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PURPOSE

To provide a discussion and overview of job analysis as it pertains to the development and administration of job-related, legally defensible examination processes and the selection procedures/instruments that comprise the examination processes.

The State Personnel Board is responsible for overseeing the State's selection system, including testing and examination processes conducted on both centralized and decentralized bases, as well as ensuring that departmental testing activities result in merit-based, job-related selection decisions in the civil service. It is the intent of the State Personnel Board to foster consistent and equitable selection standards for State agencies and departments conducting civil service examination processes.

AUTHORITY

Constitution of the State of California, Article VII, Section 1 (b)
In the civil service permanent appointment and promotion shall be made under a general system based on merit ascertained by competitive examination.

Government Code Sections

18500	18930	18950
18701	18930.5	18951
18710	18937	19702.1
18900		

California Code of Regulations, Title 2
Section 206

Americans with Disabilities Act

California Fair Employment and Housing Act

Civil Rights Act of 1964, Title VII

Civil Rights Act of 1991

Principles for the Validation and Use of Personnel Selection Procedures

Standards for Educational and Psychological Testing

Uniform Guidelines on Employee Selection Procedures
(29 CFR 1607)

POLICY SUMMARY

The State's civil service testing activities shall ensure that individuals hired and promoted in the civil service are selected on the basis of their job-related qualifications. Such selection decisions shall be free of illegal discrimination and political patronage. Through the use of sound, job-related examination processes, individuals who possess the requisite qualifications to perform successfully on the job will be identified and considered for hire and promotion in the civil service without regard to non-job-related or illegally discriminatory criteria. Job analysis is the foundation for developing and administering job-related examination processes.

Job analysis shall serve as the primary basis for demonstrating and documenting the job-relatedness of examination processes conducted for the establishment of eligible lists within the State's civil service. Further, job analyses conducted by agencies and departments shall adhere to the legal and professional standards outlined in this section, and agencies and departments shall ensure that the following elements are included in job analysis studies conducted:

- The job analysis must be performed for the job for which the subsequent selection procedure is developed and used
- The job analysis methodology utilized must be described and documented.
- The job analytic data must be presented in writing.
- The job analytic data should be collected from a variety of current sources (e.g., literature review, incumbent input, supervisor input).
- The sample size of SME participants in the data collection activities should be representative of the jobs within the job classification for which the job analysis is conducted, as well as of sufficient size to yield adequate data.
- Job tasks must be specified in terms of their importance or criticality and their frequency of performance, as well as a determination of the essential job tasks.

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continued...**

- Job tasks must be sufficiently detailed to derive the requisite KSAs.
- The important or critical KSAs required upon entry for successful job performance must be specified.
- The KSAs must be operationally defined.
- There must be a linkage (or documented relationship) between the essential tasks and the important, required-upon-entry KSAs.

It is incumbent upon agencies and departments to ensure that their job analysis studies comply with the aforementioned requirements to ensure the integrity and job-relatedness of their departmental civil service examination processes.

**OVERVIEW OF JOB
ANALYSIS**

Job analysis as a process is a systematic means of identifying the essential tasks and functions performed in a job (or job classification) and the knowledge, skills, abilities (KSAs), and personal characteristics that are required to perform those essential tasks and functions. Job analysis allows for the standardized collection and analysis of information about a job. Job analysis is a rational and judgmental process that is dependent upon the input of subject matter experts (SMEs) to identify the task and KSA requirements of a job.

Job analysis results in the identification and documentation of the essential functions of a job (or job classification), the specific task requirements of the job classification, and the KSAs required to perform those tasks and essential functions. Once conducted, a job analysis can provide data for a multitude of human resources activities surrounding a given job classification, including the following:

- classification and pay
- recruitment and selection
- training and development
- performance appraisal
- disability or return-to-work accommodation
- human resource/workforce planning

**OVERVIEW OF JOB ANALYSIS
continued...**

The discussion of job analysis contained herein will focus on utilizing job analysis data to identify and document the tasks and KSAs of a job to design, develop, and administer job-related selection procedures. Job analysis, as both a process and a product, is an integral part of the validation process of linking the development and use of specific selection procedures for a given job classification to the specific requirements of the job in terms of the qualifications (KSAs) required for successful job performance.

LEGAL AND PROFESSIONAL STANDARDS FOR JOB ANALYSIS

A number of legal and professional standards apply to the conducting of job analysis. The major sources of guidance addressing job analysis and its use as related to employment testing include the following:

- *The Uniform Guidelines on Employee Selection Procedures* (1978)
- *The Principles for the Validation and Use of Personnel Selection Procedures* (1987)
- *The Standards for Educational and Psychological Testing* (1999)
- *The Americans with Disabilities Act*
- Case law

The Uniform Guidelines on Employee Selection Procedures

The *Uniform Guidelines on Employee Selection Procedures* (hereafter referenced as the *Uniform Guidelines*) were adopted in 1978 in an effort to establish and document a set of uniform federal standards for employers for the use of selection procedures in the employment setting, as well as to address adverse impact, validation, and record-keeping requirements. The *Uniform Guidelines* were jointly adopted by the United States Civil Service Commission, the United States Department of Labor, the United States Department of Justice, and the Equal Opportunity Commission. The *Uniform Guidelines* outline requirements necessary for employers to legally defend employment decisions made on the basis of overall selection processes and the specific selection procedures that comprise those selection processes. The *Uniform Guidelines* pertain to any and all selection procedures that are used as the basis for any employment decision, including

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hiring, promotion, and transfer. The *Uniform Guidelines* provide the most definitive source of information regarding the conducting and use of job analysis.

While the *Uniform Guidelines* are not in and of themselves law, the courts have affirmed the provisions of the *Uniform Guidelines*. Through their reference in a number of judicial decisions the *Uniform Guidelines* have been identified by the courts as a source of technical information and have been given deference in litigation concerning selection issues.

For additional information, *Appendix D* in this manual provides a more complete summary of the *Uniform Guidelines*. The full text of the *Uniform Guidelines* is available in Title 29, Part 1607, of the Code of Federal Regulations (29 CFR 1607).

The Principles for the Validation and Use of Personnel Selection Procedures

The *Principles for the Validation and Use of Personnel Selection Procedures* (hereafter referenced as the *Principles*) were adopted by the Society for Industrial and Organizational Psychology (SIOP), a division of the American Psychological Association (APA). The third, and latest, edition of the *Principles* was published in August of 1987. These principles provide assessment professionals with guidelines for the evaluation, development, and use of testing instruments. As is the case with the *Uniform Guidelines*, the *Principles* pertain to any and all selection procedures that are used as the basis for any employment decision, including hiring, promotion, and transfer.

The *Principles*, like the *Uniform Guidelines*, are not in and of themselves legislation or law; however, through their reference in a number of judicial decisions they have been identified by the courts as a source of technical information and have been given deference in litigation concerning employment issues.

The *Principles* state that job analysis data should be used as the foundation for the development of any selection procedure. Further, the *Principles* acknowledge that a comprehensive job analysis is one of the best defenses against litigation. According

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to the *Principles*, job analysis data identifies the critical tasks for a job (or job classification) and the relevant KSAs that are required for the performance of those critical tasks. In addition, the *Principles* indicate that the critical job tasks and their corresponding KSAs should be used as the basis for developing selection procedures.

For additional information, *Appendix E* in this manual provides a more complete summary of the *Principles*.

The Standards for Educational and Psychological Testing

The current version of the *Standards for Educational and Psychological Testing* (hereafter referenced as the *Standards*) were adopted in December 1999 by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education. The *Standards* include guidance on the design and use of employment tests, as well as requirements for test validity and reliability.

As with the *Uniform Guidelines* and the *Principles*, the *Standards* are not in and of themselves legislation or law; however, they should be considered and followed, when appropriate, in the evaluation, development, and use of testing instruments.

For additional information, *Appendix F* in this manual provides a more complete summary of the *Standards*.

The Americans with Disabilities Act

The *Americans with Disabilities Act* (hereafter referenced as the ADA), which was signed into law on July 26, 1990, and became effective on July 26, 1992, prohibits discrimination against individuals with actual and/or perceived physical or mental disabilities. The ADA consists of five titles. Title I addresses the requirement that employers provide equal employment opportunities to qualified individuals with disabilities. Equal employment opportunities as addressed by the ADA include providing both reasonable accommodation for preemployment selection procedures and reasonable accommodation in performing the essential functions of a job.

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In order to comply with the requirements of the ADA, job analysis methods must identify the essential functions (i.e., tasks) of a job or job classification, as well as the corresponding KSAs required upon entry to successfully perform those job functions/tasks. Essential functions are identified by the ADA as the fundamental duties or tasks of a position. According to the ADA, a job function may be deemed essential for a number of reasons, including, but not limited to, the following:

- The function may be deemed essential because the reason the position exists is to perform that function.
- The function may be deemed essential due to the limited number of employees available among whom the performance of that job function can be assigned or distributed.
- The function may be highly specialized so that the incumbent in the position is hired specifically for his/her expertise or ability to perform the particular function.
- The function may be deemed essential due to the consequences of not requiring an incumbent to perform the particular function.
- The function may be deemed essential because of the terms of a collective bargaining agreement.

Case Law

Over the past several decades, a body of case law has emerged in the field of employment testing. In a number of cases, the courts have dealt with the concept of job analysis as a basic element in developing and defending the use of selection procedures. Several cases have emerged as hallmark cases regarding job analysis. Following are the major points related to job analysis cited by the courts in these cases:

United States v. Georgia Power, 474 F.2d 906 (5th Cir. 1973)
The validation strategy used by an organization (employer) to demonstrate the validity of a selection procedure must comply with the EEOC *Guidelines on Employee Selection Procedures* (1970). (The EEOC *Guidelines* were replaced in 1978 by the adoption of the *Uniform Guidelines*; therefore, compliance with the validation standard

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established in *United States v. Georgia Power* now requires adherence to the principles of validation studies outlined in the *Uniform Guidelines*.)

Albemarle Paper Company v. Moody, 422 U.S. 405 (1975)

As found in *United States v. Georgia Power*, job-relatedness (i.e., validity or the assertion that a selection procedure assesses candidate possession of those qualifications required for successful job performance upon entry to the job) must be established through a validation study as described in the *EEOC Guidelines on Employee Selection Procedures* (1970). (With the adoption of the *Uniform Guidelines* in 1978 compliance with the validation standard established in *Albemarle* now requires adherence to the principles of validation studies outlined in the *Uniform Guidelines*.)

In addition, it was noted that limiting job analysis to selected jobs within a larger, broader job classification, when those jobs are not representative of the full range of work performed in the larger, broader job classification, will result in an inadequate job analysis that will be insufficient in demonstrating the job-relatedness of subsequently developed selection procedures.

United States of America v. the State of New York, 21 FEP Cases 1286 (1979)

A job analysis must include the following elements, in accordance with the *Uniform Guidelines*, to be considered an adequate job analysis study:

- A study of job tasks, including a rating of each task's relative frequency and importance
- A study of KSAs, including the identification of those KSAs important for job success (i.e., performance of the identified job tasks)

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Guardians Association of New York City Police v. Civil Service Commission, 463 U.S. 582 (1983)

A job analysis must include precisely worded tasks that clearly delineate the work performed in the job, as well as documentation linking job tasks to required KSAs, in accordance with the *Uniform Guidelines*, in order for the job analysis to be considered an adequate, appropriate study.

Bouman v. Pitchess, 940 F. 2d, 1211 (1991)

A job analysis must conform to the requirements outlined in the *Uniform Guidelines* to be considered an adequate study and to serve as the legal basis of establishing the content validity of a selection process.

Michelle Legault v. Ralph aRusso, 842 F. Supp. 1479 (D.N.H. 1994)

To demonstrate the validity of a selection procedure(s), the employer must demonstrate that the selection procedure(s) accurately tests (or measures) required KSAs at a level equivalent to that which is required on the job. An initial step in determining the appropriate level at which to measure KSAs is the conducting of a job analysis study upon which to base the development of the selection procedure(s).

In summary, current legal and professional requirements for job analysis establish the standards upon which the State Personnel Board's policy is based.

**METHODS OF JOB
ANALYSIS**

There are a number of recognized methods and techniques for conducting job analysis that meet both professional and legal requirements. Common to all of these methods and techniques is their adherence to the *Uniform Guidelines*, as either stand-alone, complete job analysis methods or elements of data collection to be used in conjunction with other techniques to ensure compliance with the *Uniform Guidelines*. Employers and test developers have great flexibility in determining a job analysis methodology that will best meet the immediate selection or human resources need.

**METHODS OF JOB ANALYSIS
continued...**

The determination of the most appropriate job analysis method for a given situation is typically based on the consideration of a number of factors relevant to the situation, which may include, but would not necessarily be limited to, any number of the following considerations:

- An understanding of why the job analysis is being conducted and its purpose (e.g., as a basis for examination development and/or selection decisions, as a basis for classification activities, to develop employee training plans, to develop performance evaluation/measurement criteria, etc.)
- An understanding of the job analysis methodology to be used by both the examination analyst and the SME participants to ensure the proper completion of the job analysis study
- The type of job to be studied (e.g., occupational group, the level of the job within the organization)
- The size of job classification in terms of the number of incumbents and the number of supervisors
- The geographic locations of the positions in the classification (that is, how spread out is the job?)
- The specialty functions within the job classification (that is, are there pockets of expertise or functional specialties within the job classification?)
- The identification and use of SMEs, both incumbents and supervisors if practicable, who are thoroughly familiar with the job classification being studied in terms of the work tasks performed and the corresponding KSAs necessary to perform those work tasks
- The availability of SMEs (including both incumbents and supervisors) to participate in the job analysis study
- The willingness of SMEs to participate in the job analysis study
- The capability of the SMEs (e.g., their writing and analytical abilities) to provide expert information about the job classification

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- The commitment of the organization and the SMEs to the job analysis study
- The availability of previous job analytic data as a basis for the current study

The primary means of addressing many of the aforementioned issues is through communication – communication with the organization’s leadership regarding the need and value for job analysis, as well as communication with SME participants in the job analysis to ensure a clear understanding of the job analysis process. Providing an explanation of the purpose of the job analysis study and how the results of the study will be used (e.g., for examination development activities, as a basis for revising the classification specification, to develop training curricula and materials) will help to alleviate any fears that the organization and/or the SMEs may have and typically results in greater buy-in to the job analysis process.

The bottom line of job analysis for the examination analyst or selection professional is to ensure that the process utilized will adhere to recognized legal and professional standards and requirements, as well as yield adequate job analytic data necessary to design, develop, and administer job-related selection procedures. A thorough, properly conducted job analysis study will serve as the basis for developing job-related selection procedures. As such, job analysis represents the primary component of the documented validation evidence that links the development and/or use of specific selection procedures for a given job classification to the specific requirements of the job in terms of the qualifications (KSAs) required for successful job performance.

**CONDUCTING A
TASK-BASED JOB
ANALYSIS**

The task-based methodology for conducting job analysis discussed below incorporates the required elements of job analysis to ensure that the job analysis study meets recognized legal and professional standards. While there are a number of job analysis methodologies which may be used for any given job classification, the task-based methodology is the most linear, straightforward approach. In addition, for first-time job analysis studies, this methodology focuses on the critical aspects to be addressed and incorporated in a job analysis study. This manual section is focusing on the task-based method because this method has been affirmed in the courts, it complies with provisions of the Uniform Guidelines and professional standards, and it meets the minimum standards for job analysis.

The task-based methodology consists of the following eight elements, each defined and described:

Develop a list of job tasks

Using a variety of sources of information, the examination analyst develops and/or works in conjunction with SMEs to develop a list of task statements reflective of the work performed in the job/job classification. Such sources of information should include one or more of the following:

A. Literature Review

A literature review can be conducted to collect any written or printed materials relevant to the job tasks, such as position description documents, previously used examination bulletins, previously conducted job analyses for the target job classification and/or similar job classifications, job analyses conducted by other organizations (or employers) for the target job classification and/or similar job classifications, classification specification documents, and the U.S. Department of Labor's O*NET, a database of job requirement and worker requirement statements, which has replaced the Dictionary of Occupational Titles

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continued...****B. On-Site Meetings/Discussions**

On-site meetings/discussions with incumbents and first-level supervisors can be held to observe and discuss work tasks performed by incumbents in the job classification. In addition, a number of job audit/interview techniques could be used to focus the meetings/discussions on the identification of work tasks, including the following:

- The *job audit/interview* method calls for the examination analyst to meet with SMEs (which can include both incumbents and supervisors) to discuss the job classification and identify the job tasks performed. Such SME meetings/interviews may be conducted individually with SMEs or in group sessions. Depending on the SME participants, it may be beneficial when conducting group sessions to conduct separate meetings/interviews with the incumbent group and the supervisor group to ensure that the incumbents can freely provide job-specific information without feeling inhibited by the presence of supervisors. *Attachment A* provides a sample job audit form that can be used for either individual job audit/interviews or group interviews.
- The *work observation* method involves the examination analyst observing incumbents performing on the job and recording job tasks performed, as well as recording any other job-specific data related to job performance as he/she observes incumbent job performance. It should be noted that the *work observation* method is restricted to capturing only those work behaviors observed during the work observation period. Thus, it may be desirable to utilize another data collection method (such as the *critical incident* method described in the next section below) in addition to the work observation to ensure the collection of complete data regarding the tasks performed in the job classification. *Attachment B* provides a sample work observation form.

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C. Questionnaires

Questionnaires sent or delivered to incumbents and first-level supervisors can be used to elicit information regarding work tasks performed by incumbents on the job. There are several types of questionnaires that may be used, including the following:

- The *open-ended questionnaire* method requires SMEs to write out the tasks performed on the job. This questionnaire method requires extensive writing on the part of the SMEs and is typically time consuming for the SMEs to complete. This method should be used only in those instances where the SMEs have the writing skills necessary for proper completion of the questionnaire, as well as the available time. *Attachment C* provides a sample open-ended questionnaire.
- The *diary* method requires SMEs to record the job tasks they complete in a given period of time. The *diary* method is restricted to detailing only those job tasks that the incumbent actually completes during the reporting period. Thus, as with the work observation method described previously, it may be desirable to utilize another data collection method (such as the *critical incident* method described below) in addition to the diary to ensure the collection of complete data regarding the tasks performed in the job classification. *Attachment D* provides a sample diary.
- The *checklist* method involves the examination analyst preparing an initial list of possible job tasks that may be performed and asking SMEs to indicate which of the tasks are actually performed by incumbents in the job classification. The checklist is typically developed based upon the results of a literature review or other information gathering technique. *Attachment E* provides a sample checklist.
- The *critical incident* method details the critical incidents of the job that distinguish the better performing incumbents from lesser performing incumbents. The critical incidents may be collected via questionnaire format directly from the SMEs or through interviews with the SMEs. In some instances, critical incidents may only be collected from

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supervisor SMEs if there is a concern about the quality of data that may be provided by incumbent SMEs. In addition, the critical incident method may be used in conjunction with other data collection methods, such as the *work observation* and *diary* methods described previously. *Attachment F* provides a sample critical incident form.

It is the responsibility of the examination analyst to ensure that the most appropriate data collection methods are utilized to develop the list of job tasks. The examination analyst is not limited to the data collection methods described above as the only sources of data regarding job tasks performed and may utilize other sources of information deemed appropriate.

Once a comprehensive task list is developed, the examination analyst reviews the task statements with SMEs to refine the wording of the statements and to ensure that the task statements fully and accurately reflect the work performed in the job classification and are detailed enough to allow for development of KSAs.

In reviewing the task statements, special attention should be paid to ensuring that the each task statement reflects a specific work task. Task statements should fully address the following aspects of work behaviors:

- Performs what action (verb)
- To whom or to what (object)
- To produce what (expected output)
- Using what tools, equipment, aids, or processes
- With what instruction or direction

Rate the job tasks

Once the task statements are developed and finalized, SMEs rate the task statements, indicating the importance and frequency of performance for each task. The rating process may utilize independent SME ratings, whereby the SMEs individually provide ratings for each task. The independent ratings are then analyzed to calculate mean ratings for each task. Independent ratings work well in situations with larger SME groups or when it is not possible

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to have the SMEs come together to provide consensus ratings. Conversely, the rating process may utilize consensus ratings, whereby a group of SMEs reach a consensus on the ratings assigned to each task. Consensus ratings should be used when the SME group is relatively small (e.g., six or fewer individuals).

Whether using independent or consensus ratings, the rating process must address both the importance and the frequency of performance for each task. Thus, typically, two mutually exclusive rating scales are utilized – one addressing the importance of the task to job performance, and the second addressing the frequency with which the task is performed. In addition, pursuant to the ADA, the task rating process must identify the essential functions of the job classification. *Attachment G* provides sample task rating scales that meet the requirements of the ADA, as well as provide both importance and frequency ratings.

Using the ratings provided by the SMEs, those tasks that are rated as important, essential job tasks are deemed to be the important tasks of the job classification.

Develop a list of KSAs required for performance of the identified job tasks

Using a variety of sources of information, the examination analyst develops and/or works in conjunction with SMEs to develop an initial list of KSA statements reflective of the qualifications required for successful performance in the job classification. Such sources of information are typically the same sources used in the development of the task list (as discussed on pages 2200.13 through 2200.16), including:

- A. A review of the literature and other relevant background information
- B. On-site meetings/discussions with incumbents and first-level supervisors, including the *job audit/interview* and *work observation* methods
- C. The use of questionnaires sent or delivered to incumbents and first-level supervisors, including the *open-ended questionnaire* method, the *diary* method, the *checklist* method, and the *critical incident* method

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- D. An additional technique, which can only be used for the development of KSAs, is inference or logical deduction to identify possible KSAs that would support task performance.

Attachments A through F provide samples of data collection tools that may be used to develop the list of KSAs.

Once the KSA list is developed, the examination analyst reviews the KSA statements with SMEs to refine the wording of the statements and to ensure that the KSA statements are operationally defined and accurately reflect the qualifications of successful job performance.

As described in the *Uniform Guidelines*, each KSA statement must be operationally defined such that the following attributes of the KSA are fully addressed in the KSA statement:

- What (Knowledge of what, Skill at what, Ability to do what)
- To what effect or in what context is the KSA used
- To what degree of accuracy or at what level is the KSA needed (How much of the KSA is needed – basic level, advanced level?)

Rate the KSAs

Once the KSA statements are developed and finalized, SMEs rate the KSA statements, indicating the importance of each KSA to successful job performance and the degree to which possession of the KSA is required upon entry to the job classification (i.e., required day one of employment) for successful job performance. The rating process may utilize independent ratings or consensus ratings, as described on page 2200.16 and 2200.17.

The rating process for each KSA must address both importance and whether required upon entry. Typically, two mutually exclusive rating scales are utilized – one addressing the importance of the KSA for successful job performance, and the second addressing the degree to which possession of the KSA is required upon entry to the job classification. *Attachment H* provides sample KSA rating scales.

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Using the ratings provided by the SMEs, those KSAs that are rated as *both* important for successful job performance and required upon entry to the job classification can be considered further in the development of any selection process.

Link the identified job tasks and the KSAs

The SMEs determine the relationship between each important, required upon entry KSA and each of the essential job tasks. The linkage process may utilize independent ratings or consensus ratings, as described on pages 2200.16 and 2200.17.

Attachment I provides sample linkage rating scales, and *Attachment J* provides a sample task/KSA linkage matrix for the SMEs' use in recording their linkage ratings.

Based upon the linkage ratings of the SMEs, those KSAs that link to at least one essential task of the job are deemed to be the qualifications required for successful job performance and, as such, are suitable for consideration (i.e., measurement or assessment) with a selection procedure.

Document the job analysis study

The examination analyst documents each of the steps of the job analysis process, as well as background information relative to the conducting of the job analysis study. The following areas of the study should be documented:

- Background information, including the job classification studied; the dates of the study; the name and title of the analyst conducting the study; and, the names, job titles, and division/work units of the SMEs participating in the study. Further, the analyst may choose to include additional information relevant to the job analysis study, such as the intended use(s) of the job analytic data, and/or the results of previously conducted job analyses for the target job classification.
- Task information, including the data collection methods used to develop the list of tasks; a record of the finalized list of tasks and the SMEs who participated in the editing/finalizing process; the task rating scales and the

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SMEs who provided the task ratings; the task ratings resulting from the SMEs' rating of the tasks; and, details of how the task rating scales were used in terms of scale cut-offs which may have been applied and/or the resulting elimination of any tasks as non-essential.

- KSA information, including the data collection methods used to develop the list of KSAs; a record of the finalized list of KSAs and the SMEs who participated in the editing/finalizing process; the KSA rating scales and the SMEs who provided the KSA ratings; the KSA ratings resulting from the SMEs' rating of the KSAs; and, details of how the KSA rating scales were used in terms of scale cut-offs that may have been applied and/or the resulting elimination of any KSAs as either non-important to successful job performance or not required upon entry to the job classification.
- Task/KSA linkage information, including linkage rating scale and the SMEs who provided the linkage ratings; the linkage ratings resulting from the SMEs' linking the important, required upon entry KSAs to the essential job tasks; and, details of how the linkage rating scale was used in terms of a scale cut-off which may have been applied and/or the resulting elimination of any KSAs as not being required to successfully perform one or more job tasks.

Note

When conducting a job analysis study using the task-based methodology described herein, the examination analyst may choose to conduct steps a number of steps simultaneously to better utilize his/her own time, as well as maximize SME resources and availability. For instance, the development of the task list and the KSA list may be completed as one step, and the rating of the task statements and the KSA statements may also be conducted as one step. *Attachment K* denotes the elements described herein, which are typically included in a task-based job analysis.

The task-based methodology may be modified to better fit specific situations and circumstances for conducting a job analysis study,

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provided that such modifications do not preclude the methodology from adhering to recognized legal and professional standards.

Appendix H provides a sample copy of a documented job analysis study conducted using the task-based methodology, including the aforementioned elements, as well as additional information pertinent to the sample study documented (e.g., scale reliability values and statistical analysis of the job analytic data).

**AVAILABLE
RESOURCES**

A multitude of resources are available to agencies and departments to assist in conducting job analyses for all types of job classifications at all levels within the organization, as well as documenting the importance of job analysis in the conducting employment testing activities.

Appendix B in this manual provides a listing of foundational books and publications focusing on employment testing and the assessment profession, which include discussions of job analysis and the purpose of job analytic data in the design and administration of selection procedures. Of particular note are the *Uniform Guidelines on Employee Selection Procedures* (29 CFR 1607) that specifically address the role of job analysis in establishing the validity (i.e., job-relatedness) of selection procedures.

Agencies and departments are encouraged to network with one another, as well as with other agencies and organizations in both the public and private sector, to share ideas and established practices related to the conducting of job analyses. In addition, through the use of professional networking, agencies and departments can share job analyses and utilize existing job analytic data when conducting new studies. *Appendix C* in this manual provides a listing of human resources and assessment-related professional organizations.

State Personnel Board staff is available to assist agencies and departments in identifying job analysis methodologies and strategies appropriate for a variety of job classifications in a variety of work settings. Additionally, the State Personnel Board's Technical Training Program offers a two-day training course on

**AVAILABLE
RESOURCES
continued...**

job analysis, which provides a practical application of the theoretical and legal requirements of job analysis. Information regarding the job analysis class and the Technical Training Program is available on the State Personnel Board's website at www.spb.ca.gov.

For a more detailed discussion of job analysis, a number of publications and articles in the professional literature address job analysis.

ATTACHMENTS

ATTACHMENT A: Sample Job Audit Form

Job Audit Form

Subject Matter Expert Information	
Name of Interviewee	Department
Current Civil Service Classification	Division/Work Unit
Working Title <i>(if different)</i>	Work Location
Telephone Number	Immediate Supervisor's Name and Classification
Length of Time in Current Classification	<input type="checkbox"/> Incumbent <input type="checkbox"/> Supervisor
Name of Interviewer	Date and Location of Interviewer

1. What tasks make up a typical day for you/a *(name of classification)*?
 (Describe a typical day or series of tasks that are indicative of a routine day for you/a *(name of classification)*.)

2. Of these tasks, which are the *most important*?

3. Which tasks are performed *most frequently*?

4. Which tasks must an incumbent be able to perform *at entry* to your/a (*name of classification*)'s job?

5. What knowledge, skills, and abilities are needed to perform the critical tasks of your/a *(name of classification)*'s job?

Knowledge

Skills

Abilities

6. In general, how do your job duties differ from those in the classification just below yours? (For supervisors: How do you perceive the job duties of a *(name of classification)* as different from the next lowest classification?)

7. In general, how do your job duties differ from those in the classification just above yours? (For supervisors: How do you perceive the job duties of a *(name of classification)* as different from the next highest classification?)

8. What manuals and/or reference materials are most important in your/a (*name of classification*)'s job, and when are such manuals and/or reference materials used?

Departmental manuals and/or reference materials

Other manuals and/or reference materials

9. What office equipment, software programs, and other equipment are used to complete your/a (*name of classification*)'s job duties?

Office Equipment

Personal computer

Telephone

Calculator

Fax machine

Copy machine

Camera (specify type: _____)

Scanner

Other: _____

Other: _____

Other: _____

Software

- Microsoft Word or WordPerfect (or other word processing software);
specify: _____
- Microsoft Excel (or other spreadsheet software);
specify: _____
- SPSS or SAS (or other statistical analysis software);
specify: _____
- Microsoft Access (or other database software);
specify: _____
- Microsoft PowerPoint (or other presentation software);
specify: _____
- Microsoft Outlook or GroupWise (or other electronic mail software);
specify: _____
- Web Browser (such as Internet Explorer, Netscape);
specify: _____
- Other: _____
- Other: _____

Other Equipment

- _____
- _____
- _____
- _____
- _____
- _____
- _____

10. If developed, review preliminary list of task and KSA statements with SME.
(Have SME reword/modify draft statements as necessary and indicate which tasks are performed and which KSAs are required in the (name of classification) classification.)

ATTACHMENT B: Sample Work Observation Form**Work Observation Form**

Subject Matter Expert Information	
Name of Interviewee	Department
Current Civil Service Classification	Division/Work Unit
Working Title (<i>if different</i>)	Work Location
Telephone Number	Immediate Supervisor's Name and Classification
Length of Time in Current Classification	<input type="checkbox"/> Incumbent <input type="checkbox"/> Supervisor
Name of Interviewer	Date and Location of Interview

1. List the Work Behaviors/Tasks Observed:

2. Identify the Physical Working Conditions:

(Physical location, noise level, weather conditions, etc.)

3. Record any Materials, Equipment, Tools, Manuals, and/or Reference Materials Used:**4. Degree of Supervision Received:**

(How is work assigned, reviewed, and approved? What is the frequency and duration of direct supervision?)

5. Interaction with Others:

(With whom does the incumbent interact, including departmental employees, personnel from other state agencies/departments, consultants, vendors, and/or the public? What is the purpose of the interaction?)

6. Acquisition of Job Skills:

(How does an incumbent typically learn how to do this job?)

7. Identify the Requisite Knowledge, Skills, and Abilities:

(What knowledge, skills, and abilities are needed to perform the job?)

8. List any Requisite Physical Requirements:

(What physical requirements must an incumbent possess to perform the job?)

ATTACHMENT C: Sample Job Questionnaire

Job Questionnaire

Subject Matter Expert Information	
Name of Interviewee	Department
Current Civil Service Classification	Division/Work Unit
Working Title <i>(if different)</i>	Work Location
Telephone Number	Immediate Supervisor's Name and Classification
Length of Time in Current Classification	<input type="checkbox"/> Incumbent <input type="checkbox"/> Supervisor

The purpose of this questionnaire is to identify the tasks of the *(name of classification)* classification as used by Department XYZ and the knowledge, skills, and abilities (KSAs) that are required for successful job performance within the *(name of classification)* classification. This information is necessary to ensure that examination processes for *(name of classification)* are job-related and comply with recognized legal and professional standards.

Information about the specific tasks of the job and the KSAs required to perform these tasks is being collected from individuals, such as yourself, who are very familiar with the *(name of classification)* classification. Please take the time to provide thorough, well-thought-out responses to each item in the questionnaire.

If you have any questions regarding the completion of this questionnaire, please contact *(name)* at *(phone number)*.

Thank you for taking the time to complete this questionnaire!

Responsibility Statements:

Most jobs have three to five major areas of responsibility assigned to them. For example, the major areas of responsibility for a Staff Services Analyst may include program evaluation and planning; systems and procedures development; budget planning and analysis; and/or report preparation.

Please summarize the top three to five major areas of responsibility assigned to your position.

Major Area of Responsibility	
A	
B	
C	
D	
E	

Task Statements:

Describe the specific tasks performed within each major area of responsibility listed on page 2 of this questionnaire. For example, a specific task listed under program evaluation and planning may be: *Plan comprehensive projects involving multiple steps to be completed over a significant amount of time (e.g., planning a validation study, planning a conference).*

In describing the tasks performed, please be sure to (1) **describe** only the work performed by the (*name of classification*) classification, (2) **explain** words which can have broad meaning such as manage and evaluate, and (3) **define** all abbreviations, jargon, and acronyms.

Responsibility A:**Task 1****Task 2****Task 3****Task 4****Task 5**

Responsibility B:

Task 1

Task 2

Task 3

Task 4

Task 5

Responsibility C:

Task 1

Task 2

Task 3

Task 4

Task 5

Responsibility D:

Task 1

Task 2

Task 3

Task 4

Task 5

Responsibility E:

Task 1

Task 2

Task 3

Task 4

Task 5

Knowledge, Skills, and Abilities:

Please identify the knowledge, skills, and abilities (KSAs) that are needed to perform the tasks of the *(name of classification)* classification. Be specific about the type and level of the KSAs required.

Knowledge Example: *Knowledge of basis statistics (e.g., mean, standard deviation, variance) to calculate and interpret data and conduct statistical analyses.*

Skill Example: *Skill to establish and maintain cooperative relations with a variety of individuals, including departmental employees, personnel from other state agencies/departments, consultants, vendors, and/or the public.*

Ability Example: *Ability to communicate verbally in stressful situations, such as when dealing with angry or hostile individuals or under emergency conditions.*

Knowledge of:	
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Skill to:	
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Ability to:	
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Physical Characteristics:

Please identify any specific physical characteristics required to perform the tasks of the *(name of classification)* job. For example, a physical characteristic for a Janitor job may be: *Ability to lift boxes of supplies weighing up to 25 pounds.*

Physical Characteristics:	
1.	
2.	
3.	

License, Registration, and/or Certification Requirements:

The current class specification for *(name of classification)* identifies the following license, registration, and/or certification requirements. Please indicate which of these are **required** in your position and list any additional license, registration, and/or certification requirements.

License/Registration/Certificate
<input type="checkbox"/> <i>(License/Registration/Certificate #1 from class specification)</i>
<input type="checkbox"/> <i>(License/Registration/Certificate #2 from class specification)</i>
<input type="checkbox"/> <i>(License/Registration/Certificate #3 from class specification)</i>
<input type="checkbox"/> <i>(License/Registration/Certificate #4 from class specification)</i>
<input type="checkbox"/> _____

ATTACHMENT D: Sample Job Diary

Job Diary

Subject Matter Expert Information	
Name of Interviewee	Department
Current Civil Service Classification	Division/Work Unit
Working Title <i>(if different)</i>	Work Location
Telephone Number	Date Completed
Length of Time in Current Classification	<input type="checkbox"/> Incumbent <input type="checkbox"/> Supervisor

The purpose of this diary is to identify the job tasks or activities that are performed in the *(name of classification)* classification at Department XYZ. Please provide the following information relative to your position as a *(name of classification)*:

- A. Record all of the activities you have performed today in the space provided.
- B. Provide the appropriate code for the approximate amount of time you spent on each activity. Do not feel that the time must add up to eight hours. We are more interested in the relative amount of time spent on each activity.
- C. Rate each activity on its *importance* using the following scale:
 - 1. **Not important** – Improper/incomplete performance results in very few, if any, problems.
 - 2. **Slightly important**
 - 3. **Important** – Improper/incomplete performance results in delays, costs, and/or health/safety concerns which are moderately damaging to the department/division/work unit.
 - 4. **Very Important**
 - 5. **Critical** - Improper/incomplete performance results in delays, costs, and/or health/safety concerns which are substantially damaging to the department/division/work unit.

ATTACHMENT E: Sample Job Checklist

Job Checklist

Subject Matter Expert Information	
Name of Interviewee	Department
Current Civil Service Classification	Division/Work Unit
Working Title <i>(if different)</i>	Work Location
Telephone Number	Immediate Supervisor's Name and Classification
Length of Time in Current Classification	<input type="checkbox"/> Incumbent <input type="checkbox"/> Supervisor

The purpose of this checklist is to identify the job tasks that are performed in the *(name of classification)* classification in Department XYZ, as well as to identify the knowledge, skills, and abilities (KSAs) that are required to perform those tasks. This information is necessary to ensure that examination processes for *(name of classification)* are job-related and comply with recognized legal and professional standards.

Information about the specific tasks of the job and the KSAs required to perform these tasks is being collected from individuals, such as yourself, who are very familiar with the *(name of classification)* classification. Please take the time to provide thorough, well-thought-out responses to each item in the questionnaire.

If you have any questions regarding the completion of this questionnaire, please contact *(name)* at *(phone number)*.

Thank you for taking the time to complete this questionnaire!

Task Statements:

This section of the checklist includes tasks which may be performed by incumbents in the *(name of classification)* classification. If you are a *(name of classification)*, please indicate, by checking Yes or No, whether you perform each of the listed tasks. If you are a supervisor of employees in the *(name of classification)* classification, please indicate, by checking Yes or No, whether any of the employees you supervise perform the listed tasks.

Task Statements	Yes	No
1. Work in an environment which routinely requires a calm, courteous, and tactful approach while handling problems or complaints.	☑	☑
2. Communicate verbally in stressful situations (e.g., dealing with angry or hostile individuals, handling multiple requests for information simultaneously, defending a conflicting opinion or approach).	☑	☑
3. Prepare memos, letters, and correspondence documents to communicate with peers, supervisors, outside agency personnel, and the public.	☑	☑
4. Interpret complex or technical information and materials (e.g., trade journals, academic journals, technical reports, scientific literature, work procedures).	☑	☑
5. Translate complex or technical information and materials (e.g., trade journals, academic journals, technical reports, scientific literature, work procedures).	☑	☑
6. Calculate percentages, ratios, and proportions to solve algebraic equations.	☑	☑

Please list any other tasks which are performed by incumbents in the *(name of classification)* classification and have not been included on this checklist.

- 1.
- 2.
- 3.
- 4.
- 5.

Knowledge, Skills, and Abilities:

This section of the checklist includes knowledge, skills, and abilities (KSAs) which may be needed to perform the tasks of the *(name of classification)* classification. Please indicate, by checking Yes or No, whether each KSA is necessary for successful job performance.

KSA Statements	Yes	No
1. Knowledge of proper spelling, grammar, punctuation, and sentence structure for the English language to ensure that prepared and/or reviewed written materials are complete, succinct, and free of writing errors.	☑	☑
2. Knowledge of basis statistics (e.g., mean, standard deviation, variance) to calculate and interpret data and conduct statistical analyses.	☑	☑
3. Skill to clearly and concisely explain, in writing, the contents of technical materials, such as trade journals, policies, or procedures, to audiences with varying levels of expertise.	☑	☑
4. Skill to verbally summarize a variety of facts, statistics, and/or data clearly and concisely in an impromptu manner, adjusting the level and tone of the message appropriately to be understood by the respective audience.	☑	☑
5. Ability to communicate verbally in stressful situations, such as when dealing with angry or hostile individuals or under emergency conditions.	☑	☑
6. Ability to recognize the sensitive nature and/or political ramifications of a situation.	☑	☑

Please list any other KSAs that are needed for successful job performance in the *(name of classification)* classification and have not been included on this checklist.

- 1.
- 2.
- 3.
- 4.
- 5.

ATTACHMENT F: Sample Critical Incident From

Critical Incident Form

Please use this page to describe *critical incidents* that typically occur during a work year that did not transpire during (*name the data collection technique, i.e. - completion of the job diary, the job audit, or the work observation*). A *critical incident* is an activity that is fundamental to the job and cannot be delegated to others. Additionally, a *critical incident* is an activity in which improper/incomplete performance results in delays, costs, and/or health/safety concerns to the department/division/work unit.

Activity	Time Spent (in hours)

Activity	Time Spent (in hours)

Activity	Time Spent (in hours)

Activity	Time Spent (in hours)

Activity	Time Spent (in hours)

Activity	Time Spent (in hours)

Activity	Time Spent (in hours)

ATTACHMENT G: Sample Task Rating Scales

The following are sample rating scales intended to demonstrate the type of task ratings required in conducting a job analysis; however, the scales presented are examples only. There are a number of other scales that would meet the rating requirements outlined in *Section 2200*.

Rating the importance of task performance

Sample Scale 1

Importance scale:
(State Personnel Board)

-
- 0 Does Not Apply** This task is not an essential function of the job, **or** is not performed on the job, **or** is trivial to successful job performance.
 - 1 Moderately Important** Satisfactory performance of this essential task is MODERATELY IMPORTANT to successful job performance.
 - 2 Very Important** Satisfactory performance of this essential task is VERY IMPORTANT to successful job performance.
 - 3 Critical** Satisfactory performance of this essential task is CRITICAL to successful job performance.
-

Interpreting rating data from *Importance Scale*

By scale definition, the tasks identified as essential functions of the job/job classification are those tasks that receive scale ratings of at least 1. Tasks that are rated 0 are either not performed on the job, or if they are performed on the job, (1) they are not considered essential functions of the job, or (2) they are trivial to successful job performance. To comply with provisions of the ADA, only those tasks that are identified as essential functions of the job/job classification should be considered in the selection-related activities.

When using an independent rating approach with multiple SMEs providing independent ratings for each task, those tasks that receive a rating of 1 or greater from at least 50 percent of the respondents can be considered essential functions of the job/job classification.

When using a consensus rating approach, those tasks rated 1, 2, or 3 can be considered essential functions of the job/job classification.

Sample Scale 2

Criticality of the Task scale:
(WRIPAC, 1993)

- 0** This task is NOT PERFORMED on the job or is TRIVIAL to acceptable performance on the job.
- OR
- The task is a **non-essential** function of the job.
- 1** Satisfactory performance of this task is IMPORTANT to acceptable performance on the job, and this task is an **essential** function of the job.
- 2** Satisfactory performance of this task is CRUCIAL to overall acceptable performance of the job, and this task is an **essential** function of the job.
-

Interpreting rating data from *Criticality of the Task Scale*

By scale definition, the tasks identified as essential functions of the job/job classification are those tasks that receive scale ratings of at least 1. Tasks that are rated 0 are either not performed on the job, or if they are performed on the job, they are not considered essential functions of the job. To comply with provisions of the ADA, only those tasks that are identified as essential functions of the job/job classification should be considered in the selection-related activities.

When using an independent rating approach with multiple SMEs providing independent ratings for each task, those tasks which receive a mean rating of .5 or greater can be considered essential functions of the job/job classification.

When using a consensus rating approach, those tasks rated 1 or 2 can be considered essential functions of the job/job classification.

Rating the frequency of task performance

Sample Scale 1

Frequency of performance scale:

(State Personnel Board)

-
- 0 Does Not Apply** This task is not an essential function of the job, **or** this task is not performed on the job.
 - 1 Rarely** This essential task is RARELY performed compared to other tasks performed on the job.
 - 2 Occasionally** This essential task is OCCASIONALLY performed compared to other tasks performed on the job.
 - 3 Frequently** This essential task is FREQUENTLY performed compared to other tasks performed on the job.
-

Interpreting rating data from *Frequency of performance scale*

By scale definition, the tasks “most frequently performed” are those with scale ratings of 2 or 3, meaning that when performed on the job, the tasks are performed at least occasionally.

When using an independent rating approach with multiple SMEs providing independent ratings for each task, those tasks which receive a mean rating of 1.5 or greater can be considered the “most frequently performed” tasks of the job/job classification.

When using a consensus rating approach, those tasks rated 2 or 3 can be considered the “most frequently performed” tasks of the job/job classification.

Sample Scale 2

Relative Time Spent scale:
(WRIPAC, 1993)

-
- 0** Task is NOT PERFORMED at all on the job.
 - 1** Task is performed RARELY on the job.
 - 2** Task is performed OCCASSIONALLY on the job.
 - 3** Task is performed FREQUENTLY on the job.
-

Interpreting rating data from *Relative Time Spent* scale

By scale definition, the tasks “most frequently performed” are those with scale ratings of 2 or 3, meaning that when performed on the job, the tasks are performed at least occasionally.

When using an independent rating approach with multiple SMEs providing independent ratings for each task, those tasks which receive a mean rating of 1.5 or greater can be considered the “most frequently performed” tasks of the job/job classification.

When using a consensus rating approach, those tasks rated 2 or 3 can be considered the “most frequently performed” tasks of the job/job classification.

ATTACHMENT H: Sample KSA Rating Scales

The following are sample rating scales intended to demonstrate the type of KSA ratings required in conducting a job analysis; however, the scales presented are examples only. There are a number of other scales that would meet the rating requirements outlined in *Section 2200*.

Rating the importance of the KSA**Sample Scale 1**

Importance scale:
(State Personnel Board)

- 0 Does Not Apply** Possession of this knowledge, skill, or ability is NOT REQUIRED for successful job performance.
 - 1 Desirable** Possession of this knowledge, skill, or ability is only HELPFUL or DESIRABLE but not required for successful job performance.
 - 2 Important** Possession of this knowledge, skill, or ability is IMPORTANT for successful job performance.
 - 3 Critical** Possession of this knowledge, skill, or ability is CRITICAL for successful job performance.
-

Interpreting rating data from *Importance Scale*

By scale definition, the “most important” KSAs are those with scale ratings of 2 or 3, meaning that possession of those KSAs is important to overall satisfactory job performance (that is, possession of the KSAs is important to an individual’s capability to perform satisfactorily in the job/job classification). Therefore, only those KSAs that are identified as important requirements for successful job performance should be considered in selection-related activities.

When using an independent rating approach with multiple SMEs providing independent ratings for each KSA, those KSAs that receive a mean rating of 1.5 or greater can be considered important requirements for successful job performance.

When using a consensus rating approach, those KSAs rated 2 or 3 can be considered important requirements for successful job performance.

Rating the importance of the KSA

(continued)

Sample Scale 2

Criticality of the KSA:
(WRIPAC, 1993)

- 0** Possession of the knowledge, skill, or ability is NOT RELATED to overall satisfactory job performance.
 - 1** Possession of the knowledge, skill, or ability is HELPFUL or DESIRABLE for overall satisfactory job performance.
 - 2** Possession of the knowledge, skill, or ability is IMPORTANT to overall satisfactory job performance.
 - 3** Possession of the knowledge, skill, or ability is ESSENTIAL to overall satisfactory job performance.
-

Interpreting rating data from *Criticality of the KSA scale*

By scale definition, the “most important” KSAs are those with scale ratings of 2 or 3, meaning that possession of those KSAs is important to overall satisfactory job performance (that is, possession of the KSAs is important to an individual’s capability to perform satisfactorily in the job/job classification). Therefore, only those KSAs that are identified as important requirements for successful job performance should be considered in selection-related activities.

When using an independent rating approach with multiple SMEs providing independent ratings for each KSA, those KSAs that receive a mean rating of 1.5 or greater can be considered important requirements for successful job performance.

When using a consensus rating approach, those KSAs rated 2 or 3 can be considered important requirements for successful job performance.

Rating the KSA as required upon entry**Sample Scale 1**

Expected at Entry to the Job scale:
(State Personnel Board)

- 0 None/Trivial** Possession of NONE or a TRIVIAL amount of this knowledge, skill, or ability is expected upon entry to the job.
 - 1 Some** Possession of SOME amount of this knowledge, skill, or ability is expected upon entry to the job.
 - 2 Most** Possession of MOST amount of this knowledge, skill, or ability is expected upon entry to the job.
 - 3 All** Possession of ALL amount of this knowledge, skill, or ability is expected upon entry to the job.
-

Interpreting rating data from *Expected at Entry to the Job scale*

By scale definition, the KSAs “expected at entry to the job” (or in other words, expected upon appointment or day one on the job) are those with scale ratings of 2 or 3, meaning that when appointed, the individual is expected to possess at least “most” of the KSA upon entry to the job/job classification. Only those KSAs that are identified as expected upon entry to the job/job classification should be considered in examination-related activities.

When using an independent rating approach with multiple SMEs providing independent ratings for each KSA, those KSAs that receive a mean rating of 1.5 or greater can be considered as “required upon entry” to the job/job classification.

When using a consensus rating approach, those KSAs rated 2 or 3 can be considered as “required upon entry” to the job/job classification.

Rating the KSA as required upon entry

(continued)

Sample Scale 2

Expected at Entry:
(WRIPAC, 1993)

- 0** Possession of NONE or a TRIVIAL amount of the knowledge, skill, or ability is expected upon entry to the job.
 - 1** Possession of SOME of the knowledge, skill, or ability is expected upon entry to the job.
 - 2** Possession of MOST of the knowledge, skill, or ability is expected upon entry to the job.
 - 3** Possession of ALL of the knowledge, skill, or ability is expected upon entry to the job.
-

Interpreting rating data from *Expected at Entry* scale

By scale definition, the KSAs “expected at entry to the job” (or in other words, expected upon appointment or day one on the job) are those with scale ratings of 2 or 3, meaning that when appointed, the individual is expected to possess the KSA upon entry to the job/job classification. Only those KSAs that are identified as expected upon entry to the job/job classification should be considered in selection-related activities.

When using an independent rating approach with multiple SMEs providing independent ratings for each KSA, those KSAs that receive a mean rating of 1.5 or greater can be considered as “required upon entry” to the job/job classification.

When using a consensus rating approach, those KSAs rated 2 or 3 can be considered as “required upon entry” to the job/job classification.

Rating the Relationship of Possession of the KSA to Job Performance

Sample Scale

Relationship to Job Performance scale:

(State Personnel Board)

-
- 0 No Observable Relationship** This knowledge, skill, or ability is not required to perform the job, **or** possession of more of this knowledge, skill, or ability (beyond the minimal level required) **does not** result in better job performance.
- 1 Observable Relationship** Possession of more of this knowledge, skill, or ability (beyond the minimal level required) **does** result in better job performance.
-

Interpreting rating data from *Relationship to Job Performance* scale

By scale definition, a scale rating of 1 means that possession of more of a particular KSA results in better (or increased) job performance. This scale is used to document the job-related need for increased levels of a particular KSA. Ranking candidates on the basis of test scores or scores in an examination process should be done only when increased amounts of those KSAs being assessed in the examination process are determined to result in better job performance.

When using an independent rating approach with multiple SMEs providing independent ratings for each KSA, those KSAs that receive a mean rating of .5 or greater can be considered as “related to job performance.”

When using a consensus rating approach, those KSAs rated 1 can be considered as “related to job performance.”

ATTACHMENT I: Sample Task/KSA Linkage Scales

The following are sample rating scales, each intended to demonstrate the type of task/KSA linkage ratings required in conducting a job analysis; however, the scales presented are examples only. There are a number of other scales that would meet the rating requirements outlined in *Section 2200*.

Rating the task/KSA relationship**Sample Scale 1**

Task/KSA Relationship:
(State Personnel Board)

- 0** No Relationship – This KSA is NOT NEEDED to perform this task.
 - 1** Relationship – This KSA is REQUIRED to perform this task.
-

Interpreting rating data from *Task/KSA Relationship scale*

By scale definition, those KSAs that are required to complete specific job tasks are those with a scale rating of 1, meaning that possession of those KSAs is necessary (or required) in order for an individual to successfully complete one or more specific tasks of the job/job classification. Therefore, only those KSAs that link to at least one job task can be considered to be job-related requirements, and only job-related requirements should be considered in selection-related activities.

When using an independent rating approach with multiple SMEs providing independent ratings for each KSA, those KSAs that receive a mean rating of .5 or greater in any single task/KSA combination are deemed to be job-related requirements suitable for consideration in the selection process.

When using a consensus rating approach, those KSAs rated 1 in any single task/KSA combination are deemed to be job-related requirements suitable for consideration in the selection process.

Rating the task/KSA relationship

(continued)

Sample Scale 2

Necessity for Performance scale:
(WRIPAC, 1993)

- 0** Possession of this KSA is NOT RELATED to successful overall performance of this task.
 - 1** Possession of this KSA is DESIRABLE, but not essential, for the overall satisfactory performance of this task.
 - 2** Possession of this KSA is IMPORTANT for the overall satisfactory performance of this task.
 - 3** Possession of this KSA is ESSENTIAL for the overall satisfactory performance of this task.
-

Interpreting rating data from *Necessity for Performance scale*

By scale definition, those KSAs that are required to complete specific job tasks are those with a scale rating of at least 2, meaning that possession of those KSAs is necessary in order for an individual to successfully complete one or more specific tasks of the job/job classification. Therefore, only those KSAs that link strongly enough (that is, receive a linkage rating of at least 2) to at least one job task can be considered to be job-related requirements. Only job-related requirements should be considered in selection-related activities.

When using an independent rating approach with multiple SMEs providing independent ratings for each KSA, those KSAs that receive a mean rating of 1.5 or greater in any single task/KSA combination are deemed to be job-related requirements suitable for consideration in the selection process.

When using a consensus rating approach, those KSAs rated at least 2 in any single task/KSA combination are deemed to be job-related requirements suitable for consideration in the selection process.

ATTACHMENT J: Sample Task/KSA Linkage Matrix

The following sample matrix is intended to demonstrate a format for collecting task/KSA linkage ratings from SMEs. This format is an example only, as there is any number of other means of formatting the collection of task/KSA linkage data that would meet the requirements outlined in *Section 2200*.

***Title of Job Classification
for which the Job Analysis Study is being Conducted***

Task/KSA Linkage

Linkage Scale: *[insert linkage scale for SME use in the rating process.]*

	Task 1	Task 2	Task 3	Task 4	Task 5
KSA 1	<i>KSA 1/Task 1 relationship rating</i>	<i>KSA 1/Task 2 relationship rating</i>	<i>KSA 1/Task 3 relationship rating</i>	<i>KSA 1/Task 4 relationship rating</i>	<i>KSA 1/Task 5 relationship rating</i>
KSA 2	<i>KSA 2/Task 1 relationship rating</i>	<i>KSA 2/Task 2 relationship rating</i>	<i>KSA 2/Task 3 relationship rating</i>	<i>KSA 2/Task 4 relationship rating</i>	<i>KSA 2/Task 5 relationship rating</i>
KSA 3	<i>KSA 3/Task 1 relationship rating</i>	<i>KSA 3/Task 2 relationship rating</i>	<i>KSA 3/Task 3 relationship rating</i>	<i>KSA 3/Task 4 relationship rating</i>	<i>KSA 3/Task 5 relationship rating</i>
KSA 4	<i>KSA 4/Task 1 relationship rating</i>	<i>KSA 4/Task 2 relationship rating</i>	<i>KSA 4/Task 3 relationship rating</i>	<i>KSA 4/Task 4 relationship rating</i>	<i>KSA 4/Task 5 relationship rating</i>
KSA 5	<i>KSA 5/Task 1 relationship rating</i>	<i>KSA 5/Task 2 relationship rating</i>	<i>KSA 5/Task 3 relationship rating</i>	<i>KSA 5/Task 4 relationship rating</i>	<i>KSA 5/Task 5 relationship rating</i>

ATTACHMENT K: Elements of a Task-Based Job Analysis

The following pictorial representation is intended to denote the elements included in a task-based job analysis in the order in which the elements should be completed, per the discussion outlined in *Section 2200*.

Completing a Task-Based Job Analysis