

Volume 1, Number 2
August, 1967

*Personnel Assessment
Monographs*

a publication of the
Assessment Council
of the
International Personnel Management Association

ipmaac

CONTENT VALID TESTING
FOR SUPERVISORY AND MANAGEMENT JOBS:
A PRACTICAL/Common SENSE APPROACH

DENNIS A. JOINER
DENNIS A. JOINER AND ASSOCIATES
SACRAMENTO, CALIFORNIA

Personnel Assessment Monographs is published by the Assessment Council of the International Personnel Management Association (IPMAAC), 1617 Duke Street, Alexandria, Virginia 22314. Copies are provided without charge as service to members of the Assessment Council. Members of IPMA and others may obtain copies by writing the Director of Assessment Services at the above address. The Monographs are intended to provide information on current topics in the field of applied personnel assessment. Manuscripts or proposals for manuscripts are solicited by the Editor. Reviews of research, assessment methods, applications, innovative solutions to personnel assessment problems, and related subjects which are not generally available elsewhere are appropriate. Monographs are intended to be of value to practitioners of personnel assessment in such fields as employee selection, performance appraisal, program evaluation, recruitment, organizational assessment, and related fields. Manuscripts are reviewed by the editor and consulting editors, and accepted for publication based on the technical and professional soundness of the manuscript, and the extent to which conclusions and other information is relevant to applications in the field of personnel assessment. The editor seeks to balance topics covered to insure that subjects of interest to all readers are addressed.

Barbara Showers, Editor

**CONTENT VALID TESTING
FOR SUPERVISORY AND MANAGEMENT JOBS:
A PRACTICAL/COMMON SENSE APPROACH***

Dennis A. Joiner
Dennis A. Joiner & Associates
Sacramento, California

INTRODUCTION

The challenge for the test developer is to create an examination within the resources available which will (1) accurately sample the tasks performed on the job, and (2) give test takers the opportunity to demonstrate the extent to which they possess the knowledge, skills and abilities determined to be most important for successful performance on the job.

This monograph will provide an overview of the most common types of test instruments used for employee selection and promotion with an emphasis on management and supervisory assessment processes. Test instruments discussed will include written technical knowledge tests, oral/background interviews, internal promotability systems, and various assessment center (job simulation) exercises. The advantages and disadvantages of each type of instrument will be covered as well as information on when the use of the various testing instruments is appropriate.

WHY TEST?

No test is as comprehensive as simply putting a person in a particular job and watching their performance for an extended period of time to see if they can handle the job requirements. It would appear that if it were possible

*Adapted from Joiner, D.A., "Testing for Knowledge, Skills, and Abilities", in More, H.W. and Unsinger, P.C. (Eds.): THE POLICE ASSESSMENT CENTER, First Edition, 1987. Courtesy of Charles C Thomas, Publisher, Springfield, Illinois.

EDITOR'S PREFACE

The first systematic personnel assessment procedures consisted largely of performance or work simulation tests designed to measure such "content domains" as horseback riding, music, and social protocol. The Chinese devised these and other means of examining candidates for entry and promotion in its civil service more than 3,000 years ago. The earliest American employment tests, devised around the beginning of the 19th Century, were of similar character, as were the "practical tests" used for the Federal Civil Service following passage of the Pendleton Act creating a Federal system.

Today, multiple-choice tests, oral interviews, and evaluations of the training and experience of candidates are the typical means of assessing applicants for appointment and promotion in both public and private organizations. The amazing successes of early personnel psychologists in devising efficient means of assessing and demonstrating the predictive accuracy of the new assessment procedures, particularly multiple-choice tests, played a major role in this shift, as did the enormous growth in the size of employing organizations (particularly governments), the numbers of candidates to be assessed, the diversity of occupations, and new technologies for scoring and analyzing test data.

Following publication of the successful efforts of AT&T to devise a more comprehensive means of identifying persons likely to be successful in managerial positions, however, a new chapter in personnel assessment began which rested partly on the ancient notions of performance tests and work simulations. The Assessment Center rapidly became popular as a means of assessing many attributes of candidates, particularly for supervisory and management positions.

But the Assessment Center has well-known drawbacks. A number of different tests are used, including diverse simulations, ability, and personality tests. Trained assessors combine this information about individual assessees to rate each on a set of dimensions, such as "planning" and "oral communications." A full-blown assessment center can thus be costly, time-consuming, and difficult to manage. Moreover, questions have been raised about validities with job performance criteria (as distinguished from promotion rate criteria) and internal consistencies of assessor ratings.

Unfortunately, the term "assessment center" has become synonymous with job simulation. Joiner points out that use of simulations commonly found in assessment centers can be used effectively, even by small employers, in the form of "mini" assessment centers. Such an approach may often be preferable to use of written tests, promotion potential ratings, traditional oral interviews, or ratings of training and experience, to which many personnel assessment specialists restrict themselves.

DENNIS A. JOINER is well-known as a consultant and trainer specializing in the development of content-valid assessment center examinations. His many projects have included promotional examinations for public safety agencies and supervisory and management assessment procedures in other kinds of organizations, both for employee selection and for employee development. He has conducted workshops and provided on-site training to members of many professional associations and internal staffs of client organizations. His firm, Dennis A. Joiner & Associates, based in Sacramento, California, serves both public and private clients.

Bruce Davey served as consulting editor for this issue, which was prepared for publication by the preceding editor, James C. Johnson.

to hire or promote everyone who was interested in a particular job, this would clearly be the best form of testing. Unfortunately, there are usually many more people interested in a job or promotion than can be accommodated using this method. Further, hiring or promoting everyone with an interest in a job and simply demoting or laying off those who do not work out ignores the damage which could be done to the organization, the community served and equally important to the individual who is put in a position which he/she is not sufficiently competent to handle successfully. So, regardless of the number of individuals interested in a particular job, there remains a need to identify, in advance of placement, individuals who appear to be best qualified and job ready.

WORKING FROM THE JOB ANALYSIS

A thorough job analysis will provide the test developer with all the information necessary to construct a job related (content valid) examination process. The most important products of the job analysis and how they are used by the test developer are as follows.

Task Statements

Task or duty statements are the elements of the job. Of considerable value to the test developer is a list of the task statements in the order of their importance to the job with numerical indicators of the frequency which the tasks are performed and whether an individual must be fully competent to perform the task when appointed. The task statements can take many different forms. What is critical, however, is that they accurately describe all important activities an individual in the job (an incumbent) would have to perform. This information tells the test developer what the job is. The more accurately the job is described, the more accurately the test developer can simulate the conditions of the job in the assessment process.

Examples of useful task statements:

Writes Reports and Correspondence: Generates self initiated and required reports, written instructions and correspondence which are both intra- and inter-departmental in nature.

Maintains Morale and Motivation: Encourages subordinates and others to perform their best work. Provides a work atmosphere conducive to employee work production and job satisfaction. Limits unpleasant or unnecessary work obstacles and responds promptly and respectfully to visible or stated employee concerns.

Interprets and Implements Policy: Advises subordinates as to the meaning and consequences of departmental and supervisory policies; announces and explains procedures and regulations; enforces adherence to policies by others and self.

Knowledge, Skills and Abilities

The next most important product from the job analysis is the knowledge, skill, and ability characteristics which are required to perform the important job tasks. These characteristics will be the factors measured by the assessment process. A thorough job analysis will also determine the specific weight each factor should have in the assessment process. But, regardless of the weights, only knowledge areas, skills and abilities (KSAs) which are essential for successful job performance and which a person must possess when appointed to the job, should be included for measurement in the testing process.

The following are examples of the type of KSAs which are often found to be important for testing purposes in middle management assessment processes.

Written Communication Skills: Expresses ideas in writing clearly and effectively; appropriate choice and use of words

and format; clarity not impaired due to problems of spelling, grammar, punctuation or organization; accurately interprets written communications of others.

Planning Skills: Determines and establishes priorities, sets standards and/or provides broad general guidelines; identifies potential problem situations and develops appropriate courses of action and alternative procedures; anticipates consequences.

Interpersonal Skills: Interacts with people in a manner that shows concern for the individual and sensitivity to personal differences and feelings; demonstrates ability to establish rapport and evoke confidence; talks and corresponds effectively with people without arousing antagonism; helps people to feel at ease in their presence.

Initiative: Demonstrates self-starting behavior; actively influences events rather than passively accepting them; takes action beyond what is necessarily called for; originates action without instruction; assumes responsibility and control in situations requiring prompt action; makes suggestions to improve operations.

Table I illustrates the relationship or linkage of eleven critical tasks to twelve common management skill dimensions. This table, which was adapted from a middle management level job analysis study, helps the test developer decide what kinds of test components to use in the assessment process as well as which KSA characteristics to measure within each component of the test. (This will be discussed in more detail under Job Simulation/Assessment Center Exercises.)

TABLE I

MIDDLE MANAGER JOB ANALYSIS STUDY

TASK/DIMENSIONS MATRIX

CRITICAL TASKS	BEHAVIORAL DIMENSIONS											
	Planning Skills	Problem Solving Skills	Written Communication Skills	Initiative	Organizational Skills	Behavioral Flexibility	Leadership Skills	Oral Communication Skills	Interpersonal Skills	Attitude	Integrity	Motivation
Maintains Morale/Motivation	X	X		X	(x)	(x)	X	X	X	X	(x)	X
Writes Reports/Correspondence	X		X	X	(x)							X
Interprets/Implements Policy		X	X		X	(x)	X	(x)		(x)	X	
Plans (routine & special operations)	X	X	X	X	X	X	(x)	(x)				X
Supervises Subordinates		X		X	X	X	X	X	X	(x)	X	X
Maintains Discipline		X	(x)	(x)	(x)	(x)	X	X	X	X	X	X
Conducts Interviews	X	(x)				(x)	X	X	X	X	(x)	
Reviews Reports/Correspondence		X	X									
Directs Field Operations	X	X		X	X	X	X	X	(x)	(x)	X	(x)
Resolves Personnel Complaints		X	(x)				(x)	X	X	X	X	
Rates Subordinates			X		(x)	(x)	X		X	X	X	

Tasks = Only the most important tasks which an individual must be able to perform when appointed to a Middle Manager position in this Department.

Dimensions = Only those dimensions which clearly differentiate between levels of effective performance on the job according to ratings received during the job analysis.

X = 100% of job analysis participants indicated the dimension was required to successfully perform the task.

(x) = At least 80% of job analysis participants indicated the dimension was required to successfully perform the task.

Work Samples and Situational Data

Work samples (sometimes called work products) are source materials collected during the job analysis which help define the tasks for the test developer. These written materials illustrate (1) the reading level required on the job; (2) the range of complexity of issues dealt with on the job, as well as (3) examples of the specific types of issues and problems individuals must be able to deal with once appointed or promoted. The written work samples collected typically range from phone messages, overtime requests and other routine forms to drafts of new policies and procedures, budget proposals and comprehensive reports.

Other forms of situational data of importance to the test developer include descriptions of critical incidents which occur on the job and descriptions of a typical day in the life of an incumbent in the position. These descriptions can be obtained in written narrative form or through individual or group interviews. Regardless of the method of data collection; however, the purpose is the same - to provide the test developer with a thorough understanding of the job and the environment in which the job is performed in order to develop a realistic, job relevant examination process.

TRADITIONAL TESTING PROCESSES

"Traditional testing processes" as used here refers to paper and pencil knowledge tests, oral or background interviews and performance appraisal systems. Each of these approaches are designed to measure different aspects of an individuals' qualifications. The advantages and disadvantages of each of these approaches will be discussed briefly.

Written Knowledge Tests

Multiple-choice, essay and fill-in-the-blank format written tests have all been and are still used by many jurisdictions as part of their selection and promotion processes. Due to the difficulty of efficiently scoring essay and fill-in-the-blank tests, multiple-choice tests are by far the most common type of written test used in examination processes. In fact, the efficiency of multiple-choice tests is their strongest asset.

Written, multiple-choice tests can be administered to very large groups under standardized conditions in a relatively short period of time. The test can be developed to cover or sample an extensive body of knowledge. The actual content of the test is determined by the importance of each knowledge area identified through the job analysis. If one technical knowledge area is twice as important as another, then the weighting of the test can be adjusted by including twice as many items dealing with that particular content area. The scoring of the multiple-choice test is quite efficient, since it is usually achieved through high speed optical scanning equipment with very low error rates.

The strongest criticisms of multiple-choice tests have to do with cultural bias and what is really being tested. The argument regarding cultural bias is based on the fact that multiple-choice test items are often very complex English grammatical structures. The stem or incomplete statement which forms the basis of the item is often constructed to be long and somewhat complex to ensure that only one of the three to five possible choices provided is correct. This complexity is magnified by the fact that the candidate has to add on and try out each of the choices provided which also are often quite long and complex. While one could argue that all candidates are forced to deal with the same items in the test, it does seem quite possible that someone

who learned English as a second language or comes from a home where a different language or dialect is spoken would be likely to experience more difficulty with the test regardless of their qualifications for the job (i.e., regardless of their ability to apply the relevant knowledge on the job).

The main issue in the argument regarding what is actually being measured by written tests is that there is a difference between being able to select the best of three to five choices provided in a test and having to determine an appropriate response on the job where the choices are not provided. It is this authors opinion, however, that the person who can consistently recognize the best choice when choices are provided on a job relevant test, is likely to know the content better than the individual who cannot recognize the correct choices.

The most important issue regarding whether or not to use a technical knowledge test is whether someone with more knowledge is likely to be better on the job than someone with less knowledge of the areas tested. Usually the higher one moves up the hierarchical structure in an organization, the less important knowledge tests become in the assessment process. There are two major reasons for this. First, the higher one goes in the supervisory/management structure, the more important other KSA factors become, such as interpersonal, decision making and leadership skills. Second, since in most cases candidates are being promoted from the level they will be supervising, they already have the technical knowledge required and usually were tested for the relevant technical knowledge prior to obtaining their current position.

Consequently, for supervisory and management level jobs, the importance of technical knowledge must be reviewed carefully to determine whether it should be included in

the testing process. When a written test is included (for example at the first and second supervisory levels) it is often most appropriate to use it as a "pass/fail" or "screening" component. Using the written test as a screening device ensures that candidates possess sufficient technical knowledge, while giving more weight and determining the final ranking based on the more important skills and abilities measured in other (later) components of the testing process. This approach also minimizes any unfair adverse impact against individuals from nondominant cultural backgrounds while ensuring that the candidates who can best apply job required knowledges in job related situations are the candidates who rank highest on the final list.

Oral Interviews

"Oral interviews" are frequently referred to as oral boards, oral review boards, background interviews or qualifications appraisal panels in the public sector. Unstructured oral interviews were until recent years the most common, and often the least reliable and least valid method used in personnel selection and promotion processes. The popularity of the oral interview is probably best attributed to its relatively low cost to administer, tradition and the fact that the participants (interviewers and interviewees) generally like the process. Interviewers "feel" like they get a good sense for the candidate's qualifications. Interviewees appreciate the opportunity to describe their accomplishments and qualifications (i.e. "to toot their own horns"). Unfortunately, research on the predictive accuracy of the unstructured interview method lends little support for its continued use. Traditional, relatively unstructured interviews measure little more than oral communication skills in a non job related setting.

In recent years, with legal pressures for job relatedness, interviews have started to become more structured with all candidates being asked the same questions which are based on job analysis. Also, much more common in recent years has been the use of problem centered or preexposed problem interviews. In problem centered interviews, candidates are provided with a job relevant problem to study for a specified period of time (usually fifteen to forty-five minutes) prior to the interview. The interview begins with the candidate presenting his/her solution to the problem. The predictive validity of job related, structured and problem centered interviews exceed that of traditional, unstructured interviews because they provide the panel members with more relevant and standardized information upon which to base their decisions.

When budgetary resources do not allow the use of more thorough testing procedures, structured or problem centered interviews can allow an alternative approach for measuring oral communication and to some extent factors such as problem solving, interpersonal and organizational skills. However, the accuracy of this method will not be as great as what can be achieved with a series of job simulation exercises. Overall, the best use of the interview is as a final selection component when the appointing authority can use all available information regarding an individual's past performance and experience as well as scores obtained from more valid selection methods to discuss and determine whether the candidate is qualified for a particular opening within the organization.

Performance Appraisal Systems

Many different systems have been used to predict future performance from past performance. The methods are sometimes referred to as promotability ratings, meritorious service credits or department review ratings. These systems are

methods of including a consideration of a persons past performance and accomplishments as a portion of the final ranking criteria for promotion. The general concept is a good one. There are several factors which are best measured over an extended period of time, e.g. motivation, integrity and attitude.

The problems with these systems are usually problems associated with obtaining accurate measures and sometimes with acceptance of the process by candidates who fear that unfair bias will creep into the ratings. Specifically, the problems in obtaining accurate ratings are: (1)different candidates are performing different duties in their current jobs which makes comparisons very difficult; (2)the duties performed in a candidates current job may have very little in common with the duties at the next higher level which makes prediction difficult since there is little basis for comparison, and (3)candidates have different supervisors who, without considerable training, will use different rating standards.

The problems can be overcome by developing a structured promotability rating process which is limited to factors which are best measured over a long period of time. Only factors which are required for successful performance in all jobs at the lower level and at the level candidates are aspiring to are evaluated. Training and controls on the actual rating process are built into the promotability rating system. For example, some departments are using a process within which specific criteria are being provided to the immediate supervisors of the candidates for each factor to be evaluated. The supervisors are responsible for providing narrative descriptions of the on-the-job performance of each candidate which demonstrates both positive and negative examples of the characteristics relevant to the performance factors to be assessed. This information is forwarded up the chain of command to the second level

supervisors of the candidates. This smaller group of individuals then meets to review the narrative information and each candidate's personnel file. This group then determines the actual numerical ratings through a discussion which leads to a consensus rating on each rated factor for each participant.

A variation of this process is to have a group of three raters come to consensus ratings based on the narrative descriptions which are verified as accurate as they are routed up through the chain of command. One additional advantage of this variation of the process is that the candidates names can be removed and random identification numbers assigned prior to the actual consensus rating process. This ensures that name recognition does not interfere with the rating process. Further, this variation seems to work well in large departments where getting all of the second level supervisors together would be very difficult.

A well developed and administered promotability rating process requires a considerable amount of time and effort on the part of department managers. However, it is time well spent since it is the only way to obtain accurate ratings on factors such as past contributions, motivation, attitude and integrity as part of the assessment process prior to appointment. Often the job analysis will support these factors having a combined weight of from 20 to 30 percent of the total examination. If these factors are not considered in the initial selection process, then the department runs the risk of having to demote someone later (after promotion) or live with an unproductive incumbent. Either of these alternatives is quite negative for all concerned.

JOB SIMULATIONS/ASSESSMENT CENTER EXERCISES

In this section "job simulation exercises" and "assessment center exercises" will be used as synonyms. Most assessment centers consist entirely of job simulation exercises with the occasional exception being the inclusion of one or more paper and pencil psychological tests or on very rare occasions a traditional oral interview as one of several exercises. When a series of job simulations are used in the testing process and evaluated by a team of trained assessors who pool all information obtained to determine the final outcome, score or ranking, the process is referred to as an assessment center. But the job simulation exercises commonly associated with assessment centers can be and are often used as isolated components or hurdles in supervisory and management level examinations.

The major advantage of well developed job simulation exercises is the fact that they are job relevant. The exercises are developed to simulate the most important and most frequently performed tasks in a job. This allows candidates to demonstrate job relevant KSAs in the same or similar context to the situations where they would be called upon to use those KSAs on the job. Using job related exercises also increases the predictive validity or accuracy of the process because the exercises are credible and candidates can "get into" the simulations as if they were real life situations thus demonstrating their true approach/their true level of skills.

Table I illustrated the relationship of several critical job tasks to twelve important management skill dimensions. This type of matrix tells the test developer where the skills are used on the job. Using this information the test developer can construct exercises which simulate the identified critical tasks to allow measurement of the important management skills in a job relevant context.

Table II is a matrix illustrating the exercises developed to simulate the eleven most important task areas identified through a job analysis study. Table III is a matrix illustrating which skill dimensions were evaluated in each of the job simulation exercises.

TABLE II

MIDDLE-MANAGEMENT LEVEL
ASSESSMENT CENTER

TASK/EXERCISE MATRIX

<u>CRITICAL TASKS*</u>	<u>GROUP DISCUSSION</u>	<u>MANAGEMENT INBASKET</u>	<u>INTERVIEW SIMULATION</u>	<u>PROBLEM ANALYSIS</u>
1. Maintains Morale and Motivation	X	X	X	
2. Writes Reports/Correspondence		X		X
3. Interprets and Implements Policy	X	X	X	X
4. Plans (routine and special operations)	X	X	X	X
5. Supervises Subordinates	(x)	X	X	
6. Maintains Discipline	X	X	X	
7. Conducts Interviews	(x)		X	
8. Reviews Reports/Correspondence		X		X
9. Directs Field Operations		X	(x)	X
10. Resolves Personnel Complaints	(x)	(x)	X	
11. Rates Subordinates	(x)	(x)	(x)	

*Critical tasks are listed in rank order by importance.

X indicates which exercise simulates task.
(x) indicates indirect or to a smaller degree.

TABLE III
MIDDLE MANAGEMENT LEVEL
ASSESSMENT CENTER EXAMINATION

DIMENSION/EXERCISE MATRIX

<u>DIMENSION</u>	<u>GROUP DISCUSSION</u>	<u>MANAGEMENT INBASKET</u>	<u>INTERVIEW SIMULATION</u>	<u>PROBLEM ANALYSIS</u>
Planning Skills	X	X	X	X
Problem-Solving Skills	X	X	X	X
Written Communication		X		X
Initiative	X	X	X	
Organizational Skills		X	X	X
Behavioral Flexibility	X	X	X	
Leadership Skills	X		X	
Oral Communication	X		X	
Interpersonal Skills	X		X	
*Attitude				
*Motivation				
*Integrity				
**Technical Knowledge				

X indicates which dimension can be observed and evaluated in each of the exercises.

*Indicates dimensions which are best evaluated over an extended period of time, i.e., through a structured promotability rating system prior to appointment or during a probationary period after appointment.

**Technical Knowledge is best measured through a multiple-choice written examination with the length and weight of each subtest determined by the importance of each technical knowledge area identified in the job analysis.

The actual content and structure of the exercises is determined not only by the task statements, but also by the work samples and situational data collected during the analysis of the job. While the content and structure or form the exercises take varies considerably based on the job being simulated, there are a number of common types of exercises. The most common types of exercises used in management and supervisory assessment centers will be discussed below.

Inbasket Exercises

Inbasket simulations are the most common type of assessment center exercise. Dealing with paper work is a very common component of supervisory and management jobs and inbasket exercises allow candidates the opportunity to demonstrate how they would handle the various types of written material which must be dealt with in the job for which they are competing.

The validity or predictive accuracy of this type of exercise is enhanced by the wide variety of different issues and problems which can be posed for the candidate. Typically, an inbasket will contain from twenty to thirty different items for review and action. The items are developed to be similar in content and form to the work samples collected during the job analysis. Usually, there is more material than can be easily handled during the time allowed. This forces candidates to demonstrate their planning, organizing, delegation and problem solving skills in dealing with the problem as a whole as well as in the specific actions they take regarding the individual inbasket items.

A common scenario is to tell the candidate through the written exercise instructions that he/she has just been appointed to a position at the level he/she is competing for in the examination process. Further, the instructions explain that the predecessor left several days ago,

unexpectedly. The candidate is to assume that they have only a limited amount of time (usually one to three hours) to deal with the materials which have accumulated in the predecessors "inbasket" during the period that the position was vacant. Often the instructions explain that the candidate is in the office on a weekend, has no staff available to assist him/her and will be leaving (at the end of the designated amount of time) for several days to fulfill a prior work related commitment. This forces the candidate to initiate in writing whatever actions he/she believes are most appropriate in relation to each inbasket item.

In addition to the written instructions, candidates are usually provided with a calendar and an organization chart illustrating the names and reporting relationships of the individuals in the hypothetical organization used for the exercise. Also, biographical sketches of the hypothetical subordinates who report to the candidate in his/her new position are sometimes provided. The inbasket items are designed to vary considerably in importance and priority. The items also vary in length which is not necessarily correlated with importance.

When the time limit for the exercise is reached, the inbasket materials and any notes, letters, memos or other correspondence written by the candidate are collected for review by one or more assessors. Often there will also be an interview with the candidate after the inbasket materials have been reviewed. The main purpose of the interview is to ensure that the assessor(s) understand the actions taken by the candidate and the rationale for the actions taken prior to evaluating the candidate's performance. When it is not logistically possible to interview candidates, inbasket action summary sheets may be completed by the candidates. These questionnaires contain questions similar to those assessors would ask during an interview and allow space to explain the reasons for all actions taken during the exercise.

Written Report/Problem Analysis Exercises

In addition to the inbasket, other written format exercises are also quite common in management and supervisory level assessment processes. Written exercises can have many different titles and take many different forms. They vary from simply asking candidates to write a report on a job relevant topic to having candidates review all documents related to a complex problem or investigation, summarize the facts presented and make a justified recommendation as to what action the department should take.

As with all exercises, the content, time allowed and complexity of written exercises is determined by the critical tasks performed in the "target" job. If incumbents at the target level in the organization deal with budget, the exercise might be titled **The Budget Exercise**. A budget exercise can be designed to require candidates to draft the proposed budget for a division or bureau of the department or could require candidates to draft recommendations for reducing the budget by a specified percentage including detailed justification for the recommendations made.

Similarly, if the job being simulated includes an important scheduling function, the written exercise developed might be a scheduling exercise. In a scheduling exercise for a law enforcement position candidates could be provided with information regarding the crime patterns of a particular watch, a list of the personnel assigned to the watch including rank and seniority data, a stack of vacation and days off requests, a copy of relevant department policies and labor agreements, information on special training which must be scheduled for all officers on the watch and a map of the sectors and beats which require staffing. Within the time allowed for the exercise the candidate simply has to develop a workable schedule.

An oral component can also be added as a second or final part of a primarily written exercise. This oral component often takes the form of a brief oral presentation where one or more assessors play the role of the candidate's superior(s). The candidate is asked to present and justify the written recommendation. This oral component may be short and simple or it may be designed to require the candidate to "think on his/her feet" and respond to a number of predetermined (standardized) questions which may or may not be related to the original exercise problem.

Group Discussion Exercises

In most organizations, the higher one goes up the chain of command, the more time one spends in meetings. There are staff meetings with subordinates, staff meetings with peers, staff meetings with superiors, and task force meetings and special project meetings both inside and outside of the department. Group discussion exercises are designed to give participants a chance to show the assessors their skills in working effectively in a meeting or group setting.

Generally, five to six candidates are randomly assigned to participate together in a group discussion exercise. These exercises are often referred to as "leaderless" group discussions (LGD) because no leader is designated in the instructions for the exercise. This puts all participants on an equal status at the start of the exercise. The candidates are observed by three to six trained assessors who do not interact in any way with the candidates. Each assessor is responsible for observing the behavior of only one or two of the assembled candidates.

The assessors are able to sit back out of the way in the outer circle and observe the demonstration of such factors as leadership (influence), problem solving, flexibility, interpersonal and oral communication skills. The usual time allowed for the exercise is about one hour.

Group discussion exercises are commonly categorized into one of two basic types. The first type is referred to as a cooperative or unassigned roles group. This exercise usually simulates a staff meeting or task force meeting. Candidates are given an agenda containing one or more issues or problems and are asked to develop recommendations on how to best deal with the issue(s) presented. Ideally, the topics selected by the test developer for discussion will be current issues or problems relevant to the department. Further, topics should be somewhat broad in nature to avoid biasing the content toward one or a few of the participants. Broad topics allow for discussion of pros and cons of various alternative solutions. The assessors are not just looking for who comes up with the best solutions or recommendations, but also how the candidate interacts with others to further the overall efforts of the group.

The other common type of leaderless group discussion is referred to alternately as a competitive or assigned roles group. In this variation of the exercise, each participant is given a written role or position to support. After providing sufficient time for the candidates to study the written materials, the exercise begins with each participant making a three to five minute (persuasive) presentation on their randomly assigned position. Following the individual presentations, the group moves into general discussion regarding which of the positions presented should be accepted by the group as a whole. The instructions for the exercise usually require that only one of the five or six positions be adopted by the group and that this must occur by the conclusion of the exercise.

The major advantages of the assigned roles type of group are that it (1) requires all candidates to participate, (2) allows assessors to observe "persuasiveness" when persuasiveness has been identified as a critical skill for

the job, and (3) gives participants a specific position to support which is often more realistic than simply having candidates brainstorm solutions as is the case in the unassigned roles LGD. A job relevant scenario might be to tell the candidates that they are all division chiefs from different divisions of the department. The randomly assigned position papers could be budget requests for spending a several thousand dollar budget surplus. For example, within a law enforcement context, the Field Services Division needs more patrol cars, the Investigations Division needs crime lab equipment, the Personnel and Training Division needs to hire a consultant to revamp the departments selection and promotion procedures, etc. At the sergeant or lieutenant level, the exercise could cast the candidates as a selection committee. Each group participant could be given a summary of a different officer's qualifications for a special assignment (perhaps an opening on the SWAT team). Each candidate would be responsible for presenting the qualifications of the nominee they are sponsoring and then the group as a whole would make the final selection during the discussion which follows the persuasive presentations.

The major disadvantage of assigned role groups has to do with the difficulty of developing five or six different positions all of which have pros and cons and all of which are approximately equal and thus fair to the candidates who randomly draw them.

Because these exercises are difficult to develop many personnel specialists opt for renting "off-the-shelf" competitive group discussion exercises. This is not advised unless the rented exercise consists of job relevant content. Off-the-shelf or "canned" exercises usually lack relevance to the candidates. Not only is it more difficult to legally defend the use of canned exercises, but more important is the fact that if the exercise is not relevant to the candidates, then the candidates cannot demonstrate their

true skills in a job relevant context. Rather, they find themselves looking around at the assessors and wondering what factors are being evaluated. However, when truly job relevant content is used, the candidates get into the simulation as if it were real life and often forget the assessors are even in the room.

Oral Presentation Exercises

As with all exercises, oral presentations can take many different forms depending on what is important in the job being simulated. Common forms of oral presentations are press conference exercises, formal presentations to community groups and informal presentations to superiors or subordinates (briefing exercises). In oral presentation exercises, candidates are given a brief period of time to plan and organize their thoughts and make notes for a brief presentation on a job related topic to a specific group. The audience is usually played by assessors who observe the presentation and then ask the candidate to respond to a series of questions. As was described earlier regarding the interview which sometimes follows a written exercise, the questions which follow the oral presentation may or may not relate directly to the topic of the original presentation.

Oral presentation exercises allow assessors to observe how well an individual presents himself and represents the department when providing job relevant information in a variety of important situations. This type of exercise is relatively easy to develop, administer and evaluate. When the exercise simulates a press conference, video cameras can be used to add realism. The assessors can play the role of the press armed with lists of questions to ask about the situation described to the candidate during his/her preparation period and/or about other controversial issues facing the department or the industry in general.

In addition to legally defensible oral presentation exercises which are designed to simulate important situations which actually occur on the job, another form of exercise called the biographical presentation exercise is also sometimes used, though not recommended by this author. For the biographical presentation, candidates are given twenty minutes with a large sheet of flip chart paper and assorted color felt-tip pens. The candidates are told to "draw a picture of their background and qualifications for promotion." Each candidate is then given three to five minutes to present their artistic product to the assembled group. This "audience" usually includes the assessors and the other competing candidates. This exercise usually provides very little information which is relevant to the job. (When was the last time as part of your job you were asked to draw a picture of your background and present it to a group?) Fortunately, when it is used, it is usually used primarily as an icebreaker and is intended to carry very little weight in the assessment process. Again, this exercise is not recommended.

Interview Simulation/Role Play Exercises

One of the most popular exercises in supervisory and management assessment processes is the interview simulation or role play exercise. This type of exercise is designed to simulate the important one-on-one interactions which occur on the job. The most common form of role play exercise is a subordinate counseling situation. This is the most common form the exercise takes because dealing effectively with subordinate problems (and problem subordinates) is usually identified as one of the most critical tasks performed by supervisors and managers.

Because of the complex nature of most role play exercises, trained role players are recommended. This ensures that the same character type is played for all candidates. Assessors can usually play the audience for an oral

presentation exercise and ask questions from a predetermined, practiced list while simultaneously observing and recording the behavior of the candidate. However, this is not the case in the dynamic interaction of an interview simulation where the role player has a character to play and background information, but no script. In this exercise, the role player must "roll" with the candidate who should control and direct the interview.

Further, even if it were possible to train the assessors to consistently play the role while simultaneously performing the other important assessor duties, this would not be recommended. Particularly when the role is one of a subordinate who needs to be set straight, it would be difficult for a candidate to effectively deal with the "problem employee" knowing that the same individual will be rating the candidate when the candidate is through setting the employee (assessor) straight. Rather, the best role players for subordinate counseling exercises are other individuals with experience within the occupation or industry where you are testing. This occupational background allows the role player to play the role of a subordinate with credibility. In the public sector, the role players can be "borrowed" from a neighboring jurisdiction far enough away to ensure that they will not know or be known by the candidates. The role players can be trained in advance of the examination and selected video tapes made during the role play practice sessions can be used for the practice rating sessions during assessor training.

The actual structure of a role play exercise usually allows fifteen to thirty minutes for candidates to study background information on the problem and fifteen to thirty minutes to interview/deal with the "subordinate." After the interaction with the role player there is usually an additional five to fifteen minute interview with the one or two assessors who observed the simulation. This interview

is similar to the inbasket interview in that it allows the assessors to ask questions about the reasoning behind the approach and specific actions taken by the candidate in handling the situation. In another variation of the exercise, candidates are required to write a written report documenting the information covered during the simulated interview. This could be in lieu of or in addition to the interview with the assessor(s).

As mentioned above, variations of the subordinate counseling situation are the most common scenarios for the interview simulation exercise. There are, however, as many other possible forms of the exercise as there are important one-on-one situations in the job being simulated. The role player could be trained to play the role of an irate citizen wanting to file a complaint or wanting to learn the results of the investigation into a complaint he/she filed several days earlier. Or the role player could be a reluctant witness to a situation the candidate has been assigned to investigate. Or the role player could play the role of a difficult client applying for a public service or program. As with all exercises, the more realistic the simulation, the easier it will be for the candidate to get into the role and the more accurate the assessment will be of the candidates ability to handle similar situations once appointed/promoted.

Public Safety Field Command Exercises

Just as supervisory and management situations which occur in the office can be simulated, so can incidents which occur in the field. The command simulation exercise presents candidates with a simulated major emergency incident, such as a major fire or hazardous materials situation in a fire service assessment process or a riot, barricaded subject or hostage negotiation situation in a law enforcement examination process. Candidates must make decisions and give commands to call for and allocate personnel and other resources during the evolving situation. Field command

incidents can be simulated using table top models with buildings, vehicles and other props made to scale. Another approach is to use a series of color slides and prerecorded audio cassettes. Following the exercise, one or more assessors, who observed the candidates reactions during the simulation, will interview the candidate. This ensures that the assessors understand the reasons behind the actions taken prior to evaluating the candidate's performance.

A variation of this type of exercise is the dispatch exercise which is sometimes used in Police Sergeant assessment processes. In the dispatch exercise candidates listen to a prerecorded audio tape which simulates the radio transmissions between the dispatcher and officers in the field. The "sergeant" monitors the transmissions and keeps track of his/her team or squad on a sector map. At various points in the exercise the audio cassette is stopped to allow the candidate to explain, orally or in writing, if he/she would intercede and redirect any of the resource allocations made by the dispatcher. If so, candidates must explain the specific actions they would take, including whether he/she would personally respond to any of the calls for service. Usually, as a conclusion to this exercise the candidate will be required to submit a written and/or oral summary of the shift activities to an assessor who plays the role of the candidates watch commander.

Table top models, slides and audio cassettes are commonly used for police and fire service command simulations due to the difficulty and expense of actually staging these exercises in the field. However, where the resources are available, exercises have been conducted in the field with multiple trained role players. These more true-to-life exercises have proven to be very effective for simulating hostage negotiation and robbery investigation situations.

Other Simulation Exercises

As has been illustrated above, the common types of exercises vary considerably depending on the specific job and specific aspect of a job which is being simulated. The possibilities are virtually endless for other types of exercises. The test developer is guided by the tasks or job functions which are identified as being most critical to successful job performance (as illustrated by Table II) and is limited only by his/her imagination (and a few practical constraints).

With continued advances in technology such as computers and interactive video, we are likely to see many changes in the format and structure of exercises within the next few years. For instance, as table top computers become more common place, candidates will have to be provided with computers for information access during inbasket exercises in order to make these simulations realistic. In fact, it will not be long before the entire "inbasket" exercise (for some occupational groups) will need to be conducted via computer without the need for paper and pencils since virtually all communications on the job will be sent and received through the computer.

Interactive video technology will have a very beneficial impact on assessment technology. Currently, computer driven, video disc fire simulators are being developed by the City of Bakersfield and Kern County, California Fire Departments. While viewing a fire situation on a large screen, the impact of decisions made by the candidate are instantly seen on the screen. Similar technology can and will be developed for law enforcement training and assessment. These advances will allow very realistic incident command simulations to be produced using film footage from motion pictures, television, news files as well as video shot specifically

for the simulations. This technology also has the additional advantage of recording not only the decisions which a candidate makes, but also of recording the precise moment the decisions are made.

CONCLUSION

This monograph has described a variety of assessment methods and has stressed the importance of simulating the job as closely as possible to obtain the most accurate predictions of future job success. As mentioned earlier, all of the methods and exercises described can be used alone or in combination. However, it is important for readers to understand that even though using one or two of the methods described should be an improvement over using none, it is strongly recommended that the test developer simulate several of the most important situational contexts of the job to obtain the best overall assessment.

Each type of assessment center exercise described simulates a different situational aspect of a job. Groups typically simulate staff meetings or task force meetings (dealing with peers). Inbasket exercises simulate dealing with the paperwork of the job. Written problem analysis exercises can simulate various types of staff work or project assignments. Interview simulations usually take the form of subordinate counseling exercises (dealing with subordinates). Oral presentation exercises can be formal or informal and simulate dealing with the public, superiors, or any other important category of people encountered on the job. Command simulations can replicate emergency situations in the field which require quick, accurate decisions. If being able to perform effectively in all of these situations is important to success in a particular job, then the best test will include simulations of all of these situational contexts.

Sometimes potential candidates express the fear that they will not do well in assessment center exercises because they are not good actors. Well developed, job related exercises allow candidates to "get their teeth into" the problems they are presented and handle them the way they would in real life. If the exercises are realistic (i.e., if they seem real) then candidates do not feel like they are acting. Rather, they are simply dealing with a problem or "taking care of business."

job. Most important situational contexts encountered on that to get a good measure of an individual's skills across the to five well developed simulations are usually required necessarily good producers overall. For most jobs, three is likely to include primarily good talkers who are not component which required depth of analysis, the final list process included only oral format exercises with no assessment Of course the reverse is also true. If the assessment

supervisors of people. may produce good supervisors of paper, but not good the candidates who only work well on their own. This list final ranking, the final eligible list might include all organization used only written exercises to determine the the oral exercises such as the group discussion. If the written exercises such as the "inbasket, but "clam up" in problem solving skills (and all other skills) measured in area. For instance, a candidate may score very high on but weak in another, even in the same skill (dimension). Very often an individual will be strong in one situation, in one exercise is proficient in that skill in all situations. demonstrates a considerable amount of a particular skill than in others. You cannot assume that someone who Most people are better in some types of situations

On the other hand, if non-job related or generic, off-the-shelf exercises are used the candidate's experience can be quite different. For example, let us suppose we are conducting an assessment process to select candidates with the potential to be successful police captains. One of the exercises is an exercise within which candidates assume they are a manager in a factory that makes widgets. Candidate A who never takes anything seriously gets into the exercise "like a game." Candidate A has a lot of fun and scores quite well on the exercise. Candidate B who would make a much better police captain spends most of his/her time in the exercise trying to determine the relevance of the exercise to the duties of the police captain classification. Candidate B does not complete the exercise and scores very low. Because Candidate B was "too serious" about his/her career he/she does not pass the test.

Legal requirements should be the last reason for developing job related assessment procedures. The first reason should be common sense. If you want to know how well anyone can do anything, the closer you can get your test to match what it is you are trying to predict, the more accurate your predictions will be. The closer you can simulate the important requirements of the target job, the better your assessment process. If the test developer follows good professional practice and common sense, the assessment process should satisfy all legal requirements.

SELECTED RESOURCES

Boehm, V.R.: An assessment center practitioner's guide to the Division 14 Principles. Journal of Assessment Center Technology, 4 (3), pp. 9-14, 1981.

Byham, W.C.: Assessment centers for spotting future managers. Harvard Business Review, 48 (4), pp. 150-160, 1970.

Byham, W.C.: Assessment center method. In L.R. Bittle, J.E. Ramsey and M.A. Bittle (Eds.): Handbook for professional managers. New York: McGraw-Hill, pp. 40-43, 1985.

Cohen, S.L.: "Pre-packaged vs. tailor-made: The assessment center debate." Personnel Journal, pp. 989-991, 1980.

Davey, B.W.: Personnel testing and the search for alternatives. Public Personnel Management, 13 (4), pp. 361-374, 1984.

Equal Employment Opportunity Commission, Civil Service Commission, Department of Labor and Department of Justice: Uniform Guidelines on Employee Selection Procedures. Federal Register, 43, pp. 38290-38315, 1978.

Frank, F.D., Sefcik, J.T. and Jaffee, C.L.: The Assessment Center Process: A Participant's Workbook. Orlando, Florida: Human Resources Publishing Company, 1983.

Fitzgerald, L.F.: The Incidence and Utilization of Assessment Centers in State and Local Governments. Washington, D.C.: International Personnel Management Association, 1980.

Fitzgerald, L.F. and Quaintance, M.K.: Survey of assessment center use in state and local government. Journal of Assessment Center Technology, 5 (1), pp. 9-22, 1982.

Hinrichs, J.R.: Comparison of "real life" assessments of management potential with situational exercises, paper-and-pencil ability tests, and personality inventories. Journal of Applied Psychology, 53 (5), pp. 425-432, 1969.

Huck, J.R.: The research base. In Moses, J.L. and Byham, W.C. (Eds.): Applying the Assessment Center Method. New York: Pergamon Press, pp. 261-291, 1977.

Hurley, K., Wong, R., and Joiner, D.A.: Description of the San Francisco police captain assessment center. Journal of Assessment Center Technology, 5 (1), pp. 23-28, 1982.

Joiner, D.A.: Use of assessment centers in law enforcement promotions. Journal of California Law Enforcement, 17 (2), pp. 57-62, 1983.

Joiner, D.A.: Assessment centers in the public sector: A practical approach. Public Personnel Management, 13 (4), pp. 435-450, 1984.

Joiner, D.A.: Assessment Centers in the Fire Service (video cassette), Sacramento: Dennis A. Joiner & Associates, 1984.

Joiner, D.A.: Assessment Centers: What Are They? (video cassette), Sacramento: Dennis A. Joiner & Associates, 1985.

Mendoza, R.H., Jr. and Craig, L.: An integrated selection system for entry-level criminal justice personnel featuring the assessment center approach. Journal of Assessment Center Technology, 6 (1), pp. 1-8, 1983.

Meyer, H.H.: The validity of the in-basket test as a measure of managerial performance. Personnel Psychology, 23 (3), pp. 297-307, 1970.

More, H.W. and Unsinger, P.C. (Eds.): The Police Assessment Center, Springfield, Thomas, 1987.

O.S.S. Assessment Staff: Assessment of men. New York: Rinehart, 1948.

Ross, J.D.: Update on assessment centers: Implications for public sector selection. Review of Public Personnel Administration, 5 (3), pp. 1-8, 1985.

Sackett, P.R.: A critical look at some common beliefs about assessment centers. Public Personnel Management, 11, pp. 140-146, 1982.

Society of Industrial-Organizational Psychology, Inc.: Principles for the Validation and Use of Personnel Selection Procedures. Third Edition, College Park, Maryland, 1987.

Task Force on Assessment Center Standards: Standards and ethical considerations for assessment center operations. Journal of Assessment Center Technology, 2 (21), pp. 19-23, 1979.

Thornton, G.C. III and Byham, W.C.: Assessment Centers and Managerial Performance. New York: Academic Press, 1982.

Wollowick, H.B. and McNamara, W.J.: Relationship of the components of an assessment center to management success. Journal of Applied Psychology, 53, pp. 348-352, 1969.

ipmaac

August, 1987