0.67	0.17	0.50
Refer Damaged Products to Vendors	0.97	0.67	0.00	0.00	0.07	0.80	1.20	1.10	0.43	0.93
Documentation Development	1.50	1.00	0.00	1.25	0.00	0.46	1.67	1.67	0.33	0.92
System Image Preparation	1.24	0.86	0.00	0.33	0.05	0.38	1.05	1.29	0.81	1.10

	K	L	M	N	O	P	Q	R	S	T
Maintain Computers	0.00	0.08	0.25	0.63	0.17	0.63	1.08	0.50	1.04	1.13
Assist Users	0.73	0.96	1.04	0.00	1.04	1.06	1.38	0.25	1.65	1.21
Maintain Records	0.00	0.00	0.00	0.00	0.00	2.00	0.67	0.00	0.50	1.00
Refer Damaged Products to Vendors	0.93	0.60	0.93	0.87	1.00	1.53	1.43	0.13	1.50	1.40
Documentation Development	0.92	0.92	1.17	1.08	0.92	1.50	1.88	0.08	1.58	1.79
System Image Preparation	1.10	0.10	0.48	0.33	0.33	1.10	1.33	0.05	1.29	1.38