DEVELOPING DIMENSION-/ COMPETENCY-BASED HUMAN RESOURCE SYSTEMS

A MONOGRAPH

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DDI®

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DIMENSIONS VS. COMPETENCIES

This monograph discusses the development and proven efficacy and effectiveness of a dimension-/competency-based systems approach to human resource activities. Before the discussion, however, it is critical to clarify an issue that centers on semantics or terminology rather than concept: dimensions vs. competencies. For Development Dimensions International (DDI), both competencies and dimensions can be defined as:

> *Descriptions of clusters or groupings of behaviors, motivations, and knowledge related to job success or failure under which data on motivation, knowledge, or behavior can be reliably classified.*

Organizations can use either term, according to their preferences. However, DDI prefers the term *dimension* to *competency* for several reasons:

- The term dimension is free of the common-usage meanings or interpretations usually attributed to competencies. While some organizations describe attributes of a job/ role as competencies, an equal number use the term to describe attributes of the organization itself (such as, the "core competency" of the Canon Corporation is Optical Technology).
- Dimensions is the term used in many scientific books and journals.
- Because the term dimension has no inherent meaning, it can be defined in ways that are more responsive to Equal Employment Opportunity Commission (EEOC) guidelines. The term competency, on the other hand, is associated with individual capability or proficiency and implies mastery of an area that might not be implied by a job/role analysis.

A DDI monograph, *Competencies and Organizational Success,* further discusses the pros and cons of the terms dimensions and competencies and describes the techniques used to define them.

Dimensions/Competencies can be derived from:

- A study of the job activities and motivations of successful and unsuccessful incumbents (traditional job analysis).
- A knowledge of the job or job level combined with a complete understanding of the vision and values of the organization (typical in rapidly changing jobs or organizations).
- A combination of the techniques described in 1 and 2.

If done properly, all three techniques can lead to behaviorally defined dimensions/ competencies.

In most of this monograph, we use both terms—dimension/competency; we hope this does not cause confusion. What is important here is the definition. We are using the definition as it stands above, and it remains the same for both dimensions and competencies.

Throughout this monograph we use only the names of specific dimensions/competencies, unaccompanied by their full definitions as they would appear in an actual human resource system or subsystem. Appendix II provides examples of complete definitions for two dimensions/competencies.

Complete, well-worded, nonoverlapping, behavioral dimensions/competencies are extremely important, and several DDI monographs address that importance. (See *Dimensions of Effective Performance for the 1990s* [1992] and *Understanding Job Analysis* [1990]). Development Dimensions International clearly distinguishes its behavior- based approach to dimensions/competencies from the more psychologically focused models sometimes used. The DDI approach to dimensions/competencies was developed to meet the EEOC's preference for content validity over construct validity to prove job relatedness (appropriateness for use) of selection or promotion criteria.

INTRODUCTION

In such diverse fields as space research, information processing, economics, medicine, and law enforcement, it is currently popular to take a "systems approach" to situations and problems. Specialists have shown that the best results are obtained when interrelated and coordinated elements are dealt with as a system rather than as single, independent elements. However, few organizations apply a systems approach to human resource activities, even though there is evidence that such an approach is effective. Many organizations have human resource training programs that encourage action in one direction and a compensation system that encourages action in another. They often have career planning or succession planning programs that don't fit with performance management or training programs. It is also common for organizations to use one set of criteria for reviewing performance in a job and a different set for selecting employees into the job.

Taking a systems approach to human resource activities results in human resource management that is far more effective and costs the organization less. Programs that are part of a system reinforce each other. Each is made better by the contributions of the others; needless overlaps and contradictions in goals or procedures are eliminated. Because all parts of the system are built on common elements, training costs decrease and managers learn each new element more quickly. Even the image of the human resources department is improved. It is seen as having defined goals and an organized program to meet them.

This monograph will explore the advantages of applying a systems approach to various human resource activities. First, we will show how all human resource activities can be organized within two systems. Second, we will examine the benefits of a dimension-/competency-based systems approach that interlocks many individual activities, such as selection, training, and performance management. Third, we will look at how a systems approach results in more accurate and reliable interviews, assessment centers, performance reviews, career planning, and succession planning and describe the training necessary to implement this approach. An important focus of this monograph will be the methodology and documentation required to make programs and systems job related and thus acceptable to the Equal Employment Opportunity Commission (EEOC) of the United States and government regulations in many other countries.

I. HUMAN RESOURCE SYSTEMS IN A CONVENTIONAL ORGANIZATION

ORGANIZING INTEGRATED HUMAN RESOURCE SYSTEMS

If one accepts the idea that an integrated systems approach to human resource activities would be advantageous, one must then face the question of how to organize such a system. Figure 1 offers some direction in making this decision. It represents a model of how work is produced and paid for in most organizations. The diagram is easy to understand if one starts with the dotted box titled "Job Performance." Obviously, job performance is what one achieves in a job. It is in a dotted box because it can be difficult to measure. Often it is really a theoretical concept. Immediately to the right of that is a box titled "Achievement of Job-Related Objectives." This is what most people mean when they talk about performance goals and standards.

On the far right in Figure 1 is a box titled "Salary and Bonus." It is tied to job performance as indicated by the achievement of objectives. The achievement of objectives is measured, and compensation is based on the degree to which achievement matches agreed-to objectives.

To the extreme left is a box titled "Job-Related Dimensions/Competencies." These are the behaviors, knowledge, and motivation required to achieve objectives, and they facilitate reaching particular objectives. For example, the manager whose objective is to successfully introduce a new product line will need many types of behavior to meet this objective. The manager must analyze the situation to determine the proper course of action, plan and organize complex activities, work with people in various capacities to achieve the objective, and so forth. The manager will also need to have knowledge of the product and the organization's product introduction process. Finally, the manager must be motivated to accomplish the task.

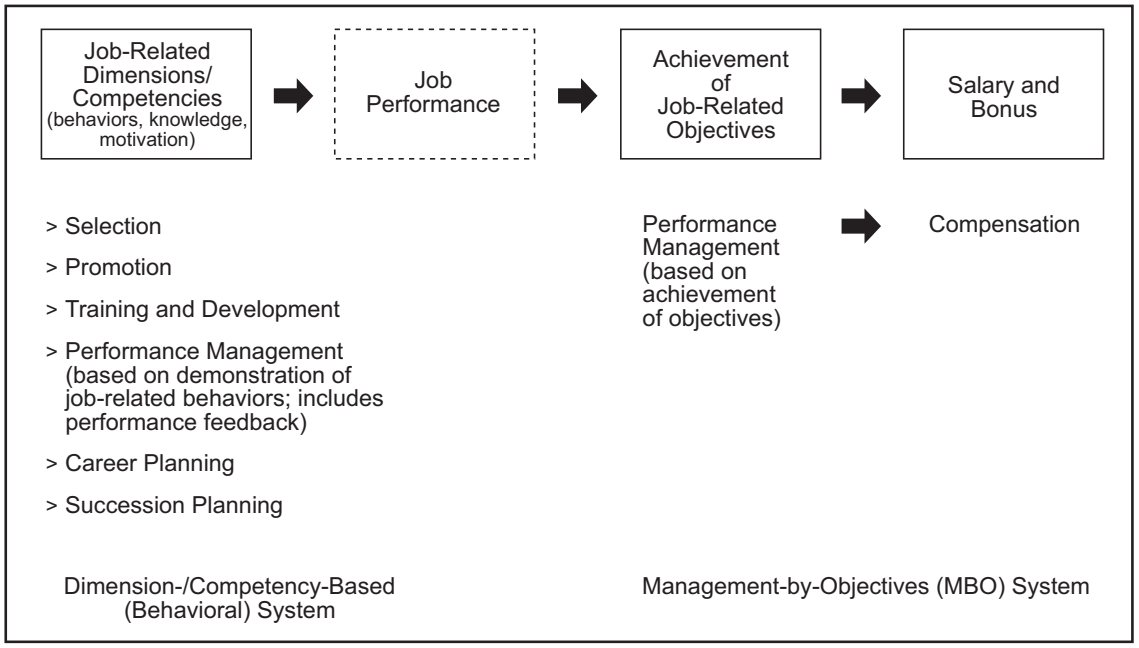


Figure 1. Two systems around which human resource activities can be organized.

Below the boxes in Figure 1 are the human resource subsystems or functions that relate to each activity. On the far right (under the "Salary and Bonus" box) is the compensation subsystem. It is tied to the objectives subsystem by an arrow, which indicates that at least part of the salary and bonus program is tied to performance.

Most of the other common human resource activities are listed under the "Job-Related Dimensions/Competencies" box. They include selection, promotion, training and development, performance management (based on demonstration of job-related behaviors and feedback on performance), career planning, and succession planning. Figure 1 illustrates that all human resource activities in a conventional organization can be placed into one of two systems:

- Objectives-based system—typical management-by-objectives (MBO).
- Dimension-/Competency-based system—using behaviors, motivation, and knowledge related to job success or failure, which can be logically and reliably clustered.

While Figure 1 might represent common relationships, there are exceptions. For example, as organizations use various types of teams more extensively, they are tying their reward systems to team, rather than individual, accomplishments. Many of these organizations then choose to reward the development of individual dimensions/competencies. Thus, in this case, an arrow could go from "Performance Management" (based on demonstration of job-related behaviors) to "Compensation."

DIMENSION-/ COMPETENCY-BASED HUMAN RESOURCE SYSTEMS

Various human resource subsystems (activities) can be built into one integrated system by relating each to a common set of defined job dimensions/ competencies. Although human resource activities should be built around dimensions/competencies, few organizations have done so. Here are some important reasons why they should:

- Dimensions/Competencies are the common link among the majority of human resource subsystems.
- The human resource subsystems, such as selection, training and development, and performance management, associated with job-related behaviors are those most commonly found to be working at cross-purposes in organizations.
- The job relatedness of human resource subsystems associated with measuring dimensions/competencies (such as selection, promotion, and behaviorally oriented performance reviews) is of particular concern to the EEOC and other agencies of the United States government.

Figure 2 illustrates a human resource system for a first-line manufacturing supervisor position organized around dimensions/competencies. The selection and performance management subsystems are built around dimensions/ competencies important to the job of a first-line manufacturing supervisor. The career planning and promotion subsystems are built around the dimensions/competencies identified as important to success at the next higher organizational level. Both of the training and development subsystems are built around the dimensions/competencies needed in the supervisor's present job and the dimensions/ competencies required to prepare him or her for a higher-level job.

	Selection Subsystem into Supervisory Position	Training and Development Subsystem	Performance Management Subsystem	Career Planning Subsystem for 2nd level	Training and Development Subsystem	Promotion Subsystem
Energy	X		X	X		X
Oral Communication	X	X	X	X	X	X
Tolerance for Stress	X		X	X		X
Leadership	X	X	X	X	X	X
Initiative	X	X	X	X	X	X
Planning and Organizing	X	X	X	X	X	X
Problem Analysis	X	X	X	X	X	X
Judgment	X	X	X	X	X	X
Oral Presentation				X	X	X
Delegation				X	X	X
Motivation/Job Fit (1st-level supervisors)	X					
Motivation/Job Fit (2nd-level supervisors)				X		X

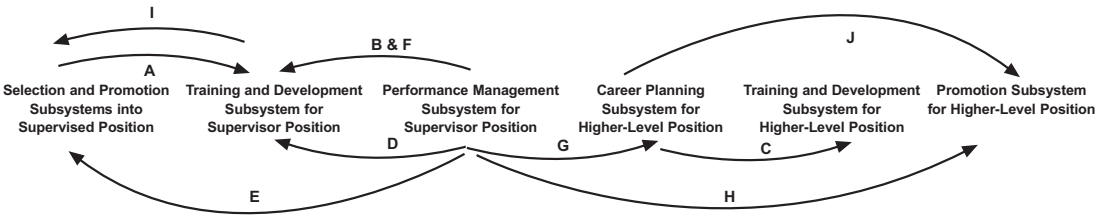
Figure 2. Dimension-/Competency-based human resource system for selection of first-level supervisors and their promotion to second-level management.

On the surface it appears that the dimensions/ competencies required in the supervisor's present position (see far left column) are very similar to those required in the second-level position. There is considerable overlap, and only three dimensions/ competencies change from list to list. (Delegation and Oral Presentation are added for the higher-level position. The definition of motivation changes across levels.) But despite the apparent similarities in dimension/competency lists for the two levels, the requirements of these positions would be quite different. For example, incumbents in both jobs must plan and organize, but the material or tasks to be planned and organized and the standards for successful planning would probably differ greatly. These differences would be reflected in how the dimensions/competencies are evaluated for each level.

Note: In all the systems, we have grouped the motivational facets defined in the job/role analysis under one dimension/competency—Motivation/ Job-Fit. In actuality, this dimension/ competency comprises a number of motivational facets, such as need for high involvement and tolerance for details. (See DDI Monograph *Competencies and Organizational Success* [1996]).

Advantages of Dimension-/Competency-Based Human Resource Systems

Figure 3 shows the synergistic relationships of the human resource subsystems shown in Figure 2; each subsystem works better because of the others. A dimension-/competency-organized human resource system has four other advantages:



A, B, and C	The selection, performance management, and career planning subsystems produce diagnostic information used for prescribing training and development activities.
D and E	The performance management subsystem provides the criteria for determining the effectiveness of the selection and training and development subsystems.
F	The performance management subsystem provides reinforcement for on-the-job application of concepts and development programs. (For example, when people take training to improve planning and organizing skills, it is important that they get on-the-job feedback on how they use these skills.)
G	The performance management subsystem provides insights into strengths and development needs that can help in career planning.
H	The performance management subsystem provides insights into making promotion decisions (to the extent the dimensions/competencies are the same in the present and higher-level positions.)
I	The training and development subsystem can provide information to help determine which dimension/ competencies should receive greatest emphasis in the selection subsystem and which to drop from consideration during selection because training after promotion covers those dimensions/competencies.
J	The career planning subsystem helps individuals decide whether they want to be considered for promotion to a particular position.

Figure 3. Synergistic relationships in an integrated, dimension-/competency-based human resource system for the position of first-level supervisor.

1. Decreased communication, training, and administration time. Managers must learn only one set of dimensions/competencies and definitions for each position. It takes less training time to install each new subsystem or program because the dimensions/competencies are understood, and major concepts, such as focusing on behavior and organizing behavior into dimensions/competencies, are used throughout.

2. Subsystems validate one another. Information from different sources can be compared. Data from one component can be used to validate the effectiveness of the others. For example, performance review ratings can easily be used to validate the effectiveness of a selection or training subsystem.

3. Subsystems reinforce one another. The use of one subsystem supports and reinforces the use of others. Using the definitions and rating scales successfully in one subsystem reminds managers of the importance of using them in other activities. For example, successfully using a performance management system organized around dimensions/competencies would reinforce using a selection system organized around dimensions/competencies.

4. The entire system and each subsystem can be validated using a content-oriented validation strategy (that is, the subsystem can be related to defined job requirements). For most organizations this is the only way that programs can meet EEOC guidelines. (See page 19.)

An example of a human resource system built around dimensions/competencies is provided in Appendix III, where the integrated system at LaRoche Industries Inc. is described.

II. DIMENSION-/ COMPETENCY-BASED HUMAN RESOURCE SUBSYSTEMS

DIMENSION-/COMPETENCY-BASED HUMAN RESOURCE SUBSYSTEMS

We have examined the efficiency of integrating selection, promotion, training and development, performance management, and succession planning and career planning subsystems into a total system built around behavioral dimensions/competencies. Now let's examine the advantages of basing the content of each of these subsystems on dimensions/competencies.

SELECTION SUBSYSTEMS

Figure 4 illustrates an example of a poorly organized selection subsystem designed to select sales engineers. (The "Xs" indicate coverage of dimensions/competencies by the elements in the selection subsystem.) Note the considerable overlap of coverage on some dimensions/competencies while other important ones, such as Technical Translation, Planning and Organizing, and Analysis, are not covered at all. Information on other critical dimensions/competencies—Resilience and Judgment—is obtained only in the reference check. The subsystem is so poorly planned that the district sales manager, for whom

	Hiring District Sales Manager Interview	Human Resources Manager Interview	Regional Sales Manager Interview	Reference Check	Health Examination
Impact	X	X	X		
Oral Communication	X	X	X		
Written Communication	X	X	X	X	
Technical Translation					
Motivation/ Job Fit	X	X	X		
Sales Ability	X	X	X		
Resilience				X	
Tenacity	X	X	X		
Ability to Learn					
Initiative	X	X	X		
Planning and Organizing					
Judgment				X	
Analysis					
Technical Engineering Skill		X			
Physical Health					X

Figure 4. Poorly planned selection "system" for collecting behavioral information (for position of sales engineer).

	Hiring District Sales Manager Interview	Human Resources Manager Interview	Regional Sales Manager Interview	Reference Check	Health Examination
Impact	X	X	X		
Oral Communication	X	X	X		
Written Communication	X				
Technical Translation			X		
Motivation/ Job Fit	X	X			
Sales Ability	X		X	X	
Resilience			X	X	
Tenacity	X		X	X	
Ability to Learn	X			X	
Initiative	X			X	
Planning and Organizing	X	X			
Judgment	X			X	
Analysis	X				
Technical Engineering Skill	X			X	
Physical Health					X

Figure 5. Selection subsystem for collecting behavioral information in which interviews and the reference check are targeted to specific dimensions/competencies and systematically assigned (for position of sales engineer).

successful candidates would work and who probably knows the most about the open position, doesn't evaluate the dimension/competency Technical Engineering Skill. Instead, it is evaluated by the human resources manager, who probably knows far less about technical areas. While the "system" in Figure 4 is typical, it makes no sense when analyzed on a dimension/competency basis.

Figure 5 shows the selection subsystem rearranged with the dimension/competency coverage assigned logically. In a subsystem like this, each interviewer can concentrate on a smaller number of dimensions/competencies, and overlap occurs only when desired.

This organized, dimension-/competency-based approach has several advantages:

- Interviewers have more time to pursue detailed information because they have a shorter list of assigned dimensions/competencies.
- Because dimension/competency targets are assigned, interviewers are less likely to miss (or fail to pursue) coverage of specific dimensions/competencies.
- There is planned overlap on critical dimensions/competencies to increase the quantity of information obtained.
- The interviewer's psychological "set" changes from the goal of making a hire/no-hire decision to obtaining behavioral information on specific dimensions/competencies.

  This change in psychological "set" prevents the interviewer from jumping to summary decisions about candidates, thus keeping the interviewer's mind more open to conflicting data. Research indicates that interviewers often "turn off" a candidate mentally once they've made a quick evaluation. As a result, they miss important information that could change their initial judgment. By focusing attention on the target dimensions/competencies rather than an overall evaluation, the interviewer must consider all available data and reserve final decision making until the information from each interviewer is shared in a data integration session.

This selection subsystem could be improved further by adding behavioral simulations, such as an in-basket and sales call simulation, and by adding paper-and-pencil tests. Behavioral simulations allow an opportunity to directly observe behavior relative to dimensions/competencies that are more difficult to cover in interviews. Simulations are very effective when the target position is different from applicants' past and present positions, and when applicants have had little work experience. Paper-and-pencil tests can add information on dimensions/ competencies such as Ability to Learn and Technical Knowledge.

Most organizations find that a dimension-/competency-based approach to selection results in much more accurate decisions and actually reduces the time devoted to making selection decisions. Multiple studies cited in a 1995 DDI *Targeted Selection*® research bulletin indicate that employee turnover commonly decreases by 50 percent and more as the result of installing a dimension-/competency-based selection system and by training interviewers. Figure 6 (page 11) illustrates a complete selection subsystem with appropriate elements assigned to dimensions/competencies.

	Hiring District Sales Manager Interview	Human Resources Manager Interview	Regional Sales Manager Interview	In-Basket and Sales-Call Simulation	Tests	Reference Check	Health Examination
Impact	X	X	X	X			
Oral Communication	X	X	X	X			
Written Communication				X			
Technical Translation			X	X			
Motivation/ Job Fit	X	X					
Sales Ability	X		X	X			
Resilience			X			X	
Tenacity	X		X			X	
Ability to Learn	X				X	X	
Initiative	X		X	X		X	
Planning and Organizing	X			X		X	
Judgment	X			X		X	
Analysis	X			X		X	
Technical Engineering Skill	X				X	X	
Physical Health							X

Figure 6. Well-planned selection subsystem for collecting behavioral information in which interviews, simulations, tests, and reference checks are targeted to specific dimensions/competencies (for position of sales engineer).

PROMOTION SUBSYSTEMS

Figure 7 shows a subsystem for promoting supervisory bank tellers to the position of branch manager. It comprises three elements: an assessment center, which elicits certain dimensions/competencies; a targeted behavioral interview, which brings out additional dimensions/competencies; and targeted behavioral observation of on-the-job performance, which brings out dimensions/competencies that can be observed in the candidates' present jobs.

The "Xs" indicate the dimensions/competencies each element will evaluate. Dimensions/Competencies are assigned to elements that most validly and reliably produce data on those dimensions/competencies. For example, Oral Communication can be observed easily in each element, so an "X" appears below all three elements. On the other hand, proficiency in Oral Presentation is observed only in an assessment center in which the candidate makes a presentation observed by assessors. No "X" appears under the Targeted Behavioral Interview column because Oral Presentation proficiency is a difficult dimension/competency for which to interview. No "X" appears under the Targeted Behavioral Performance Observation column because the candidate does not make oral presentations in his or her current position; obviously, this person's manager cannot observe and evaluate the dimension/competency. Energy can be observed best on the job and is unlikely to change if the person is promoted; therefore, an "X" appears under the Targeted Behavioral Performance Observation column.

Each element of a promotion subsystem must follow the development and validation standards defined by the EEOC Uniform Guidelines and by professional standards set forth by the Society for Industrial and Organizational Psychology (of the American Psychological Association).

The promotion subsystem illustrated in Figure 7 is acceptable to the EEOC as long as:

- The dimensions/competencies are job related and defined behaviorally.
- The elements bring out behavior related to the requirements of the target position.
- The evaluators for each element are trained in their roles and make reliable judgments.
- The data are integrated in a systematic way by people who know the target job and understand the elements of the system, the dimensions/competencies, and the rating scale.
- All candidates go through the same system.

	Assessment Center	Targeted Behavioral Interview	Targeted Behavioral Performance Observation
Oral Communication	X	X	X
Oral Presentation	X		
Motivation/ Job Fit		X	
Energy			X
Initiative	X	X	X
Sensitivity	X		X
Leadership	X		X
Analysis	X		X
Judgment	X		X
Planning and Organizing	X		X
Delegation	X		
Developing Organizational Talent	X	X	
Organizational Sensitivity	X	X	
Extraorganizational Sensitivity	X	X	
Extraorganizational Awareness	X	X	

Figure 7. Banking industry promotion subsystem for teller supervisor to branch manager position.

Using the same dimension-/competency-rating system within each subsystem enhances the effectiveness of a promotion subsystem. The decision makers who must interpret, compare, and contrast the data obtained can integrate data from each source more effectively when the same dimension/competency definitions and a standard rating system are used. Inconsistent findings become obvious.

Many promotion subsystem processes do not form a logical system. When each element taps different dimensions/competencies and uses different rating scales, the result is confusion in interpretation. Individuals often are not trained in how to collect or integrate data. And, frequently, data from some elements are given too much or too little weight.

From a legal and practical point of view, a subsystem is only as strong as its weakest link. In *State of Connecticut v. Teal* (Docket No. 80-2147), the U.S. Supreme Court indicated that each element of a selection or promotion system must be job related and reliable—even if the total system produces no adverse impact. In other words, if one element (such as the evaluation of current job performance) is invalid, the entire system can be declared invalid.

Also critical are the procedures through which information from the components is integrated. An organization can have highly trained interviewers and an extremely valid assessment center procedure, but still make inappropriate promotion decisions because the individual(s) who has the final say in integrating the data fails to weigh data from all sources.

TRAINING AND DEVELOPMENT SUBSYSTEMS

Like selection and promotion elements, training and development activities are more effective when organized into a dimension-/competency-based system. Organizing a subsystem is a three-step process.

1. Determine the dimensions/competencies for a position.
2. Diagnose training or development needs.
3. Identify the most appropriate training and development methodology for each trainable dimension/competency.

	Diagnostic Methodologies		Inside Training Programs			Outside Training Programs				
	Diagnostic Assessment Center	Multirater (360°) Instrument	Introduction to Management	Management Skills	Presentation Skills	Accounting for Non-Accountants	Finance for Non-Financial Executives	International Marketing	Management Support of Training (coaching, feedback, reinforcement)	
Oral Communication	X	X		X					X	
Oral Presentation	X	X			X				X	
Motivation/ Job Fit										
Initiative	X	X							X	
Individual Leadership	X	X		X					X	
Group Leadership	X	X		X					X	
Independence		X							X	
Analysis	X	X		X					X	
Judgment	X	X		X					X	
Creativity		X							X	
Planning and Organizing	X	X		X					X	
Delegation	X	X		X					X	
Developing Organizational Talent	X	X	X	X					X	
Financial/Analytical Ability	X	X				X	X		X	
Organizational Sensitivity	X	X	X	X					X	
Organizational Awareness	X	X	X	X					X	
Extraorganizational Sensitivity	X	X	X	X					X	
Extraorganizational Awareness	X	X	X	X					X	
Marketing		X	X					X	X	

Figure 8. Training and development subsystem for a middle management position in which training programs are targeted to specific dimensions/competencies.

Figure 8 shows a training and development subsystem comprising nine elements. The first two are diagnostic instruments. Effective training often starts with diagnoses to determine who should be trained or to provide self-insight to individuals so they will gain more from training. The two diagnostic instruments indicated are a dimension-/competency-oriented diagnostic assessment center and a multirater (360°) instrument, which obtains dimension/competency insights from questionnaires filled out by the individual, his or her manager, peers, and subordinates.

The remaining elements are training programs. They are divided into "inside" training programs conducted by the organization and "outside" programs provided by other organizations. The last column includes areas for on-the-job development.

In Figure 8 an "X" indicates that the training element can actually bring about behavior change. For most training to be effective, management must provide practice opportunities accompanied by coaching, feedback, and reinforcement. This explains the "Xs" in the Management Support column at the far right of the figure. On the other hand, dimensions/competencies considered nontrainable or too expensive to be trained have no "X" indicator.

PERFORMANCE MANAGEMENT SUBSYSTEMS

The subject of performance management is more complicated because in most organizations two separate, but highly integrated, procedures must operate concurrently. Performance management subsystems appear twice in Figure 1 (page 4). One subsystem relates to objectives and would be part of an MBO or other system that encourages setting and reviewing objectives. The other performance management subsystem appears under the column labeled "Job-Related Dimensions/ Competencies." This subsystem deals principally with job-related dimensions/competencies that a manager would observe and later refer to in coaching and reinforcing a direct report. Under such an integrated system, the annual performance review discussion features a review of the direct report's accomplishments relative to objectives and a review of the job-related dimensions/competencies that facilitated or hindered these accomplishments. The discussion ends with agreement on objectives for the coming period and commitment to improve or enhance specific dimensions/competencies.

To be effective, an organization must integrate an MBO-type system and a system of *facilitating* dimensions/competencies. When only one system is present—particularly an MBO-type system—it is likely to fail. A system based only on achieving goals and standards can produce a very sterile work environment that discourages employee development. This type of system provides people with feedback on accomplishing goals or standards and nothing on what they did to accomplish them. People who fall short of goals are encouraged to "work harder," but receive little guidance on what they must do to achieve their goals. How can individuals increase productivity or cut costs if they are already trying as hard as they can? The only way is for them to change their behavior.

Indeed, the demise of many MBO programs installed in the 1950s and 1960s can be traced to a lack of consideration of *facilitating* dimensions/competencies. People implementing these early MBO programs communicated the accomplishment (or lack of accomplishment) of objectives, but did not tell people why they accomplished or failed to accomplish them.

Facilitating dimensions/competencies are important considerations all year long—not just at performance review time. Facilitating dimensions/competencies form the basis of day-to-day feedback, coaching, and reinforcement. One cannot overestimate the psychological importance to employees of having a clear understanding of what is expected, knowing that methods of measuring performance are in place, receiving appropriate coaching and reinforcement of efforts toward the performance objectives, and receiving feedback on performance.

As indicated in Chapter 2, some performance management systems use a second type of dimension/ competency—*criterion* dimensions/ competencies. Such systems are appropriate when measurable objectives cannot encompass the entire job or when individuals work in several teams, making individual contribution difficult to identify. In these cases individuals are evaluated and paid on what they do (behavior) rather than on what they accomplish. It is important that the criterion dimensions/ competencies be understood in advance and that measurement methods be agreed upon.

A third kind of dimension/competency—known as *advancement* dimensions/competencies—is required if data on probable performance in other jobs is to be collected. Performance management systems often have a section dealing with these advancement dimensions/ competencies. This information can be integrated with interviews, tests, and assessment center information to make promotion decisions.

In these advancement situations, the use of performance review data directly parallels the use of interview and assessment center data described previously.

Three types of dimensions/competencies are used in performance management subsystems:

1. **Facilitating:** Help people achieve established, individual objectives. These are usually identified through negotiation between team leader and team member.
2. **Criterion:** Define job performance. These are usually identified through job/role analyses relative to success or failure in the job/role. They are commonly used to supplement quantitative objectives or when quantitative objectives cannot be set for a position.
3. **Advancement:** Define job performance in a higher-level position. These are usually identified through job/role analyses relative to the higher-level position.

Performance management systems, methodology, and documentation vary according to the purpose of the performance review. Selecting dimensions/ competencies that facilitate the achievement of objectives can be a very flexible, informal process. These dimensions/ competencies define areas on which the person should concentrate to meet objectives. They are agreed upon mutually when objectives are set and become the focus of feedback and coaching during the performance management period to help the person achieve the objectives.

A performance management subsystem that uses dimensions/competencies as the criterion (or one of the criteria) on which a person is evaluated (and paid) usually introduces more structure and forms. It is important that people performing the same job are evaluated against the same criteria and that the evaluators' evaluations are reliable.

Criterion dimensions can also come from the organization's vision and values. In this case a set of dimensions/competencies related to the vision and values is a required part of all employees' performance reviews.

When the object of the performance management subsystem is to evaluate a person for a higher-level position, a special performance form is often designed. The manager/leader completes this form with full knowledge that the information is to be used only as part of a promotion subsystem and is unrelated to pay. This usually produces more accurate evaluations of potential. We have already noted how this type of performance review information can be an important part of a promotion subsystem.

Most performance management subsystems have only one element: a review by the immediate manager. However, more and more organizations are obtaining performance review information from others, such as the reviewee's coworkers or "internal clients." In this case a more complex system must be established in which each reviewer is assigned only those dimensions/competencies he or she has had an opportunity to observe.

CAREER PLANNING AND SUCCESSION PLANNING SUBSYSTEMS

Career Planning

Career planning is increasingly important as organizations rely more heavily on individuals to be responsible for their own careers. At the same time, organizations are making career planning much more difficult because career paths are more unclear and certainly more complicated. Old, hierarchical routes to success are long gone in many organizations that have flattened and consequently offer fewer promotional opportunities. Career planning in flattened organizations involves many lateral moves and more involvement in short- and long-term team activities. Figure 9 illustrates these two career planning paths.

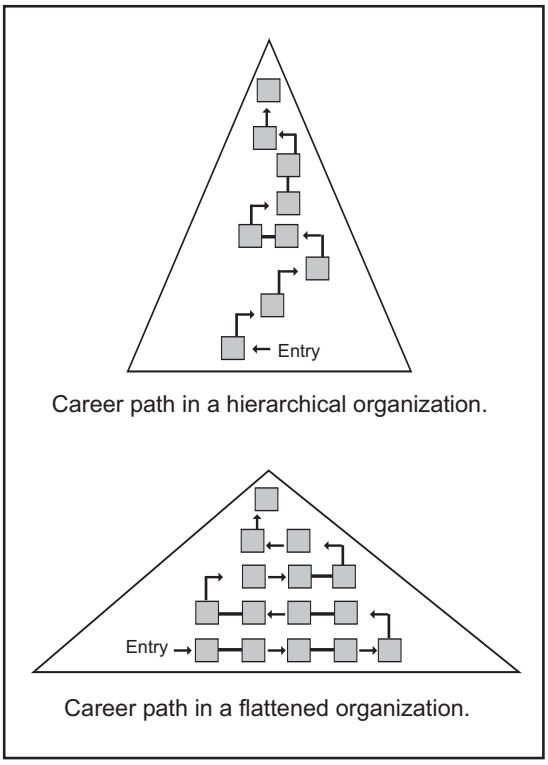


Figure 9. Two career planning paths.

An integrated dimension-/competency-based human resource system can dramatically aid career planning. In such a system:

- All jobs are described by dimensions/competencies.
- Employees have access to the dimension/competency descriptions.
- Employees have a way of evaluating themselves relative to dimensions/competencies; for example, through a dimension-/competency-based performance management system and/or information obtained from a multirater (360°) instrument.
- Employees can match their proficiency in dimensions/competencies with the dimensions/competencies and proficiency requirements of various jobs.
- Based on the match, employees can apply for a job, define self-development goals in order to prepare them for the job, or consider other job opportunities.

A number of organizations now have kiosks where people can survey job opportunities defined through dimensions/competencies and consider appropriate alternatives.

The use of a dimension-/competency-based system has also led many individuals to develop a learning path through their organization rather than a career path. A learning path sets forth the dimensions/competencies required for a high-level job or for further employability within or outside the organization. It then determines learning subgoals to achieve proficiency in those dimensions/competencies.

Succession Planning

Succession planning is also aided by a human resource system based on dimensions/competencies. In such a system all the data on individuals fit together, and patterns emerge that might allow certain individuals to stand out or direct others toward individual development needs.

Similar to individual career planning, changes in organizational hierarchy and the greater fluidity of movement—both horizontally and vertically—in organizations have made succession planning much more difficult. No longer can one plot an individual's orderly progression up the organizational ladder; backups for jobs are difficult to discern. In many organizations most of the conventional, organizational backup learning positions, such as "assistant to" and "deputy," have been eliminated.

As partnerships with clients and vendors proliferate, and as international operations become more dominant, the volume of information individuals need to do their jobs is increasing. As a result, succession planning has taken a direction similar to that of career planning—organizations increasingly are focusing planning around dimensions/competencies. Organizations define the dimensions/competencies required for levels in the organization and work to develop people's skills in them. The dimensions/competencies can be developed in a variety of jobs, not necessarily in specific jobs directly subordinate to other specific jobs.

III. ESTABLISHING THE JOB RELATEDNESS OF HUMAN RESOURCE SUBSYSTEMS

INTRODUCTION: THE EEOC AND JOB RELATEDNESS

The United States Supreme Court, the Equal Employment Opportunity Commission, and other government agencies have affirmed the need to make human resource subsystems job related and to avoid non-job-related procedures that might discriminate unfairly against protected classes. Establishing the job relatedness of selection, performance management, and promotion procedures is particularly important. The EEOC and other government agencies have issued guidelines on establishing job relatedness (validity) for these subsystems.

For most organizations the most common and only practical method of establishing job relatedness is a content-validity approach. However, there has been considerable confusion and controversy about whether a content- or construct-validity methodology is the appropriate measure of the job relatedness of subsystems built or based on dimensions/competencies. One contention asserts that dimensions/competencies are constructs, while others question the appropriateness of a content-validity strategy under any circumstances. The EEOC's Uniform Guidelines on Employee Selection Procedures itself is ambiguous on the topic. Section XIV of this EEOC publication states:

> *…A selection procedure based upon inferences about mental processes cannot be supported solely or primarily on the basis of content validity. Thus a content strategy is not appropriate for demonstrating the validity of selection procedures which purport to measure traits or constructs such as intelligence, aptitude, personality, common sense, judgment, leadership, dexterity and spatial ability.*

However, Question and Answer No. 75 of the questions-and-answers section of the Uniform Guidelines, prepared by EEOC staff to help explain the guidelines, reads as follows:

> *Q: Can a measure of a trait or construct be validated on the basis of content validity?*
>
> *A: No. Traits or constructs are by definition underlying characteristics which are intangible and are not directly observable. They are, therefore, not appropriate for the sampling approach of content validity.* ***Some selection procedures, while labeled as construct measures, may actually be samples of observable work behaviors. Whatever the label, if the operational definitions are, in fact, based upon observable work behaviors, a selection procedure measuring those behaviors may be appropriately supported by a content validity strategy*** *(emphasis added). For example, while a measure of the construct "dependability" should not be supported on the basis of content validity, promptness and regularity of attendance in a prior work record are frequently inquired into as a part of a selection procedure, and such measures may be supported on the basis of content validity.*

In 1987 the Society for Industrial and Organizational Psychology of the American Psychological Association (APA) issued selection guidelines that deal with content-validity theory. The APA Guidelines provide unprecedented support and guidance for a content-validity strategy.

Development Dimensions International has used the content-validity approach to develop selection, promotion, and performance management subsystems for the EEOC itself, in programs for more than 20 federal agencies, and in several situations in which development of the selection system was supervised directly by a federal court. The author, therefore, feels strongly that a content-valid systems approach is legally acceptable.

DEVELOPING CONTENT-VALID HUMAN RESOURCE SYSTEMS

We will now consider how the use of behavior to predict behavior produces more accurate and reliable judgments and results in a legally defensible process that can be used in interviews, assessment centers, and performance management subsystems. First we will describe the procedures for establishing the content validity of these programs and then discuss the training activities that are inherent in promulgating them.

CONTENT-VALID INTERVIEWING SUBSYSTEMS

Figure 10 represents how a content-valid, dimension-/ competency-based interviewing process works. The "Bs," "Ms," and "Ks" on the left side of the figure stand for the behaviors, motivation, and knowledge associated with success and failure in a particular job as indicated by a job/role analysis. The behaviors, grouped in terms of common inputs and outputs, are labeled as dimensions/competencies. The right side of the figure shows interview dimension/competency targets that correspond to those identified in the job/role analysis; they indicate the areas in which the interviewer intends to gather information. In a behaviorally based interviewing system, the interviewer asks questions about the applicant's past behavior to fill each target area with specific examples.

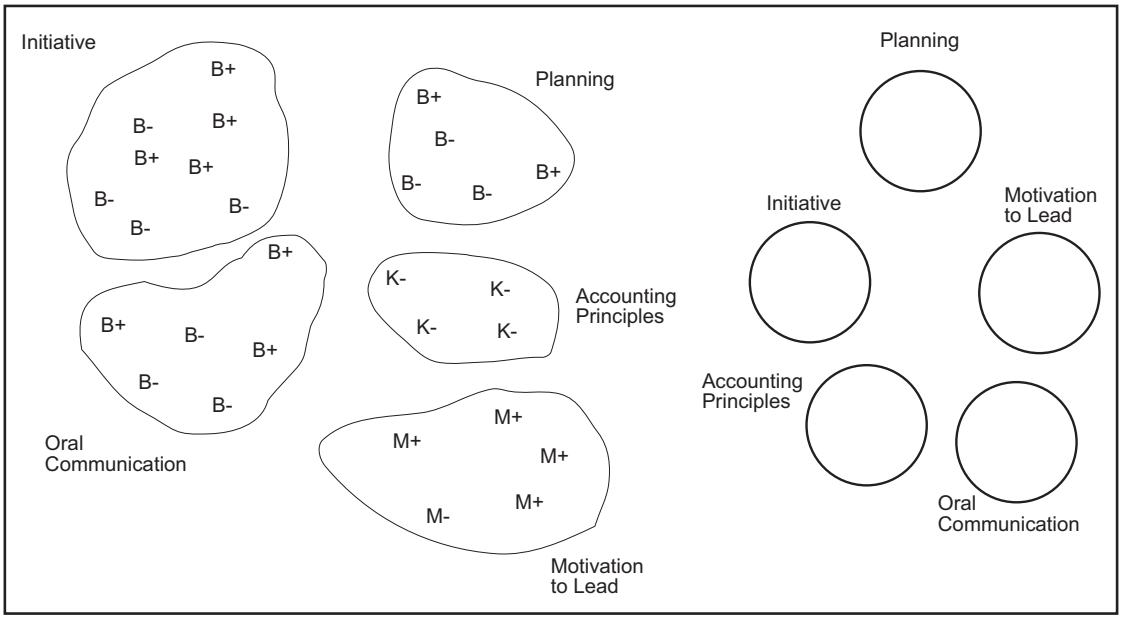


Figure 10. Planned targets for an interviewer, based on job/role analysis data.

Figure 11 shows the dimension/competency targets filled with examples of past behaviors, knowledge, and motivation. In the final step, the interviewer relates the behaviors, knowledge, and motivation obtained in the interview to the desired future behaviors, knowledge, and motivation as defined in the job/role analysis. If behaviors, knowledge, and motivation noted in the applicant's past are the same types of behaviors, motivation, and knowledge required in the job for which the person is being considered, there's a good chance he or she will succeed in that job.

It is important that the encircled areas be filled with true examples of behaviors, knowledge, and motivation. This will not happen by chance nor through normal interviewing procedures. The interviewer must be trained to skillfully elicit and pin down data that illustrate the targeted dimensions/competencies. The goal is to obtain documented examples of past behaviors, knowledge, or motivation in sufficient quantities to be able to judge the degree to which applicants possess the dimensions/competencies necessary for success in the job/role.

The documentation required to defend the content validity of such an approach includes descriptions of the:

- Procedures used to determine the required dimensions/competencies (job/role analysis report).
- Interviewer training and certification programs (assuring that background behavioral data is collected properly and categorized and evaluated accurately).
- Procedures used to monitor the accuracy of predictions of future performance.
- Selection or promotion subsystem of which the interview is a part.

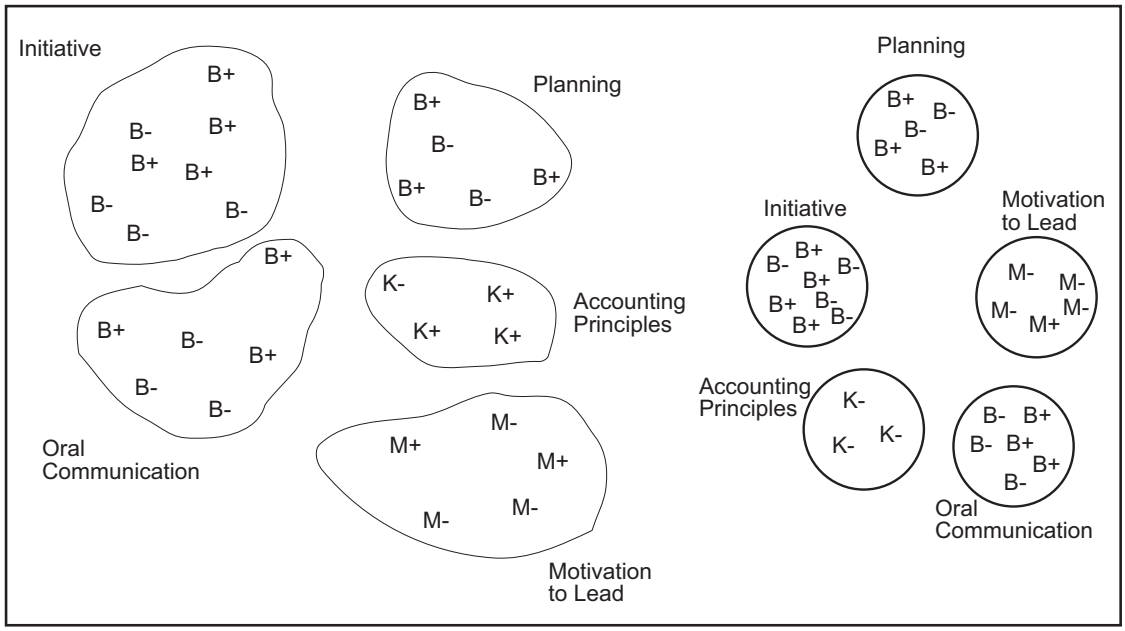


Figure 11. Establishing a connection between behavior obtained in an interview and behavior found in the job/role analysis.

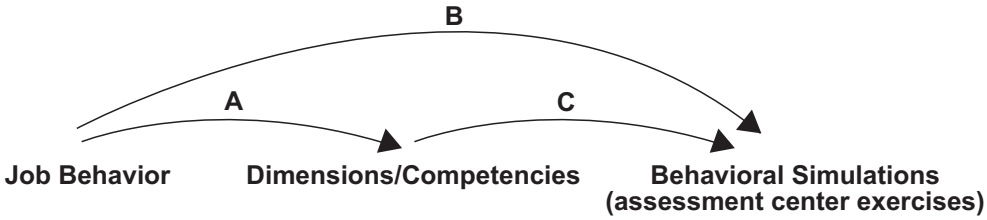
CONTENT-VALID ASSESSMENT CENTERS

Figure 12 illustrates the relationships that must be documented to establish the content validity of an assessment center. Developing a content-valid assessment center is similar to developing a content-valid interviewing system. The behavioral dimensions/competencies identified in the job/role analysis become targets for obtaining behavior from assessees. However, instead of obtaining behavior through interviews about past behavior, assessors obtain behavioral data by observing applicants in specially designed simulations.

In developing a content-valid assessment center, the content validity of the simulations used must be established. To be content valid, the simulations must reflect the types, complexity, and difficulty levels of activities required in the job.

The documentation required to defend the content validity of an assessment center includes descriptions of:

- Procedures used to establish the dimensions/competencies (job/role analysis report).
- Procedures used to establish the behavioral simulations used in the assessment center (job/role analysis report).
- Assessor training and certification program.
- Procedures used to administer the assessment center.
- Procedures used to monitor the accuracy of future performance predictions.
- Selection or promotion system of which the assessment center is a part.



A Dimensions/Competencies must be job related and describe all common and important parts of the job.

B Exercises must be job related and represent the most common and significant job actitivies. They also must be comparable in complexity and difficulty to activities required on the job.

C Dimensions/Competencies must be observable in the exercises.

Figure 12. Relationships that must be documented to establish the content validity of an assessment center.

CONTENT-VALID PERFORMANCE MANAGEMENT SUBSYSTEMS

As indicated earlier in this monograph, there are no EEOC implications with an objectives-based performance management subsystem as long as the objectives represent major job functions and as long as the performance management subsystem is administered consistently. MBO objectives define the job and thus are job related. Similarly, the EEOC has little interest in the use of *facilitating* dimensions/competencies, provided they are used only for guidance, coaching, feedback, and reinforcement and are not directly linked to pay.

Establishing the content validity of a performance management subsystem targeted to *criterion* dimensions/competencies and *advancement* dimensions/competencies is more complicated. Criterion dimensions/competencies must be identified carefully, and the reliability and accuracy of raters assured. Pay and other important decisions depend on these ratings. Criterion dimensions/competencies may be defined through a job/role analysis, but their content validity rests on management judgment. Management has the right to define job success, and they do this by establishing criterion dimensions/competencies. "Integrity" is a common criterion dimension; it is usually better demonstrated through behavior than results.

The same job/role analysis that serves as the basis for a promotion subsystem can define advancement dimensions/competencies. One starts with the dimensions/competencies for the target job or job level and then determines which of these can be observed in the present job. This decision usually is based on expert judgments of observability that are obtained as part of the job/role analysis process. After the target dimensions/competencies are defined, a performance review form used to gather observed behavior relative to each target dimension/competency is developed and administered to individuals who have observed or managed the ratee.

Managers often find it difficult to rate advancement dimensions/competencies reliably because they might not fully understand the criteria for success in the target position. The target position might well be in a different department or at a higher level in the organization than their own.

As one would expect, to be effective, raters need good models of completed forms and must be trained to record and categorize behavior reliably and accurately. When judgments are particularly important, ratings can be made more precise by having a second person ask the rater questions to get him or her to illustrate ratings and support them behaviorally. Behaviorally anchored rating scales (BARS) can sometimes be effective in helping the rater understand requirements and standards in the higher-level jobs.

The documentation required to defend the content validity of an advancement performance management subsystem includes descriptions of the:

- Procedures used to establish the dimensions (job analysis report).
- Training and certification programs for those conducting performance reviews (assuring that behavior observed on the job is collected properly and categorized and evaluated accurately).
- Procedures used to conduct performance reviews.
- Procedures used to monitor the accuracy of future performance predictions.
- The promotion system of which the performance review is a part.

IV. TRAINING

TRAINING IS A MUST

Training is critical to prepare users to properly implement the behaviorally based interviewing and performance management subsystems and assessment centers described in this monograph. Managers using any of these subsystems must know:

- The difference between behavioral information and nonbehavioral information.
- Methods of gathering behavioral information (such as interviewing for examples of behavior, creating opportunities to observe behavior on the job, and observing behavior).
- How to classify behavior by dimensions/ competencies.
- Evaluation standards.
- Common rater errors and how to avoid them.
- How to share and integrate data.

If present and past behavior are to be used to predict behavior, the people using behaviorally based systems must be skilled in gathering and using behavioral information. Simply knowing what is required is not enough. Without training, an interviewer is unable to draw out enough examples of past behavior from applicants to make an accurate decision on a dimension/ competency. Similarly, without training, an assessor would have little success in observing and recording behavior in a behavioral simulation, and a manager would find it difficult to observe on-the-job behavior and use this information effectively.

Evaluating (rating) behavior is a skill that can and must be developed in a training program. With sufficient training, people can reliably and accurately evaluate behavior on a wide range of dimensions/competencies.

Skills-based training, which offers a number of opportunities to practice skills and receive feedback on their use, also is a must. Such training usually features a combination of paper-and-pencil and experiential situations.

	Targeted Behavioral Interview	Assessment Center	Targeted Performance Review
Dimension/Competency Understanding	X	X	X
Difference Between Behavior and Nonbehavior	X	X	X
Interviewing for Behavior and Knowledge	X		
Interviewing for Motivation	X		
Observation of Simulation	X (if used)	X	
On-the-Job Observation			X
Data Classification by Dimensions/Competencies	X	X	X
Evaluation Standards	X	X	X
Data Integration	X	X	X

Figure 13. Training required to implement common human resource subsystems.

Skills build on one another; therefore, after training in one skill (such as interviewing), skill development in another (such as assessment centers) takes much less time. A person who receives behavioral interview training must learn only a new source of data (observation of simulations or job). All the other skills are the same. (See Figure 13.)

The success of behaviorally based and documented selection, interviewing, assessment, and performance management subsystems is based on training. Without adequate training, no amount of effort to construct a content-valid system will succeed.

Training is also important to help interviewers reliably evaluate candidates' job-fit motivation. DDI uses the following definition of job-fit motivation:

> *The extent to which activities and responsibilities available in the job are consistent with activities and responsibilities that result in personal satisfaction; the degree to which the work itself is personally satisfying.*

The motivational aspects of most jobs can be categorized into 21 facets, a few of which are fast work pace, achievement, and primacy of work. Interviewers must be trained to interview for and evaluate the importance, in a positive or negative sense, of each facet found to be present in the target job.

CONCLUSIONS

This monograph has discussed the development of a content-valid human resource system. The following points have been made:

1. The major human resource subsystems (selection, promotion, training and development, performance management, career and succession planning, MBO, and compensation) must be organized into a cohesive, total system.
2. There are two bases upon which to develop systems: (1) objectives and (2) dimensions/competencies. Organizations benefit most from using both systems.
3. Organizing subsystems using a common set of dimensions/competencies and rating scales produces substantial benefits because the subsystems reinforce one another in the total system. This reduces training time and expense and makes implementation and follow-through efforts more effective.
4. The elements within a human resource subsystem also benefit from a systems approach. Because each element in the subsystem can be built around a common set of dimensions/competencies and rating scales, the entire subsystem becomes more efficient and effective.
5. Organizing subsystems and the elements within them around dimensions/competencies and basing them on the concept that past and present behavior forecast future behavior leads to more accurate predictions. Behavioral examples from different sources (such as direct observation and interviews) are related to the behavior required on the job. This provides an accurate prediction of future job-related behavior.
6. It is possible to apply a content-validity strategy to the development of interviewing and performance management subsystems and assessment centers, thereby meeting EEOC and other requirements.
7. Managers must be trained before they implement any behaviorally based program. Because behaviorally based systems require similar skills, managers trained to implement one program, such as interviewing, can be trained easily to implement others. The result is flexibility, efficiency, and cost reduction.

APPENDIX I: TYPICAL MANAGEMENT DIMENSIONS/COMPETENCIES

Category	"Traditional" Supervisor	Manager	Upper-Level Manager
Leadership/Influence	Individual Leadership (Influence) Meeting Leadership (Facilitation) Sensitivity	Strategic Leadership Developing Organizational Talent Individual Leadership (Influence) Meeting Leadership (Facilitation) Sensitivity	Visionary Leadership Strategic Leadership Developing Organizational Talent Individual Leadership (Influence) Meeting Leadership (Facilitation) Sensitivity
Decision Making	Analysis (Problem Identification) Judgment (Problem Solution)	Analysis (Problem Identification) Judgment (Problem Solution)	Analysis (Problem Identification) Judgment (Problem Solution)
Performance Management	Follow-Up Maximizing Performance	Delegating Authority and Responsibility Follow-Up Information Monitoring Maximizing Performance	Delegating Authority and Responsibility Follow-Up Information Monitoring Maximizing Performance
Communication	Oral Communication	Oral Communication Oral Presentation Listening Written Communication	Oral Communication Oral Presentation Listening Written Communication
Personal	Initiative Customer Service Orientation Ability to Learn (Applied Learning) Energy Self-Assessment Self-Confidence	Initiative Long-Range Goal Orientation Tolerance for Stress Customer Service Orientation Energy Self-Assessment Self-Confidence	Initiative Long-Range Goal Orientation Tolerance for Stress Impact Customer Service Orientation Adaptability Range of Interests Energy Tenacity Self-Assessment Self-Confidence
Knowledge Skills	Technical/Professional Knowledge		

APPENDIX II: EXAMPLE DIMENSION/ COMPETENCY DEFINITIONS

Following are definitions of two dimensions/ competencies from a large list that would provide the base for selection and promotion subsystems.

BUILDING TRUST

Developing other people's confidence through consistent action, values, and communications; maintaining commitments or personal contracts, including meeting times, work assignments, support/ assistance, compensation, and other agreed-upon actions.

KEY BEHAVIORS

Building and Maintaining Relationships

- Cares about others' feelings and concerns.
- Listens and responds with empathy to associates' feelings.
- Says or does things that maintain or enhance self-esteem.
- Asks associates for help and encourages their involvement.
- Makes associates feel confident about their judgment and abilities.

Constancy

- Ensures consistency in words and actions.
- Keeps promises and commitments.
- Behaves consistently so that people know what to expect.
- Does not involve others when dealing with personal frustrations.

Openness

- Discloses thoughts, feelings, and rationale.
- Allows associates to express themselves without risk.
- Makes people feel comfortable about discussing barriers they face.
- Helps others resolve mistakes.
- Encourages associates to question actions or ideas.

Representation of Others

- Gives associates credit rather than taking credit for their ideas.
- Champions associates to others.

CHAMPIONING CONTINUOUS IMPROVEMENT

Continuously seeking (or encouraging others to seek) opportunities for different and innovative approaches to address organizational problems and opportunities; facilitating the use of knowledge or help from outside the workplace (from the larger organization or outside the organization) to identify potential problems or improvement opportunities; advocating the need for self or others to seek a better way to address work-process issues.

KEY BEHAVIORS

Identifying Opportunities

- Encourages people to continue asking "Why?" until the root cause is discovered.
- Encourages others to question established work processes or assumptions.
- Treats problems as opportunities for process improvements.

Reinforcing Continuous Improvement

- Recognizes and celebrates new ideas that are implemented successfully.
- Makes changes readily when implemented ideas don't work.
- Recognizes and uses good ideas from sources outside immediate work group to solve problems.

Supporting

- Models "thinking outside the boundaries" when approaching problems.
- Remains open to ideas other than own.
- Understands stakeholders' issues and helps associates involve stakeholders in improvement opportunities.

APPENDIX III

LAROCHE INDUSTRIES INC.—AN INTEGRATED HUMAN RESOURCE SYSTEM

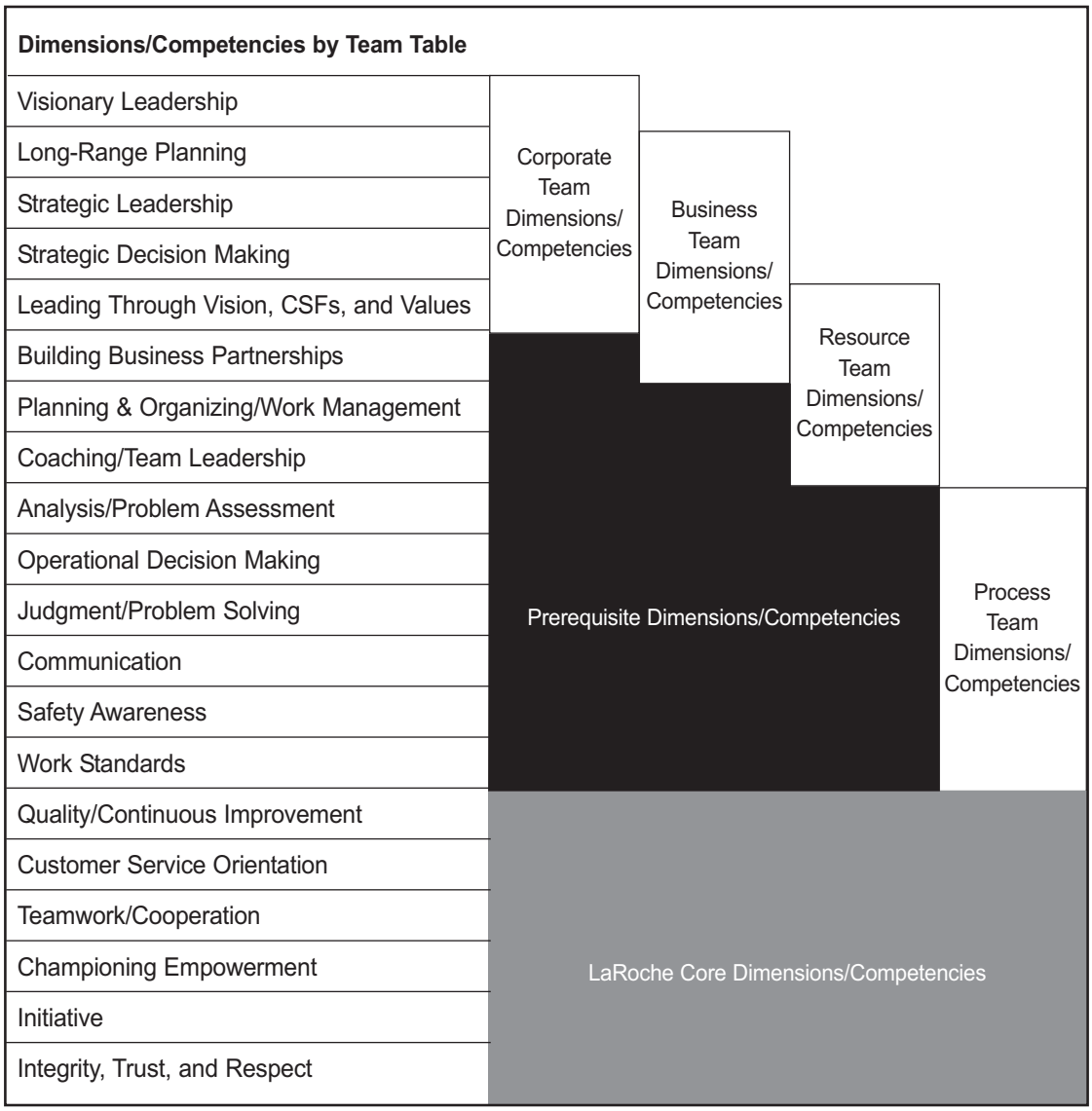
LaRoche Industries Inc., a major Atlanta-based chemical manufacturing company with plants nationwide, has been developing an integrated human resource system since 1993. Under the leadership of CEO Grant Reed and the direction of David Lillback, corporate director of human resources, LaRoche utilized job analysis information to develop an integrated, dimension-/competency-based HR system that includes selection, appraisal, training, and planning subsystems. These initiatives have been driven by the need to enhance LaRoche's competitiveness by forging a high-involvement, team-based culture.

Dimensions/Competencies by System Table

	Training Modules	Selection	Performance Management
Visionary Leadership	X	X	X
Long-Range Planning		X	X
Strategic Leadership	X	X	X
Leading Through Vision, CSFs, and Values	X	X	X
Building Business Partnerships	X	X	X
Planning & Organizing/Work Management	X	X	X
Coaching/Team Leadership	X	X	X
Analysis/Problem Assessment	X	X	X
Operational Decision Making		X	X
Judgment/Problem Solving	X	X	X
Communication	X	X	X
Safety Awareness		X	X
Work Standards	X	X	X
Quality/Continuous Improvement	X	X	X
Customer Service Orientation	X	X	X
Teamwork/Cooperation	X	X	X
Championing Empowerment	X	X	X
Initiative	X	X	X
Integrity, Trust, Respect	X	X	X

This chart illustrates the dimensions/competencies employed by each LaRoche HR subsystem.

LaRoche Industries Inc.



This chart illustrates dimensions/competencies for different groupings of employees.

To support its corporate growth strategy, LaRoche is building its compensation, career planning, and succession planning systems around dimensions/competencies.

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DDI has identified competency profiles for more than 5,000 organizations and developed a competency taxonomy that describes the competencies most often found at various organizational levels. Every DDI program or system is based on this taxonomy of dimensions/competencies. This integrated approach helps multinational organizations link areas such as hiring, training and performance management. For additional information about Development Dimensions International, call 1-800-933-4463.

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