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An Evaluation of the Competency Modeling Method Used by a Major Telecommunications Company

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A Culminating Project Presented to the Faculty of the Graduate School of Lindenwood University in Partial Fulfillment of the Requirements for the Degree of Master of Science in Human Resource Management

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ABSTRACT

This thesis focuses on competency model development methods and evaluating an actual competency model development method used by a consulting company on behalf of its client.

As HRD professionals get down to actually measuring human performance against the model they set forth to specify competency and its associated behaviors, they often find behavioral measurements to be subjective and relative, rather than objective and criterion-based.

The purpose of this study is to review competency model definitions and development methods, as well as the implications for using competency models to improve human performance, business results and competitive advantage.

The competency model development method implemented by a consulting company on behalf of its telecommunications client is evaluated against the competency model development methods identified in the literature. The telecommunications company needed to reorganize and streamline its organization to create a competitive advantage in a highly competitive industry.

Downsizing and staffing churn added to the need to provide necessary skills and knowledge faster, with increased performance factors, and at reduced cost. The consulting company's approach to developing competency models for the client emphasized alignment with business strategy and continuous improvement.

Two evaluators were selected based on their experience and expertise in the training and human resource development field. Each evaluator was asked to review background information on competency model development methods and evaluate the telecommunications company's actual competency model development method by completing a prepared questionnaire. After completing the questionnaire, the evaluators discussed their evaluation during a follow-up phone interview.

Both evaluators found that the competency model development method used by the consulting company's telecommunications client was appropriate. Questions were raised regarding criteria for high performer selection and methods to ensure that performers participating in the competency model development process understand "future state" requirements.

COMPETENCY MODEL DEVELOPMENT METHODS

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An Abstract Presented to the Faculty of the Graduate School of Lindenwood College in Partial Fulfillment of the Requirements for the Degree of Master of Science in Human Resource Management

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Chapter 1

INTRODUCTION

Competency Models and Their Development Methods

The terms "competency" and "competency model" have meant different things to different human resource development(HRD)professionals for just about as long as the terms have been used in the human resource development field. Even when HRD practitioners agree on the definition of "competency," their application of the term and developmental approaches for "competency models" may still differ. And, finally, when HRD professionals get down to actually measuring human performance against the model they set forth to specify a competency and its associated behaviors, they often find behavioral measurements to be subjective and relative, rather than objective and criterion-based.

In spite of these disagreements and difficulties, there has been significant attention paid to competencies and competency modeling. The focus of this paper is to define what are they, and how they are identified, developed and measured. The benefits provided by these data will also be examined.

Some HRD professionals make claims regarding the usefulness of competency modeling, and many large U.S.-based corporations have adopted competency modeling as the basis for human resource functions including recruitment/selection/hiring, training, compensation and reward systems, and strategic planning. Competencies and competency modeling have even gained attention in Europe. For example, Graeme Currie and Roger Darby, in the Journal of European Industrial Training, discuss Edward Lawler's views on the subject: "Lawler saw there was one compelling reason for adopting a skill or competence-based approach: to create a competitive advantage, because it leads to an organization performing better" (13).

A starting point for understanding the wide-spread attention that competency modeling has attained over the years is to review common competency model definitions and their implications for using competency models to improve human performance, business results, and competitive advantage. Then, the methods for developing competency models can be discussed.

Competency Model Definition

Mr. Ron Zemke, author of "Job Competencies: Can They Help Design Better Training?," summarizes the HRD dilemma regarding competencies and competency model definitions this way:

> Competency, competencies, competency models, and competency-based training are Humpty Dumpty words meaning only what the definer wants them to mean. The problem comes not from malice, stupidity or marketing avarice, but instead from some basic procedural and philosophical differences among those racing to define and develop the concept and to set the model for the way the rest of us will use competencies in our day-to-day training efforts. (28)

Despite the dilemma, the June 1995 issue of Supervisory Management stated:

> More and more companies are looking beyond the results of managerial efforts to determine the knowledge, skills, abilities, even traits and motivations critical to achieving strategic objectives. The technique is called competency modeling, and it is one of the hottest corporate management subjects today. (1)

Competency-based thought began with the work of internationally renowned psychologist David McClelland at Harvard University in the early 1970s (Dubinski 31) (von Daehne 34). Based on McClelland's work, Richard Boyatzis presented a foundational definition of competencies in 1982, which has changed little over the

years. Boyatzis defined a job competency as "an *underlying* characteristic of an employee (i.e., motive, trait, skills, aspects of one's self-image, social role, or a body of knowledge) which is *causally* related to *effective* and/or *superior* performance in a job" (20-21). "Threshold" or "essential" competencies are required for minimally adequate or average performance. "Differentiating" competencies distinguish superior from average performers (23).

In 1987, Bard et. al. presented this definition for competencies given by the American Society for Training and Development, 1983: "Competencies are, in essence, the knowledge, skills, and attitude clusters that enable one to perform a certain role, job, or task" (249). As commonly understood in HRD, a competency model portrays a repertoire of skills and requisite abilities and personal qualities as they relate to the specific demands of a certain job (250).

By the year 1990, the definition of competencies still stated that "(c)ompetencies include the knowledge, skills, behaviors, personal traits, and other attributes that cause or predict outstanding job performance" (Dubinski 29).

Hay/McBer Research Press, in 1990, summarized HRD's understanding of competencies, which was still largely based on the foundational work of Boyatzis, as follows:

> Competencies can be motives, traits, self-concepts, attitudes or values, content knowledge, or cognitive or behavioral skills – *any individual characteristic that can be measured or counted reliably and that can be shown to differentiate significantly between superior and average performers,* or between effective and ineffective performers. (6)

In 1993, Spencer and Spencer defined competency as "an *underlying characteristic* of an individual that is *causally related* to *criterion-referenced effective and/or superior performance* in a job or situation" (9).

In 1995, Samuel H. Marcus, a managing partner at Brecker & Merryman, a New York-based organization, HR, and communications consulting firm, was quoted as presenting a definition similar to that of William Rothwell's in that a competency is a set of "underlying characteristics of an employee that lead to successful performance" (Stone 1). And, that same year, Human Resource Professional featured an article stating that, "(w)hile there is some controversy concerning the definition of the word "competency," a reasonable one might be those knowledge, skills, abilities, and behaviors required for the successful performance of job duties" (Mirabile 13).

After evaluating all competency definitions, the definition provided by Spencer and Spencer is the one adopted for this paper. This complete definition states that

> a competency is an *underlying characteristic* of an individual that is *causally related* to *criterion-referenced effective and/or superior performance* in a job or situation.
>
> *Underlying characteristic* means that the competency is a fairly deep and enduring part of a person's personality and can predict behavior in a wide variety of situations and job tasks.
>
> *Causally related* means that a competency *causes* or *predicts* behavior and performance.
>
> *Criterion-referenced* means that the competency actually predicts who does something well or poorly, as measured on a *specific criterion* or standard. Examples of criteria are the dollar volume for salespeople or the number of clients who "stay dry" for alcohol-abuse counselors. (9)

Regarding competency model definitions, very few definitions were found. Since the definition presented by David DuBois in 1993 is consistent with the foundational work done by Boyatzis in 1982, as well as the competency model definitions presented over the years, and the competency definition selected for this paper, the DuBois competency model definition is the one selected for this paper. It states,

> A competency model includes *those competencies that are required for satisfactory or exemplary job performance*

> within the context of a person's job roles, responsibilities and relationships in an organization and its internal and external environments (adapted from Boyatzis, 1982). (9)

Having reviewed definitions for competency and competency models that date from the first discussion of these topics in the early 1980s through the most recent discussions in 1997, it appears that the definitions themselves have not changed. Even though confusion among HRD practitioners regarding competencies and competency models remains, interest in attaining the many foreseen benefits is high. In spite of the confusion, HRD practitioners are still very interested in competencies and competency models.

Since the definitions are not the problem, the problem must lie in how the definitions are operationalized, or applied in actual use. Accordingly,

> (t)he professional literature provides little help to those who need to understand, plan, create, implement, and evaluate effective and efficient competency-based performance improvement systems. Zemke (1982) put it this way: "For all the rhetoric about the benefits of competencies and competency-based training, few working trainers are exactly sure what the experts mean when they start praising and promoting competencies" (p. 28). The situation does not appear to have significantly improved over the past ten years, despite a growing interest in competency-based programs. (12)

HRD practitioners are still working with competencies and competency models even though the definitions do not clearly lend themselves to operational testing. Today, large corporations adopt competency modeling as their strategic HRD approach, trying to capitalize on the many foreseen benefits. Their success and effectiveness varies.

The Situation/Need for Research in Competency Model Development Methods

Despite the confusion, one of the most pervasive trends in human resource management today is the use of competency models. The premise of such efforts is that they provide a leveraging strategy for businesses to achieve and sustain competitive advantage (Mirabile 12).

William Rothwell, president of Rothwell and Associates and author of many books and articles, including The ASTD Reference Guide to Professional Training Roles & Competencies (1987) and The Complete AMA Guide to Management Development (1993), attributes the interest in competency modeling to a number of factors – from the fact that work-oriented task analysis can date quickly whereas competency assessment is more flexible, to the more flexible definitions of work design, such as team-based organizations (Supervisory Management 1).

Regarding competitive advantage, competency models are seen as providing an important basis for hiring top performers. According to Peter Drucker in Managing for the Future, "management has become the decisive factor of production" (Kelley 26). Hiring the right people is the first step toward effective management, especially since the pressure to produce greater output with fewer people will only increase. Rothwell sees competency assessment becoming the basis of all human resource activities, "the centerpiece for strategically integrating recruitment, orientation, training, compensation, performance appraisal, career pathing, and succession planning" (Supervisory Management 1). A major advantage of competency approaches is that they are targeted toward achieving ideal performance (Rothwell & Kazanas 55).

Major needs competencies and competency models can meet include the following: (1) develop organizational capabilities and ability to respond to future requirements; (2) improve hiring effectiveness/reduce turnover; (3) increase productivity of average and below-average performers; (4) provide self-development opportunities; and (5) motivate workers with performance measures and compensation.

(1) Need to Develop Organizational Capabilities and Ability to Respond to Future Requirements:

The underlying assumption of competency-based approaches is that identifying those knowledge, skills, abilities and behaviors required for successful job, team, or total business performance is one of the most direct links to actualizing the shared mission of the organization. "This, of course, is to achieve and maintain the competitive advantage necessary for survival in domestic and global markets" (Mirabile 12). Reagan concurs, stating that transforming organizations into adaptive, learning enterprises requires the identification of core competencies, which are translated into unit and individual performance measures (25, 29). Competency-based approaches are perceived as a solid framework to keep pace with rapidly changing knowledge and skill requirements, especially as they relate to the "soft side of job performance" (Gorsline 55) (Profit-Building Strategies 23). The competency process is especially effective when it is focused on the future of the organization (McCabe 63) (Dubinski 32).

(2) Need to Improve Hiring Effectiveness/ Reduce Turnover:

There are tremendous costs involved in hiring a candidate that does not stay with the hiring company. These costs can include:

> interview time; search firm expenses; transition costs such as lost productivity and delayed projects; time and expense to train new hire; lost revenues, if the incumbent is not able to recognize and capitalize on opportunities or does not properly handle problems; negative impact on co-worker morale and cooperative spirit, resulting in lower productivity and work quality; negative publicity; financial penalties. (Dubinski 28-31)

In the retail industry, costs can include the following:

Table 1

Turnover – The True Cost

1.	Recruiting and hiring new employees
2.	Training costs – including management time
3.	Full pay and benefits during training, before full productivity is reached
4.	Lost sales and alienated customers during off-site training
5.	Cost of mistakes made by new, inexperienced employees
6.	Loss of customers loyal to departing employees
8.	Lost or damaged relationships with suppliers
9.	Employee morale and customer perception of that morale

SOURCE: Supermarket Business. Exhibit from "Slowing the Revolving Door," by Terri Kabachnick (1996).

Bartel identifies that poor hiring decisions cost additional recruiting and training money, and decrease

morale and productivity (26). Profit Building Strategies states that

> (t)he cost of replacing an employee is estimated at 1-1/2 times a person's salary. Besides, hiring the wrong person means you've lost the leadership, motivation, flexibility, and other attributes the right person could have brought to your company. (23)

Even when an employee does not leave the position, "that person expends a great deal of energy trying to adjust his or her behavior. This stressful process can cause sickness, drug or alcohol abuse, or behavioral problems – all of which increase benefit costs and absenteeism as well as decrease service quality and productivity" (Kabachnick 74).

The role of personnel and human resource management is to ensure that the organization has the right number and kinds of people at the right places at the right times, performing well on the right number of carefully designed jobs, so that both the objectives of the organization and the needs of individuals who work for it are achieved (Ash, Levine & Sistrunk 47). Since the primary link between the individual and the organization is the job, competency models are an effective way to ensure the goodness of fit between an organization's jobs and its people.

According to Meger, CEOs are often asked what they want most from their human resource departments. The

most common response is, securing and retaining qualified employees (22).

> While HR departments have responded to these requests through a wide variety of systems and services, the hottest current system involves a phenomenon known as behavioral competencies. Competency-based systems are being touted as the most effective way to select and evaluate employees now and in the future .... (22)

With the vastly and rapidly changing competitive world-wide market, technical abilities are no longer sufficient for assessing job candidates using traditional interviewing techniques.

> Research has shown conclusively that the core competency method of interviewing and selecting candidates produces a high level of success for new hires. ... A candidate who does well in a competency-based interview is far more likely to excel on the job. (Zwell 31)

(3) Need to Increase Productivity of Average and Below-Average Performers:

Using competency models, it is possible to isolate star-performer strategies and behaviors and train average and below-average performers to adopt them (Froiland 34). "If you identify top performers ... and ferret out their winning ways, you can then teach average and below-average performers to use those strategies and increase their productivity as well" (33). This can create an ancillary benefit of a

shortened learning curve for employees transferred to new positions (McCabe 63).

(4) Need to Provide Self-Development Opportunities:

An individual can (a) compare themselves to the "model" of best job position holders in the company; (b) compare self-ratings with ratings made by manager or others; and (c) develop a personal learning/development plan (PICS 1). Continuous performance improvement across individuals can lead to improved organizational performance and business results. Competency models can be made available to individuals considering career development options and want more information on a position's role. Therefore, the competency model can be used to "build tools for self-assessment and self-development" (Gorsline 63).

(5) Need to Motivate Workers with Performance Measures and Compensation:

Reagan emphasizes that adaptive organizations tend to measure performance in terms of outcomes rather than perceptual ratings of employee behavior, and that competency-based systems tend to focus on outcomes rather than effort (29, 31). Dubinski concurs and suggests that, when effectively applied, a competency model will help pinpoint the appraisal techniques that

will improve performance and organization's return on its human capital investment (30).

Nemerov focuses specifically on how to design a competency-based pay program, and states that

> a competency-based system is a better means for influencing and reinforcing job behavior that advances the goals of the business. ... Measuring competence allows top contributors to be distinguished from other employees, without hierarchy or cumbersome job measurement. (46)

In summary, the literature supports the benefits of competencies and competency models, and suggests that they can create competitive advantage for an organization when developed and used effectively.

Statement of Purpose

While the definitions of competencies and competency models continue to be debated by HRD professionals, the search continues for reliable and effective competency and competency model development methods which can be used to create competency-based approaches to improve human performance, business results, and competitive advantage.

The purpose of this paper is to: (1) review the literature to identify competency model development methods; (2) document the actual development method used to develop competency models at a major

telecommunications company; (3) evaluate the actual competency model development method used; and (4) make recommendations, as appropriate, for improving the competency model development method used. The competency model development method evaluated will be the one utilized by a major telecommunications company to develop competencies for targeted technical service positions.

Chapter II

This chapter reviews the literature to identify competency model development methods and the advantages and disadvantages of each method. The importance of using valid competency model development methods is explored, as well as the validity of the methods described.

Competency Model Development Methods

While there are many methods and variations HRD practitioners can adopt when they develop a competency model to meet their unique requirements, there are four primary competency model development methods identified in the literature: (1) Boyatzis' Job Competence Assessment Method (1982); (2) Rummler's Competency Study Method (1987); (3) McLagan's Situational Approach (1990); and (4) Spencer & Spencer Classic Competency Approach (1993). The steps, activities, and results for each of these competency model development methods is described, along with its key writers, advantages and disadvantages, and case study applications.

Boyatzis' Job Competence Assessment Method (1982):

Richard Boyatzis' work in competency modeling includes his work at McBer and Company, where the Job Competence Assessment Method (JCAM) was initially developed. In his book, The Competent Manager: A Model for Effective Performance (1982), Boyatzis presents the five-step JCAM process which can be used to generate a validated competency model for a job. This process and its results are described in Table 2, which begins below and continues on the following page.

Table 2

Boyatzis' Job Competence Assessment Method (1982)

Steps	Activities	Results
1. Identification of criterion measure	• Choose an appropriate measure of job performance • Collect data on performers	Job performance data on performers
2. Job element analysis	• Generate list of characteristics perceived to lead to effective and/or superior performance • Obtain item rating by performers • Compute weighted list of characteristics • Analyze cluster of characteristics	• A weighted list of characteristics perceived by performers to relate to superior performance • A list of clusters into which these characteristics can be grouped
3. Behavioral event interviews	• Conduct Behavioral Event Interviews (BEIs) • Code interviews for characteristics or develop the code and then code the interviews • Relate the coding to job performance data	• A list of characteristics hypothesized to distinguish effective and/or superior from poor or less effective job performance • A list of validated characteristics, or competencies

4. Tests and measures	• Choose tests and measures to assess competencies identified in prior two steps as relevant to job performance • Administer tests and measures and score them • Relate scores to job performance data	A list of validated characteristics, or competencies, as assessed by these tests and measures
5. Competency model	• Integrate results from prior three steps • Statistically and theoretically determine and document causal relationships among the competencies and between the competencies and job performance	A validated competency model

SOURCE: The Competent Manager: A Model for Effective Performance (Boyatzis 1982).

Boyatzis' Job Competence Assessment Method (1982) is based on the work of several writers. Klemp's work, Job Competence Assessment (1978), contributed a multi-step framework to identifying competencies which helped shape the five steps of the JCAM process. Step 2 involves job element analysis, which was developed from Primoff's 1973 job analysis concepts. For Step 3, Boyatzis drew upon Flanagan's important 1954 work "The Critical Incident Technique," where Flanagan developed a form of critical-incident interviewing. Richard McClelland enhanced Flanagan's critical-incident interviewing methods to create a Behavioral Event Interviewing method in 1975 (5).

Advantages and Disadvantages. According to Boyatzis (1982), Klemp (1978), and Argyris and Schon

(1974), the JCAM (1982) and its components differ from task/function analyses and theory (or panel) methods in a number of important ways. Table 3 summarizes these advantages.

Table 3

Advantages of Boyatzis' Job Competence Assessment Method (1982)

ADVANTAGES OVER TASK/FUNCTION ANALYSES:
1. Examines the person in the job, not only the job
2. Results in a model of competence, not merely a laundry list of characteristics
3. The model can be validated in terms of performance data
4. More cost-effective than on-the-job observations
5. Provides information on aspects of behavior that are not directly observable
ADVANTAGES OVER THEORY (OR PANEL) METHODS:
1. Validates what experts say is relevant, not merely using what experts say without validation
2. Results in the identification of characteristics that are behaviorally-specific and, therefore, can be assessed, rather than identifying characteristics which are not specific such as "courage" or "dedication"
3. Behaviors are empirically tested against performance data, not merely presumed to be related
4. Coding systems are empirically derived and rigorously applied as evidenced by high inter-coder reliability, ensuring that data is valid and reliable

SOURCES: Boyatzis (1982). Klemp (1978). Argyris & Schon (1974).

The JCAM (1982) also has disadvantages, as summarized in Table 4.

Table 4

Disadvantages of Boyatzis' Job Competence Assessment Method (1982)

STEP 1: IDENTIFICATION OF CRITERION MEASURE
1. Measures currently used only reflect effective performance as the organization perceives it now; these measures may reflect short-sightedness or lack of understanding of potential other goals/measures.
2. Measures not currently used by the organization but adopted for the JCAM as desired measures of performance reflect subjective judgment.
STEP 3: BEHAVIORAL EVENT INTERVIEWS (BEI)
1. Since BEI relies on the recall of the respondent, only information that the respondent happens or chooses to remember is presented in the interview. This can result in self-serving, biased information.
2. Since BEI asks for decisions, actions, thoughts, and feelings, but not for knowledge or specific information that was the basis for these, BEI is not adequate for determining the specialized knowledge needed by performers to perform their functions.
3. BEI does not necessarily provide enough information to infer motive, trait, self-image, or social role levels of competencies.

SOURCE: Boyatzis (1982).

Rummler's Competency Study Method (1987):

Geary A. Rummler outlined a competency model development method for determining training needs which effectively link training to performance. In his view, "the primary objective of training is to improve individual *and* organization performance" (218), and competency development is one of five major links to determining training needs. Therefore, when viewed as part of Rummler's system, competency model development

is one of four approaches to improve individual and organization performance.

Table 5 below portrays Rummler's Competency Study Method and identifies the system's major links, with competency development as the second link.

Table 5

The Linkage Between Training Input and Performance Output and Four Approaches to Determining Training Needs

THE LINKS	① Knowledge and Skill Input ➡	② Performer Repertoire or Competencies ➡	③ Task Output ➡	④ Job Output ➡	⑤ Process or Function Output
APPROACHES TO DETERMINING TRAINING NEEDS	A. Training Needs Survey	B. Competency Study	C. Task Analysis	D. Performance Analysis	

SOURCE: Rummler, G. "Determining Needs" in R. Craig (ed.) Training and Development Handbook: A Guide to Human Resource Development (1987).

The competency approach, as presented by Rummler, asks the question, "what competences are required?" as its starting point. The general approach is:

> (1) Ask key people what competencies they think or feel the trainee-performer requires to do the job (or "X" portion of the job).
> (2) Determine the knowledge and skills required to attain the stated competences.
> (3) Prioritize the knowledge and skills recommended and summarize as a training agenda or curriculum (230).

Specific competency model development steps might be employed as shown in Table 6 below.

Table 6

Rummler's Competency Study Method (1987)

Steps	Activities	Results
1. Select a group of experts to identify the general competences required for a performer in a specified position.	• Select experts (e.g., include current performers as well as people who have performed the job, managed the job, and have been recipients of the performer's output) • Experts articulate a model or profile of the performer (data collection method is meetings)	General competences required for a performer
2. Distribute the preliminary model to a larger circle of experts.	• Select larger circle of experts (e.g., include managers and/or supervisors of the performer and of the recipients of the performer's output) • Experts add to or delete from the preliminary model (data collection method is survey and/or meetings) • Assemble the input	Consolidated input for reviewed and revised preliminary model
3. Review the consolidated input with the initial expert group from step 1.	• Experts from step 1 finalize the list of competencies (data collection method is meetings for initial expert group; could distribute survey to a larger group to gain broader input and involvement)	Finalized/approved list of competencies
4. Identify and prioritize the knowledge and skills required with the initial expert group from step 1.	• Experts from step 1 identify and prioritize the knowledge and skills they believe are required to have the desired competencies (data collection method is meetings for initial expert group; could distribute survey to a larger group to gain	Completed competency model with prioritized list of competencies and the knowledge and skills required for competent performance

	broader input and involvement)	
5. Organize the knowledge and skill requirements into a training plan.	• Training developers organize the knowledge/skill requirements into a training plan or curriculum (e.g., "basic" and "advanced" or "technical" and "interpersonal")	Competency-based training plan or curriculum for performers

SOURCE: Rummler, G. "Determining Needs" in R. Craig (ed.) Training and Development Handbook: A Guide to Human Resource Development (1987).

Advantages and Disadvantages. As described by Rummler, his Competency Study Method has the following advantages and disadvantages. These are summarized in Table 7 on the following page.

Table 7

Advantages and Disadvantages:
Rummler's Competency Study Method (1987)

ADVANTAGES:

1. Relatively fast and inexpensive
2. Involves broad participation; results in consensus
3. Determines training needs
4. Organization articulates and reaches agreement on performer success profile
5. Identifies generic training needs for broader population

DISADVANTAGES:

1. Difficult to relate competencies and the resulting knowledge and skill requirements to job output and organization performance
2. Validation and evaluation are difficult (see disadvantage 1)
3. Difficult to assess relative importance of competencies and, therefore, difficult to set priorities for knowledge and skills inputs
4. Consensus of experts will not necessarily identify the critical differences between exemplary and average performance (which is key to identifying training input impacting job output)
5. Does not address other factors impacting performance (e.g., feedback and consequences)

SOURCE: Rummler, G. "Determining Needs" in R. Craig (ed.) Training and Development Handbook: A Guide to Human Resource Development (1987).

The major limitations of Rummler's Competency Study Method are that "this approach does not directly link the training input to performance output or address the performance context of the performer" (228). Taking into account the advantages and disadvantages of this competency model development method, Rummler provided guidelines on when and where to use his approach effectively.

> Understanding the limitations on the data (not tied to performance output), this approach is more appropriate for managerial and professional jobs with broad, difficult-to-define job responsibilities than for jobs with specific, well-defined outputs. In the case of an insurance company, for example, a competency study could be more useful in examining the jobs of "staff manager" or "underwriter" than for a claim representative.
>
> In general, this approach would be appropriate for determining training needs when there is a relatively short lead time, resources are limited, and/or the client would benefit from a consensus profile of the job in question. (238)

McLagan's Situational Approach (1990):

A third method for identifying competencies and creating competency models is Patricia McLagan's Situational Approach (SA), as described in her 1990 work "Flexible Job Models: A Productivity Strategy for the Information Age."

> While the exact methods and techniques used during an SA application largely depend upon how concrete or abstract a job is, whether the job already exists in an organization, and whether a set of related jobs are under analysis for their component competencies, a generic set of steps can be defined. (DuBois 7)

The Situational Approach, also termed the "Flexible Job Performance Design Method," (McLagan 369) (DuBois 7, 95), can utilize steps and produce outputs as displayed in Table 8.

Table 8

McLagan's Situational Approach (1990)

Steps	Activities	Results
1. Prepare a job information paper or portfolio.	• Assemble and review all available information that is pertinent to the job; e.g.: • Job tasks/activities • Job outputs • Performance standards/expectations • Historical information on job's evolution • Job's future context • Organization's strategic plan • Employee demographics	Job information portfolio
2. Identify an expert panel consisting of exemplary subject-matter experts and others, as needed.	• Determine experts needed based on needs and job level to be studied; e.g.: • Senior organization leaders • Managers • Customers • Regulators; legal experts • From leaders, solicit information on contextual/strategic present conditions and future assumptions • From managers, solicit technical and operational information	Sources identified for required subject matter
3. Develop present and future assumptions about the job in the context of the organiza-	• Distribute job information portfolio to experts • Experts review portfolio • Experts develop present/future assumptions about organization structure, technology, workforce, regulatory/competitive	Present and future job and organizational assumptions defined

tion.	environment, new products, suppliers (data collection is structured, facilitated discussions and brainstorming) • Experts reach consensus	
4. Experts develop a job outputs menu, including (optional) quality criteria for each output.	• Experts identify job outputs (products, services, information) to internal and external customers • Experts define quality criteria that describe "excellence" for each output (optional) (data collection for both activities is structured, facilitated discussions and brainstorming) • Categorize job outputs (e.g., by core discipline and/or span of control)	Job outputs menu, with quality criteria for "exemplary" output (optional)

5. Construct a job competencies menu and the behavioral indicators for each competency.	• Select experts required (current experts; "guest experts")
	• Prepare list of competency examples relevant to job (optional) and distribute to experts
	• Experts determine competency categories – recommended categories are:
	  • Skills: Physical, Interpersonal, Intrapersonal
	  • Knowledge: Business and/or Industry, Specialist
	• For each competency, experts define actual, specific performance examples (behavioral indicators)
	• Sort indicators into scales or mastery levels; e.g., basic, intermediate, advanced (optional) (all data collection with experts is structured, facilitated discussions and brainstorming)
	• Experts reach consensus
		• Menu of job competencies and their alignments with the job outputs
		• Behavioral indicators for each competency
		• Mastery levels for the competencies (optional)

6. Determine a menu of job roles through a cluster	• Cluster-analyze job outputs into logical, practical subsets ("job roles") • Name each job role	Job roles defined (consisting of competencies with behavioral indicators)

analysis of the job outputs.		

7. Construct one or more job competency models.	• Select one competency model construction method:
	  • Relevant job outputs
	  • Job roles
	• Use model construction method to develop job competency model
		Flexible job competency model

8. Brief the client or client group on the results. Revise the results where indicated. Prepare final report.	• Expert panel member and HRD practitioner present results in executive summary form to client or client group • Solicit feedback and gain consensus • Incorporate approved feedback • Publish final flexible job competency model	Final, approved flexible job competency model published and distributed for use (e.g., training curriculum design and training development)

SOURCE: McLagan, Patricia A., "Flexible Job Models: A Productivity Strategy for the Information Age" (1990) in David DuBois, Competency-Based Performance Improvement: A Strategy for Organizational Change (1993).

Advantages and Disadvantages. According to DuBois (1993) and McLagan (1990), the Situational Approach has advantages and disadvantages as described in Table 9 below.

Table 9

Advantages and Disadvantages:
McLagan's Situational Approach (1990)

ADVANTAGES:

1. Competency models that results from raw materials are considerably more durable over time
2. Easy to update as work requirements change
3. Can be used to develop a competency model for a job that does not yet exist
4. Model is readily available for doing in-depth micro-level needs analyses, since it supports the use of a variety of individual and group analysis

perspectives

DISADVANTAGES:

1. Requires considerable effort and involvement on the part of the people of the organization
2. Can incur high developmental costs
3. Requires considerable facilitation skills
4. Is difficult to convince top management that this approach directly confronts the major issues of the business and is, therefore, an integral part of their management responsibility
5. Requires top management's total commitment

SOURCE: Dubois, David D. Competency-Based Performance Improvement: A Strategy for Organizational Change (1993). McLagan, P.A. "Flexible Job Models: A Productivity Strategy for the Information Age." In J.P. Campbell, R. Campbell & Associates, Productivity in Organizations: New Perspectives from Industrial and Organizational Psychology (1990).

A flexible job design and competency modeling method – which is a systems approach to job and organization design – holds high promise for the effective and efficient design and documentation of jobs in the present and future work environments, assuming a certain level of investment by its user (Dubois 98).

Spencer & Spencer Classic Competency Approach (1993):

A fourth approach to competency model development is a full-scale classic version of a competency study. Classic competency studies include six steps, as presented in Table 10.

Table 10

Spencer & Spencer Classic Competency Approach (1993)

Steps	Activities	Results
1. Define performance effectiveness criteria	• Define hard data: sales, profits, productivity measures • Define supervisor ratings • Define subordinate ratings (e.g., managerial styles, morale) • Define customer ratings	Hard job performance outcomes
2. Identify a criterion sample	• Identify superior performers • Identify average performers	Permits simple statistical tests of hypotheses about competencies
3. Collect data	• Conduct behavioral event interviews (BEIs) • Panel experts brainstorm personal characteristics • Conduct survey and 360 degree ratings • Use computer-based Expert System, as appropriate • List job task/function or action the jobholder performs • Directly observe employees performing critical job tasks	• Identifies competencies needed to do the job well • Competencies are verified by BEI or direct observation data • Provides a numerical ranking of skills • Provides a detailed description of competencies required • Produces complete job descriptions • Enables identification and verification of competencies suggested by the panel
4. Analyze data and develop a competency model	• Identify job tasks • Identify job competency requirements	• Precise definition of job competency requirements • Assessment of individuals at any level in a job family • Model can be used for selection, training, performance appraisals and career planning
5. Validate the competency model	• Conduct behavioral event interviews • Conduct test • Develop Assessment Center ratings	Predictive validity for selection or training
6. Prepare applications of the	• Selection • Training • Professional development	Distinguishes superior from average performers

competency model	• Performance appraisal • Succession planning • Evaluation of training, professional development programs	

SOURCE: Spencer, Lyle M. and Signe M. Spencer. Competence at Work (1993).

As described by Spencer and Spencer (1993), their classic competency model method has the following advantages and disadvantages. These are summarized in Table 11.

Table 11

Advantages and Disadvantages:
Spencer & Spencer Classic Competency Approach (1993)

ADVANTAGES:

1. BEI data is the most valuable for validating competency hypotheses
2. Precision is used to express competencies
3. BEI data can show exactly how superior performers handle specific job tasks or problems
4. Models are valid without being biased against minority candidates
5. Behavioral event interviews provide specific descriptions of effective and ineffective job behaviors
6. Expert panels offer quick and efficient collection of valuable data
7. Panel members become knowledgeable in competency concepts
8. Survey method is quick and inexpensive
9. Surveys allow employees to have input and builds consensus
10. Expert Systems provides access to several hundred competency studies in the database
11. Expert Systems quickly narrow questions to those relevant to the job being analyzed
12. Expert Systems provide information that would take days/weeks to produce
13. Method produces complete job descriptions useful for compensation analysis
14. Can use method to validate data collected by other methods
15. Direct observation is a good way to identify competencies suggested by a panel, survey, or a behavioral event interview

DISADVANTAGES:

1. A properly conducted BEI is time consuming and expensive
2. BEI interviewers must be trained
3. BEI data may miss less important aspects of the job
4. BEI studies are impractical for analyzing large number of jobs due to labor time, expense, and expertise requirements
5. Critical competency factors might be omitted for which panel members lack psychological or technical vocabulary
6. Data are limited to items and concepts included in the survey, creating missed competencies not included in the surveys

7. Survey method can be inefficient
8. Expert Systems data bases depend on the accuracy of the responses to the questions
9. Expert Systems may overlook specialized competencies not in the database
10. Costs of system hardware and software may be prohibitive
11. Job tasks provide characteristics of the job rather than those of the people who do the job well
12. Task lists tend to be too detailed to be practical
13. Direct observation is expensive and inefficient

SOURCE: Dubois, David D. Competency-Based Performance Improvement: A Strategy for Organizational Change (1993). McLagan, P.A. "Flexible Job Models: A Productivity Strategy for the Information Age." In J.P. Campbell, R. Campbell & Associates, Productivity in Organizations: New Perspectives from Industrial and Organizational Psychology (1990).

Importance of Valid Competency Model Development Methods

The job competency movement has advanced the way in which HRD practitioners go about their traditional task of getting the right person into the right job. Formerly, psychologists identified the tasks required for the job (as in motor skills needed for operating a streetcar or an airplane), constructed tests to measure the skills needed to perform these tasks, factor-analyzed performance scores on those tests after making sure the scores were reliable, and then tried to match the factor scores with success on the job – without success. In essence, traditional industrial/organizational psychology started with

separate analyses of the job and the person, and tried to fit them together. This approach had great success in predicting academic performance from academic-type tests, but it has proved quite inadequate for predicting performance in the high-level jobs of greatest importance to modern business (Spencer 7). Therefore, using a valid competency model development method can help HRD practitioners hire applicants who are best-suited to meet the job requirements.

In addition to helping HRD practitioners get the right person into the right job, using valid competency models can have a tremendous positive impact on an organization's effectiveness including, as Lawler stated, helping the business enterprise create a sustainable competitive advantage (Currie and Darby 13). However, to have a significant positive impact on individual performance and, ultimately, business success, the competency model must be valid.

The validity of a competency model can be viewed according to its construct, content, concurrent, and predictive validity (McLagan 44). The term validity and each validity type is described below:

> Something is valid when it actually relates to what we say it relates to. When we say a behavior relates to or expresses a competency, we are making a *construct* validity statement. When we say that a competency is needed in the real world of

> work, we are making a *content* validity statement. When we say that a competency used at a point in time is associated with superior performance, we are making a *concurrent* validity statement. When we say that a competency that someone has currently will make him or her effective in future work, we are making a *predictive* validity statement. (44)

For the job competency approach to be valid, analysis starts with the person in-the-job, makes no prior assumptions as to what characteristics are needed to perform the job well, and determines from open-ended behavioral event interviews which human characteristics are associated with job success. In this way, the competency method emphasizes criterion validity: what actually causes superior performance in a job, not what factors most reliably describe all the characteristics of a person, in the hope that some of them will relate to job performance (Spencer 7).

In the past, the generally accepted way to ensure validity was to have job experts pool their expertise to define work and competencies. HRD practitioners would "ensure validity" by observing or by asking what superior performers do; by creating models of their performance; by assessing people and predicting their likelihood of success; and, in a few heroic cases, tracking the hit rate of their predictions (McLagan

44). These steps, however, are not enough for some competency model applications.

For competencies to be used as a legal selection tool (the selection of candidates or measurement of employee performance), and to prove they are consistently predictive, the competencies must be validated. Whether criterion validity (scores on a test), content validity (content of the procedure as representative of the job itself), or construct validity (measurement of a trait or characteristic) is used, the tool must pass the tests established in the federal Uniform Guidelines on Employee-Selection Procedures (Meger 22).

Competencies identified by the competency process also need to be context sensitive (e.g., they describe what successful Indian entrepreneurs actually do in their own organizations and culture, not what Western psychological or management theory say should be needed for success). In this way, competency-based selection predicts superior job performance and retention – both with significant economic value to organizations – without race, age, gender, or demographic bias (Spencer 8).

The competency approach provides a human resource method broadly applicable to selection, career pathing, performance appraisal, and development in the

challenging years ahead (Spencer 8). In short, business success depends on valid competency models (McLagan (1997) 44).

Summary: Competency Model Development Methods

In summary, Meger (1996) states there are two basic methods of competency development -- the expert method and the job analysis method. The expert method involves interviewing star performers, experts and key players (typically, senior ranking members of the organization) to develop success profiles. Typically, the expert method is difficult if not virtually impossible to validate. (23) The Boyatzis and Spencer & Spencer competency model development methods described in this chapter can be considered "expert methods."

Meger described the job analysis method as follows.

> The job analysis method is probably the more preferred method among human resource practitioners since it lends itself to validation. In this method, competencies are viewed as sets of knowledge, skills and abilities (similar to those found on detailed job descriptions) which are required for success on the job. (23)

The Rummler and McLagan competency model development methods described in this chapter can be considered "job analysis methods."

When the relevant competencies have been identified through either the expert or job analysis methods, applicants and incumbents can be measured according to the degree of the competencies they possess. Specific, objective behavioral examples of desired competencies make valid competency models a powerful tool for creating competitive advantage today and into the future. HRD practitioners need to carefully design the rigor of their competency model development method to meet the objectives and intended uses of the performer data and behavioral examples assembled.

Chapter III

This chapter reviews the competency model development method implemented by a consulting company on behalf of its telecommunications client. In the "Materials" section, the telecommunications company's need and the consulting company's response are outlined. The competency model development method implemented is then presented using the same format as the format used in Chapter II literature review. In the "Subjects" section, a complete description of the two evaluators is provided. The third section of Chapter III, "Instrument," describes the instruments used by the evaluators to evaluate the telecommunications company's competency model development method. Chapter III's final section, "Procedure," describes the methods of evaluation.

Materials

A major communications company needed to reorganize and streamline its organization to create a competitive advantage in a highly competitive and quickly evolving industry. Downsizing, staffing churn, and the competitive environment created the need to provide necessary skills and knowledge faster, with

increased performance factors, and at reduced cost.

The client's request for proposal stated the following:

> In the new environment, learning will be tailored to individual needs. This begins with the building of job models based on skill and knowledge requirements and performance standards defined by and agreed to by the line personnel. The skill and knowledge gaps identified set the priorities for the development of curricula, courses, and support tools. (Clapp 6)

The consulting company responded that,

> The Competency Model Development Process is a key step in creating a performance enhancement system that links training and education to behaviors which generate measurable business results and achieve strategic business goals. The correct identification of job requirements based on business strategies and goals "feeds" the success of performance enhancement efforts. (Maritz Performance Improvement Company 1)

The consulting company's approach to developing competency models for the client emphasized the following:

- Alignment: performance requirements need to support performers in meeting customer requirements; therefore, performance requirements will then support the attainment of measurable business results

- Focused on Business Strategy: identify tasks and competencies which create competitive advantage for the client
- Competency Model Development Process Focused on Continuous Improvement: team members will continuously evaluate the process by asking questions, seeking input, and suggesting next steps based on what they've just learned

Overall, the consulting company stated that their competency model development method (Appendix A) emphasized the linkages shown in Table 12. Their competency model development method emphasized beginning with customer needs and "building up" to competency model completion.

Table 12

The Voice of the Customer Model

COMPETENCY MODELS

↑

KNOWLEDGE, SKILLS & ABILITIES

↑

JOB DESCRIPTIONS & JOB ASSIGNEMENTS

↑

PERFORMANCE REQUIREMENTS

↑

BUSINESS REQUIREMENTS

↑

EXTERNAL CUSTOMERS

SOURCE: Consulting Company's Proposal to Telecommunications Client (1993).

There are six steps used in the telecommunications company's competency model development method. These six steps are described here, and then summarized in Table 13.

Step 1 is "Organizing." The purpose is to determine roles and responsibilities and finalize the work plan. Once the work plan is completed, the models are developed. Step 2 is "Base Data Collection." This step includes the verification of jobs selected for competency model development. Step 3 is "Alignment," which includes determining performance system support for the jobs and whether the jobs are aligned with strategic/business objectives. Step 4 is "Developing Task Statements and Interview Summaries." This step includes analyzing job tasks and job-holders' perceptions of performance systems, as well as developing knowledge/skill/abilities (KSA) requirements based on job tasks. Performance gaps were also identified. Step 5, "Competency Definition and Validation," included matching the KSAs to appropriate job descriptions. The last step, Step 6, "Assessment," included developing and conducting a pilot test for measuring KSAs.

Table 13

Telecommunications Client
Competency Model Development Method

Steps	Activities	Results
1. Organizing	• Develop team mission • Define the scope, purpose, and plan of work • Fill-in details for the development process • Identify the core team, extended team(s), and advisory committee • Create the Competency Model Team • Assign overall roles and responsibilities	• Team documents: service expectations; team mission; scope, purpose and plan of work; team members; committee(s); roles and responsibilities; and development process • Learning plan • Verify direction with the advisory committee •
2. Base Data Collection	• Just-in-time training • Planning activities for this step	• Document plans and measurements as they affect the competency model • Verify direction with the advisory committee
3. Alignment	• Alignment Sessions conducted • Just-in-time training • Planning activities for this step • Develop job environment questionnaire • Approval of job environment questionnaire • Identify interviewees • Conduct job environment interviews	• Document findings • Verify direction with the advisory committee
4. Developing Task Statement and Interview Summaries	• Develop task analysis questionnaires with observation sheets • Conduct task analysis interviews and observations with performers • Develop task statements • Conduct just-in-time training • Planning activities for	• Approved task statements • Verify direction with the advisory committee • Approved KSAs, standards and measurements • Aggregate performance gaps • Verify direction

	this step • Conduct focus groups to identify KSAs of master performers; perceived performance gaps; document findings • Circulate findings to management for input • Develop standards defining measures for successful performance • Document results	with the advisory committee
5. Competency Definition & Validation	• Develop focus group protocols • Conduct focus groups to identify skill groupings and match skill groupings to job responsibilities • Review findings with expert panel; make revisions • Document results	• Competency Model Report with: • Tasks, standards and measurements of job • Supporting and hindering factors in the environment • Performance gaps • Learning patch which includes: • Training • Training results • Recommended next training steps
6. Assessment	• Assessment methodology and pilot test procedures for identified competency models • Approval of assessment methodology and pilot test procedure • Develop assessment instruments • Approval of assessment instruments • Conduct the pilot test • Evaluate pilot test data • Revise the assessment methodology and instrument	• Approved assessment methodology and instruments for competency models • Determine next steps for continuous performance improvement with the advisory committee

SOURCE: Consulting Company's Plan for Telecommunications Client (1993).

Subjects

Based on their expertise in human performance technology and instructional design, two evaluators were selected to evaluate the competency model

development method used by the consulting company for its telecommunications client.

The first evaluator is Jackie Ray, Management Consultant. Ray has over fifteen years experience in the performance improvement field, including training and organizational development. Ray has a B.S./B.A. from St. Louis University, majoring in Accounting. Her Master of Arts degree is in Management, specializing in the field of Organizational Behavior and Human Performance. She received her M.A. from the University of Nebraska-Lincoln.

Viji Samikannu, Learning Systems Technologist with Maritz Performance Improvement Company, has five years of experience in the performance improvement field. Samikannu has a B.A. in English and a M.A. in Telecommunications. She is currently completing her dissertation for her Ph.D. in Instructional Technology at Southern Illinois University at Carbondale.

Instrument

Two evaluation instruments were developed (Appendix B). The first instrument is a three-page Evaluation Questionnaire for use by the two evaluators. In addition, an Interview Protocol was developed for the researcher to use in conducting a follow-up phone

interview with each evaluator. Both instruments were designed to ensure that consistent criteria were being addressed at each step of the evaluation of the competency model development process implemented by the consulting company for its telecommunications client.

Procedure

Two evaluators were selected based on their experience and expertise in the training field, including competency model development. Each evaluator was asked via a phone conversation if they would agree to (1) review background information on competency model development methods (i.e., Chapters I and II); (2) evaluate an actual competency model development method by completing a prepared questionnaire; and (3) discuss their evaluation during a follow-up phone interview.

Once each evaluator agreed, the process was verbally described so that each evaluator understood they would receive an envelope within one week containing:

- Cover Letter
- Chapters I and II (background information on competency model development methods)

- Evaluation Questionnaire

The evaluators agreed to perform the three described steps and return the Evaluation Questionnaire by the agreed upon date. The Cover Letter (Appendix C) also suggested a date and time for the Follow-Up Phone Interview, which would be conducted approximately one week following the researcher's receipt of the completed Evaluation Questionnaire. Each evaluator was contacted to confirm a date and time for the Follow-Up Phone Interview which was convenient for their schedule.

The Follow-Up Phone Interviews were conducted at the agreed upon times. The evaluators were thanked for their participation.

Chapter IV

This chapter presents the evaluation of the telecommunications company's competency model development method conducted by two instructional designers working in the human performance technology field. The evaluation questionnaire results are summarized first, followed by the results of the follow-up phone interview.

The eight questions on the evaluation questionnaire produced the following results. Both evaluators agreed that the case identified criterion measures of job performance. And, both evaluators rated the case methodology process a "2" on a scale of "1 to 5" (1 being Not Very Well; 5 being Very Well) for how well the methodology ensured that the criterion measures of job performance were valid and reliable. Reasons for this rating stated that, while performance measures were collected from performers and master performers, there was no way of stating whether these measures were valid and reliable. There was no validation process or causality studies conducted.

The evaluators also found the methodology lacking in that the case process did not identify high

performer characteristics and, therefore, did not use these characteristics to select the high performers involved in the competency model development process. One evaluator rated the need to use criteria to identify high performers as "4," while the other evaluator rated the need to identify high performer characteristics as "5" (1 being Not Very Important; 5 being Very Important). Reasons provided include the following:

- In a downsizing company operating in a highly competitive environment, there is benefit to carefully identifying high performers, since their input sets the direction for the newly-created position.
- Typically, high performers have a high "need to know." High performers also are usually able to secure other employment, and might be motivated to do so in a downsizing environment. Any high performers missed in this selection process might suspect that their value is not recognized/appreciated, and might move onto other positions with other employers.
- High performers, in an environment where the same amount of work, or more, is done with less people, need to define the "new way" of performing if the

client company truly wants to be successful in the redefined job environment. The "new way" needs to be the most efficient and effective way, and high performers need to define what that is and how it works.

- The "new way" needs to create a competitive advantage, and the client company needs its best performers helping it create new competencies.

The case process did not include a process for including both high and average performers or for conducting tests to statistically determine causal relationships between competencies and high versus low performance. One evaluator stated that the case process should have included this, and one evaluator stated that the case process should not have included this. The evaluator wanting to include this process step stated, "If the premise is high performers carry out behaviors that directly/positively impact business results, then low performance results may provide quantitative information about timing and pace." The evaluator stating this that this process was not necessary concluded,

> "The job position is technical. To raise overall performance to the level attained by high performers, this quantification is not necessary and, in a downsizing environment, the speed at which the competency model and

subsequent training is developed is more important."

The telecommunications company's competency model development method did not include behavioral event interviews (BEIs). Regarding how important it was for this client to include BEIs in their development process for their competency model to be useful long-term, one evaluator rated this importance at "2" and one at "3" (1 being Not Very Important; 5 being Very Important). Reasons stated are as follows:

- The three positions identified in this case were technical in nature and, therefore, were much more defined than a "soft skills-based" position. BEIs are much more useful for managerial-type positions.
- BEIs can be time-consuming and require trained interviewers. Under the circumstances faced by the telecommunications company, BEIs would probably have been hard to justify for this client.
- BEIs might have been useful for understanding how high performers think so that others could be trained to use similar analytical and decision making skills, but the process adopted in this case is adequate in this regard.

Both evaluators agreed that the level to which the case identified knowledge and skill requirements for

competency was appropriate. The evaluators found that there was good alignment with overall business direction in that knowledge and skill requirements were derived from performance requirements based on business strategies. Performance requirements, then, drove job descriptions to ensure positive alignment with company direction. Phase V of the process, Competency Definition and Validation, was appropriate. Overall, both evaluators felt that the task analysis procedures were also appropriate for the technical positions considered in this case.

While both evaluators agreed that the competency model process did align with the client company's overall business strategy, one evaluator felt that the case methodology did not adequately address both "present state" and "future state" because future state requirements were only derived from the documents collected during Phase I, Base Data Collection (e.g., 5 Year Plan, LOB Unit Objectives, forecasting documents). There was no evidence that high performers had access to this information during the competency model development process, especially since the performers were already performing in the newly-created job position.

As far as the future of competency model usefulness to corporations, the evaluators stated the following:

- Competency models are useful as a structure for organizing learning as it relates to job-related knowledge, skills and abilities.
- Competency models are a great way to develop training for current jobs that are changing or for new jobs being created.

The evaluators, in giving tips to Human Resource Development (HRD) practitioners regarding competency model development, suggested that HRD practitioners can use competency models confidently as a development and coaching tool, yet should not use competency model development processes to prove causality (i.e., that a certain set of characteristics or tasks cause high performance results). Most competency model development processes can be used to create competency models that can help an organization "raise the bar" of its overall performance capabilities by training all performers to the level of high performers.

In summarizing the evaluators' follow-up phone interview, both evaluators rated the telecommunications company's competency model development process a "9" on a scale of "1 to 10" (1 being Low; 10 being High), stating that it had all the critical elements or steps

of a solid competency model development process. The process utilized by this client was well suited for their needs in building a learning/training plan for three technical positions.

Both evaluators agreed that the case process methodology can also be used with other client companies to achieve their business results, but is best suited for use with technical positions. This process should not be used for managerial positions or for positions where the job is less defined. BEIs should be included in competency model development processes for managerial and non-technical positions.

Chapter V

This chapter summarizes two evaluations of the telecommunications company's competency model development method for three technical positions. Limitations of the study are also discussed, as well as suggestions for future research.

Summary

Overall, the evaluations of the telecommunications company's competency model development method provided by two evaluators were very consistent, and both evaluators rated the case process "9" on a scale of "1" to "10" (1 being Low; 10 being High).

Other areas of concurrence between the evaluators are as follows.

- Regarding how well the methodology ensured that the criterion measures of job performance were valid and reliable, both evaluators rated the case methodology process a "2" on a scale of "1 to 5" (1 being Not Very Well; 5 being Very Well). Reasons for this rating stated that, while performance measures were collected from performers and master performers, there was no way of stating whether these measures

were valid and reliable. There was no validation process or causality studies conducted.

- The evaluators also found the methodology lacking in that the case process did not identify high performer characteristics and, therefore, did not use these characteristics to select the high performers involved in the competency model development process. One evaluator rated the need to use these criteria to identify high performers as "4," while the other evaluator rated the need to identify high performer characteristics as "5" (1 being Not Very Important; 5 being Very Important). Reasons provided focused on (1) the fact that the company was downsizing in a highly competitive environment and needed high performers to provide the best input, and (2) high performers have a high need to know and a high need to be involved (that is, high performers want to know where they stand, and the lack of criteria make the high performer selection process ambiguous). These can lead to high performer turnover.
- Regarding how important it was for this client to include BEIs in the development process for their competency model to be useful long-term, one evaluator rated this importance at "2" and one at "3" (1 being Not Very Important; 5 being Very

Important). Both evaluators agreed that this was not very useful or was only moderately useful since the positions under consideration were technical positions, and not managerial or "soft skills-based" positions.

- Regarding the level to which the case identified knowledge and skill requirements for competency, both evaluators found that the case process was appropriate. The evaluators found that there was good alignment between job descriptions, performance requirements, and the client company's business direction. Overall, both evaluators felt that the task analysis procedures were appropriate for the technical positions considered in this case.

There were two areas of disagreement between the two evaluations. These areas are described as follows.

- The first area of disagreement between the evaluations was whether or not the case process should have included both high and average performers and a test to statistically determine causal relationships between competencies and high versus low performance. The evaluator wanting to include this process step stated that conducting this analysis would provide quantitative information on timing and pace. The evaluator stating that this process was not necessary concluded that, since the

goal was to raise everyone's performance in these technical positions to the level of high performers, the quantification of differences was not beneficial in developing training.

- The second area of disagreement between the evaluations was whether or not the case process adequately addressed both "present state" and "future state" requirements. Because there was no evidence that high performers had access to business planning information during the competency model development process, and since the performers were already performing in the newly-created job position, one evaluator felt that this was inadequate for defining performance in a future state context.

Overall, the competency model development process used by the consulting company on behalf of its telecommunications client was appropriate for the client's needs and goals.

Improvements to the case process should include the following.

- Identify specific criteria known to distinguish average performers from high performers. Use these criteria to select high performers.

- Share business planning and other future state information with high performers so that high performers can give their input on how tasks would need to change to meet evolving needs.

Based on the reasons stated by the evaluators, the conclusion is that the case process does not need to add any tests for statistically determining causal relationships between competencies and high versus low performance.

Limitations

A limitation of this study is that, while a given competency model development method may or may not be appropriate at the "process level" of evaluation, the real measure of competency model development methods is in the final results – performance improvement. And, there are many factors impacting the level of performance improvement on-the-job which results, or does not result, from competency-based hiring, training, and professional development practices.

In addition, competency model development methods need to be evaluated on levels deeper than just the process level. The process level serves as a useful first evaluation level, which should be followed by evaluations of actual instruments, expertise of the

HRD professionals conducting the process, and quality of the data produced.

Suggestions for Future Research

Suggestions for future research include identifying methods and tools that efficiently and effectively identify differentiating characteristics between high and average performers. This would greatly improve the ability of HRD practitioners to pinpoint differentiating characteristics and skills for use in hiring/selection and training/development.

Currently, the evaluators suggested that HRD practitioners use competency models primarily as a development and coaching tool. This recommendation falls far short of the claims that competency models can be used to create a competitive advantage. More research can be done to improve the ability of HRD practitioners in using competency modeling to help their organizations "raise the bar" of their overall performance capabilities by selecting candidates with high performer capabilities and then training these performers to perform at the high performer level.

APPENDIX A

COMPETENCY MODEL DEVELOPMENT PROCESS

FOR

BELL ATLANTIC CORPORATION

Prepared by:

Maritz Performance Improvement Company
July 9, 1993

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EXECUTIVE SUMMARY

Maritz' approach to your Competency Model Development Process provides Bell Atlantic several very important benefits.

- **Our approach emphasizes "alignment"** — we evaluate all activity to ensure that it supports performers in meeting customer requirements. In this way, performance requirements support the attainment of measurable business results.

- **Our approach is highly collaborative** — we will design the process *with you* so that we can take advantage of the resources and information you have. Collaboration will enable us to consistently select the *optimal* next step to produce the desired results. Efficiencies will be created by our emphasis on organizing the process "up-front."

- **Our approach is dynamic and follows a proven diagnostic path** — throughout our working relationship, we will encourage all team members to continuously evaluate the process by asking questions, seeking input and suggesting next steps that are *based on what we've just learned.* We do not make assumptions about what to do in advance . . . we let the information we collect shape our process. In this way, we respond appropriately.

- **Our approach is firmly rooted in human performance technology** — we understand the challenges that your businesses and performers face while undergoing a reorganization designed to create a competitive advantage. As you move your organizational systems towards a performance enhancement posture, performers need to experience training within a job environment that supports their efforts to achieve business results. To increase the return on your training investment, we will identify performance obstacles and suggest remedies.

- **Our approach incorporates just-in-time training and on-the-job learning for your personnel assigned to learn this process** — like you, we believe that training is most effective when it is interactive, integrated into the workplace through structured on-the-job training and coaching, and tailored to learner needs. These principles are the basis for the training approach we've recommended.

Maritz is dedicated to your success — we will transfer the process expertise to your resources while creating competency models which will help your LOBs reach higher and higher levels of performance. We will work hard to make your continuous performance enhancement efforts highly successful.

By choosing Maritz as your partner in the Competency Model Development Process, you are assured that the investment you make pays dividends beyond the competency models — you invest in the success of all of your performance enhancement efforts because we take the total system into consideration at each step.

We look forward to implementing this plan with you.

INTRODUCTION

Maritz Performance Improvement Company welcomes this opportunity to present our Competency Model Development Process to Bell Atlantic.

In this plan for your competency model development process, we will:

- Discuss your **current situation** as we understand it
- Present the **"voice of the customer" model** we use to direct our approach
- Present our **5-phase approach** to the Competency Model Development Process
- Describe the **diagnostic path** we'll follow during each of the process steps you've identified
- List the **tasks and task outputs** we'll provide in partnership with your personnel throughout the Competency Model Development Process
- Provide a **sample of a professional competency model** — the model and accompanying job description Maritz uses for our Instructional Designers
- Specify the **Competency Model Development Process outputs** required
- Discuss our approach for **"partnering" with your resources to transfer the process skills to them** — we recommend the creation of the "Competency Model Team," a collaborative team of Maritz Instructional Designers and Bell Atlantic personnel who will *learn* the process *by doing* the process with the help of Maritz' "coaches" (we'll discuss how we'll use the Instructional Designer competency model in this activity)
- Identify the key steps in the process and the **timeline** for accomplishing them by October 31st
- Conclude with a **summary** of our recommendations and benefits

The approach we recommend is designed to be flexible to meet your needs now and as they evolve in the future.

We look forward to beginning our partnership with you — a partnership between organizations which share a common language and "like mind."

SITUATION ANALYSIS

The Performance Enhancement Organization provides courseware delivery and training consulting services for 12 disciplines within Bell Atlantic, covering a wide variety of knowledge and skill areas. Downsizing, staffing churn and the competitive environment have created the need to provide necessary skills and knowledge faster, with increased performance factors, and at reduced cost. The Performance Enhancement Organization is responsible for meeting these customer requirements by providing training in new ways.

Bell Atlantic has begun a process which will culminate in performance enhancement learning — learning which is close to the learner, is learner-driven, and which uses the most appropriate state-of-the-art technology available.

Performance enhancement training must be focused on improving behaviors which will ensure that Bell Atlantic Lines of Business (LOBs) effectively overcome competitive challenges. Since performance enhancement training is not a "one shot" intervention, learning should be highly interactive and integrated into the workplace wherever possible through structured, on-the-job, training and coaching by top-performing associates. Learning should also be supported by electronic tools. Ultimately, learners must know that accountability for learning rests with them, and that training tailored to their needs, as well as proactive management and peer support, is available to ensure their success.

"In the new environment, learning is tailored to individual needs. This begins with the building of job models based on skill and knowledge requirements and performance standards as defined and agreed to by the client. The skill and knowledge gaps identified set the priorities for the development of curricula, courses and support tools." *

The Competency Model Development Process is a key step in creating a performance enhancement system that links training and education to behaviors which generate measurable business results and achieve strategic business goals. The correct identification of job requirements based on business strategies and goals "feeds" the success of performance enhancement efforts.

* "Performance Enhancement: *Enabling Continuous, Measurable Performance Improvement for Bell Atlantic Employees,*" Bell Atlantic position paper, Fall, 1992.

SITUATION ANALYSIS (continued)

Effective utilization of the Competency Model Development Process will help Bell Atlantic's Performance Enhancement Organization effectively perform its four identified functions:

- **Client Interface,** including job performance models
- **Instructional Support Systems,** including instructional strategy, design and evaluating training effectiveness
- **Strategic Planning,** including aligning Performance Enhancement Organization resources with client business strategies
- **Administration,** including field product management

The results generated by the Performance Enhancement Organization will include significant reductions in operating expenses by 1994. Bell Atlantic results also include a payback for capital investment within the first year . . . an impressive achievement!

A core of instructional design professionals has responsibility for creating the performance enhancement learning system, including evaluation and measurement of learning results as a basis for continuous performance improvement.

To introduce the new performance enhancement training technologies, the Performance Enhancement Organization desires to expand the skills and knowledge resident on the core staff by utilizing ring instructional design resources. Bell Atlantic core resources will learn the Competency Model Development Process from ring professionals expert in this process.

Maritz is pleased to provide this expertise and . . . as we propose it . . . an on-the-job learning experience for your personnel charged with the responsibility and accountability for the success of the Competency Model Development Process.

Let's discuss our approach and why we believe that the development of competency models is integral to every component of your performance enhancement system.

We conduct our 5-phase approach to competency model development within a specific frame of reference, or context — we call this context the "voice of the customer."

THE "VOICE OF THE CUSTOMER" MODEL

This model provides the "big picture" frame of reference necessary to design individual performance enhancement interventions which meet customer needs and create measurable business results.

The model begins with **external customers** — and building-up internal systems which are "aligned" to meet the customers' needs and wants. Bell Atlantic's **business requirements** must successfully position Bell Atlantic as the best provider to meet customer needs and wants.

Customer requirements drive business requirements. Business requirements, then, must drive the **performance requirements** of those charged with meeting business and customer needs.

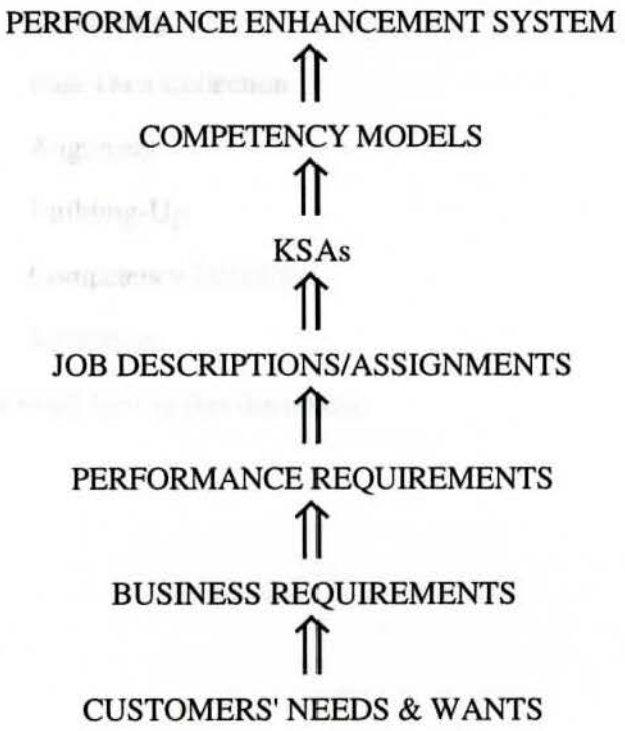
Performance requirements must be specific and measurable so performers know how well they are doing, and in what areas they need improvement. Performance requirements are organized into **job descriptions** or, increasingly, into **job assignments.** Job descriptions organize tasks into meaningful and effective "units" from an organizational *and* individual perspective.

Having described the job in terms of tasks, the next step is to identify the **knowledge, skills and attitudes (KSAs)** necessary to perform successfully.

KSAs provide the basis for identifying competencies required to do a specific job as well as the common competency requirements across jobs. Competencies apply within a job family or technical area of expertise found cross-functionally in the organization. **Competency models,** then, help train functionally (i.e., within job families) *and* cross-functionally (i.e., across job families) for the competencies shared in common.

Throughout this Competency Model Development Process, we have been considering and gathering information about the factors which impact the success of the **performance enhancement system,** including communication, information sharing, and feedback; involvement/decision making; and support of risk taking.

The "voice of the customer" is shown graphically on the following page. Note that the customer is the center, and that **all systems are aligned with, and built-up from, the customers' needs and wants.**



Maritz' recommendations integrate the "big picture" as well as the "individual performer's" perspective to reflect how the system elements relate to and impact each other. Ultimately, all efforts must support the performers in meeting customer needs and wants.

Next we'll describe the approach we use to accomplish the competency modeling requirement of the model.

OUR 5-PHASE APPROACH

We recommend 5 phases plus a set of organizing activities for the Competency Model Development Process:

- Phase 0 Organizing
- Phase I Base Data Collection
- Phase II Alignment
- Phase III Building-Up
- Phase IV Competency Definition
- Phase V Validation

These phases are described later in this document.

DIAGNOSTIC PATH

Before listing the tasks and task outputs envisioned for each major process step you've identified, a discussion of the research process is called for. We've learned that it's important to have a procedure, or path, that we follow to continually assess where we are, how we're doing, what we need to accomplish next, what methods are available for accomplishing it, selecting the most appropriate method (or methods), doing the field work, getting the information we need, interpreting the information . . . and starting this iterative loop again for the next major process step.

Maritz has used the diagnostic path presented here with much success. It helps the teams to continually ask questions, look for ways to refine and improve the process, suggest creative ways to proceed . . . literally, to "work" the process so that the process works for us!

The diagnostic process works like this. We begin each major step by **touching base.** This means that we usually have a meeting to discuss where we've been, what we've learned, where we're going, and how/when we're going to get there. We'll set goals, brainstorm options, decide which option(s)/method(s) we'll use, and set a plan for implementation.

Since the Competency Model Development Process is heavily-oriented to research and assessment, our next step in the diagnostic path is to **gather and assimilate** information. By touching base, we'll know what we need to know. We'll also know who will provide the information and/or how we will find it. Once we gather the information, we'll review it to determine if it's complete, accurate and appropriate for our needs. We'll ask ourselves the question, **"do we need to do further research?"** If yes, we'll do more field research.

If no — that is, if we're comfortable that the information we have is complete and accurate, we'll use it to **set goals** for the next step.

Based on our goals, we'll consider options for taking the next step. For example, let's say that our next step is to collect job environment information and our goal is to identify factors which support and hinder performance. This goal can be accomplished using one-on-one interviews, a mail-in survey, phone interviews, focus groups . . . or some combination of two or more of these methods. During this step, we'll **specify and select method(s)** to employ.

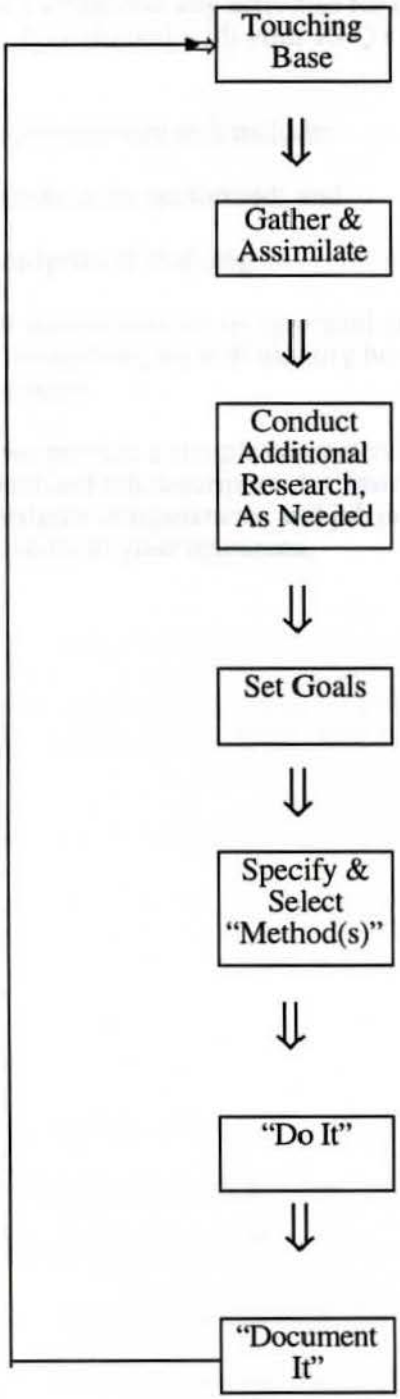
Once we've selected our methods, we go out and **"do it."** We implement the method(s) we've all agreed on. This activity generates new information.

DIAGNOSTIC PATH (continued)

Next, we **"document it."** The information generated by our activity, and often the implications we see and our recommendations for proceeding, are presented in document form to the appropriate team(s) and/or committee(s). The need to review this document before proceeding to the next major process step takes us back to the "top" of our diagnostic path because we'll need to **touch base** again to discuss where we've been, what we've learned, where we're going, and how/when we're going to get there.

The diagnostic path described above, and presented graphically on the following page, will help our Bell Atlantic/Maritz team update each other, discuss options, and make effective decisions.

DIAGNOSTIC PATH (continued)



BELL ATLANTIC COMPETENCY MODEL PROCESS

This section of our plan describes the key activities for the development and implementation of competency models. It is aligned with your RFQ's major process steps (e.g., 1.0, 2.0, etc.).

The description for each process step will include:

- A listing of the **tasks** to be performed; and
- A listing of the **outputs** of that step

The process steps begin with a step we recommend adding: **Phase 0 — Organizing.** Throughout the rest of this section, we will identify how our 5-phase approach "links up" with your major process steps.

Following this section, we provide a sample competency model and job description — Maritz' competency model and job description for Instructional Designers. We will discuss how the Instructional Designer competencies and job description will be used in transferring the process skills to your resources.

ORGANIZING — PHASE 0

An important activity to be conducted during phase 0 is creating the "partnership" approach we recommend for providing the outputs requested: Three competency models (Output 1.0); Bell Atlantic resources assigned to the process will be able to apply the process (Output 2.0).

We will create the Competency Model Team (CMT) so that Maritz Instructional Designers can work side-by-side with your assigned resources as "coaches." We'll assess your personnel's current expertise, develop a learning plan/work kit tailored to their needs, administer the learning plan/work kit, and provide on-the-job training. Both Output 1.0 and 2.0 will be generated effectively and efficiently using this approach.

Tasks and outputs are described below.

TASKS

- Organizing Session with Bell Atlantic/Maritz team — Baltimore
  - Maritz provides just-in-time training on the overall Competency Model Development Process and on Phase 0 for Bell Atlantic CMT members (defined below)
  - Planning activities for this phase
- Define our working relationship and your service expectations from Maritz (Maritz uses a "Customer Service Commitment" form to identify your service expectations. We will measure our performance with you at the mid-point and conclusion of the process.)
- Develop our team mission
- Define the scope, purpose, and plan of work (including timeline)
- Fill-in details for the development process
- Identify the core team, extended team(s), and advisory committee
- For Bell Atlantic resources who will learn this process:
  - Identify their time availability for learning this process; assign their role
  - Identify their current knowledge, skills and attitudes in the KSAs required for the Competency Model Development Process

ORGANIZING — PHASE 0

- Create the Competency Model Team (CMT) — a collaborative team of Maritz Instructional Designers and Bell Atlantic resources — by assigning a Maritz Instructional Designer to coach each Bell Atlantic resource
- Assign overall roles and responsibilities (if appropriate, develop a RACI model identifying for each task: who is "R"esponsible, "A"ccountable; who is "C"onsulted, "I"nformed)

OUTPUTS

- Maritz team documents: service expectations; team mission; scope, purpose and plan of work; teams/team members; committee(s)/committee members; roles and responsibilities; CMT assignments; and development process
- Maritz team prepares learning plan/work kit for Bell Atlantic CMT members assigned to learn this process (once plan is approved, it will be implemented)
- "Touch Base:" verify direction with the advisory committee

BASE DATA COLLECTION — PHASE I

1.0	Linking Bell Atlantic Line of Business (LOB) plans to performance requirements, including:
	1.1 Reviewing existing strategic and operational plans
	1.2 Identifying LOB measurements

TASKS

- Baseline Session with Bell Atlantic/Maritz team — Baltimore
  - Maritz provides just-in-time training on Phase I for Bell Atlantic CMT members
  - Planning activities for this phase
- Bell Atlantic provides documents for CMT to review; e.g.:
  - Organizational and functional charts
  - 5-Year Plan
  - LOB unit objectives (financial and operational)
  - Forecasting documents
  - Reengineering and restructuring documents
  - Marketing documents
    - .. LOB annual marketing plans
    - .. Competitive studies
    - .. Promotions and special programs; advertising
  - Customer satisfaction indices, by LOB
  - Publications
    - .. Annual Reports
    - .. Employee communications
    - .. Industry literature
- CMT reviews documents; talks with additional members of Bell Atlantic teams

BASE DATA COLLECTION — PHASE I

OUTPUTS

- CMT documents LOB measurements
- "Touch Base:" verify direction with the advisory committee

ALIGNMENT — PHASE II

2.0 Conducting a Performance Audit, including:

- 2.1 Reviewing and verifying job descriptions and core competencies
- 2.2 Evaluating the existing job environment
- 2.3 Reviewing job task analysis (for three positions; data is 24-months old)

TASKS

- Alignment Session with Bell Atlantic/Maritz team — Baltimore
  - Maritz provides just-in-time training on Phase II for Bell Atlantic CMT members
  - Planning activities for this phase
- Bell Atlantic provides documents for CMT to review; e.g.:
  - HR resource and allocation plans
  - Support strategies
  - Force strategies
  - Revised job descriptions for new and restructured jobs representative of job families
  - Prior job descriptions
  - Existing job analysis data
- CMT reviews documents; talks with additional members of Bell Atlantic teams

ALIGNMENT — PHASE II

- CMT develops a job environment interview questionnaire for 3 positions (to be answered by home office management during step 2.0; by job incumbents during step 3.0); content will address each Performance System element listed below and will solicit input regarding those factors which support or hinder performance:
  - Organizational structure
  - Communication, information sharing, and feedback
  - Involvement/decision making
  - Organizational performance measurements
  - Reward systems
  - Education/skills
  - Performance evaluation and accountability
  - Support of risk taking
  - Base compensation and benefits
- Bell Atlantic approves job environment questionnaire and identifies interviewees
- CMT conducts job environment interviews (one-to-one) with home office managers

OUTPUTS

- CMT documents findings
- "Touch Base:" verify direction with the advisory committee

BUILDING-UP — PHASE III

3.0 Developing Task Analysis, including:

- 3.1 Validating existing data
- 3.2 Collecting new data
- 3.3 Organizing data
- 3.4 Writing task statements
- 3.5 Verifying with field client

TASKS

- Building-Up Session for Task Analysis with Bell Atlantic/Maritz team — Baltimore
  - Maritz provides just-in-time training on Phase III, step 3.0, for Bell Atlantic CMT members
  - Planning activities for this phase, step 3.0
- Bell Atlantic provides existing data
- CMT develops task analysis questionnaires with observation sheets
  - Standard task analysis research questions concerning:
    .. Responsibilities
    .. Frequency/importance/difficulty of tasks and sub-tasks
  - Specific Bell Atlantic areas of inquiry
  - Job environment
  - Training/support needs
  - Performance standards
- Bell Atlantic approves questionnaires/observation sheets and schedules participants
- CMT validates existing data with expert panel — session in Baltimore
- CMT conducts task analysis interviews and observations with performers
- CMT organizes data each night into logical task groupings

BUILDING-UP — PHASE III

- CMT develops first drafts of task statements, including:
  - How tasks are to be accomplished
  - Equipment and materials used
  - Core skills and knowledge requirements
  - Pre-requisite skills and knowledge
  - Obstacles and/or supports to task performance
  - Measures of performance
- CMT verifies with field client; makes revisions

OUTPUTS

- Approved task statements
- "Touch Base:" verify direction with the advisory committee

BUILDING-UP — PHASE III

4.0 Developing job standards, including:

4.1 Identifying skills, knowledge and attitudes of master performers
4.2 Comparing and contrasting management input
4.3 Co-presenting Performance Standards to field client with Performance Enhancement Team

TASKS

- Building-Up Session for Job Standards with Bell Atlantic/Maritz team — Baltimore
  - Maritz provides just-in-time training on Phase III, step 4.0, for Bell Atlantic CMT members
  - Planning activities for this phase, step 4.0
- CMT, using task analysis information, develops/approves focus group protocols for identifying KSAs of master performers; identifies master performers and schedules participants
- CMT conducts a focus group to identify KSAs of master performers; documents findings
- CMT circulates findings to management for input
- CMT develops drafts of standards defining measures for successful performance
- CMT verifies drafts with expert panel; makes revisions
- CMT documents results

OUTPUTS

- Approved KSAs, standards and measurements
- Aggregate performance gaps
- "Touch Base:" verify direction with the advisory committee

COMPETENCY DEFINITION — PHASE IV
&
VALIDATION — PHASE V

5.0	Development of Competency Models, including:
5.1	Develop skill groupings
5.2	Match to job responsibilities
5.3	Write descriptors and define measurements
5.4	Validate with field client

TASKS

- Competency Definition and Validation Session with Bell Atlantic/Maritz team — Baltimore
  - Maritz provides just-in-time training on Phase IV and Phase V for Bell Atlantic CMT members
  - Planning activities for these phases
- CMT, using approved KSAs, standards and measurements, develops focus group protocols for identifying skill groupings and matching skill groupings to job responsibilities; identifies and schedules participants
- CMT conducts focus groups to identify skill groupings and match skill groupings to job responsibilities
- CMT reviews findings with expert panel; makes revisions
- CMT documents results

COMPETENCY DEFINITION — PHASE IV
&
VALIDATION — PHASE V

OUTPUTS

- Competency Model Report, documenting:
  - Project process
  - Three Competency Models, including:
    .. Tasks, standards and measurements of each job
    .. Supporting and hindering factors in the environment
    .. Areas of performance gaps
  - Learning path for Bell Atlantic Performance Enhancement resources (CMT members), including:
    .. Training provided
    .. Training results (performance mastery of process)
    .. Recommended next training steps
- "Touch Base:"
  - Determine next steps for continuous performance improvement with the advisory committee
  - Determine Maritz role in developing additional competency models for converted positions

SAMPLE — MARITZ INSTRUCTIONAL DESIGNER COMPETENCY MODEL & JOB DESCRIPTION

INTRODUCTION

Maritz' Instructional Designer competency model (and job description) provides a platform for the Maritz team to begin working with each CMT member so he/she can learn the Competency Model Development Process.

SAMPLE — MARITZ INSTRUCTIONAL DESIGNER COMPETENCY MODEL & JOB DESCRIPTION (continued)

INSTRUCTIONAL DESIGNER PROFESSIONAL COMPETENCIES

Professional competencies are organized into the following 10 areas:

- Professional knowledge *
- Ability to learn and analyze
- Adaptability and resourcefulness
- Creativity and innovation
- Judgment and decisiveness
- Performance planning and management
- Persuasiveness
- Process management and control
- Team orientation and management
- Written/oral communication

* Professional knowledge includes:

- Analyze characteristics of a (training) setting
- Assess relevant characteristics of learners/trainees
- Communicate effectively in visual, oral and written form
- Conduct a needs assessment
- Design instructional management system
- Design instructional materials
- Determine projects appropriate for instructional design
- Develop performance measurements
- Evaluate instruction/training
- Interact effectively with other people
- Perform job, task and/or content analysis
- Plan and monitor instructional design projects
- Promote use of instructional design
- Sequence performance objectives
- Specify instructional strategies
- Write statements of performance objectives

Appendix B features the descriptors of each instructional designer core competency (beginning with "ability to learn and analyze" from the above).

INSTRUCTIONAL DESIGNER JOB DESCRIPTION

The following job description is the Maritz job description for the Instructional Designer position.

Reports to: Director, Instructional Design

Mission:

Provide instructional design services of the highest quality, creativity, and value in support of proposal and sold program development to promote the growth, profitability and long-term development of Maritz Performance Improvement Company

Principal Accountabilities:

Develop new business with new or existing accounts by working effectively with account teams, participating in concept development meetings, providing ID strategies, and making client presentations.

Design and coordinate training projects by planning, researching, identifying instructional strategies, and making recommendations on the appropriate use of media to assure delivery of training solutions of the highest quality and value to clients.

Support project schedules by adhering to projected timeframes for completion of assigned tasks to ensure on-time delivery of ID products and services.

Control ID budgets on proposals and sold projects by monitoring allocated ID expenses to maximize profit margins and contribute to the overall profitability of Maritz Performance Improvement Company.

Provide accurate projections of ID services during proposal development to ensure fair pricing of products and services by adhering to budget guidelines.

Foster long-term relationships with internal and external clients by meeting client needs and exceeding client expectations, and by designing effective instruction.

Ensure delivery of high quality training products and services that are of exceptional value to clients by developing and applying new and innovative techniques/ strategies in instructional design to project work, and by keeping abreast of the field and profession.

Promote Maritz' products and services to enhance Maritz' stature as a performance improvement company by presenting at industry meetings and/or publishing in professional publications.

Develop high-quality contract and freelance researchers, designers and writers to enhance the quality of proposals and sold program materials by training, coaching and providing performance feedback to each project team member.

Contribute to the ongoing betterment of business operations and client services by participating in the continuous improvement process.

Scope of Position:

Years of Experience Required: 3 years in a like/similar position.

Supervisory Responsibility: Direct responsibility for writers and other creative/production staff on a project basis as assigned.

Budget Responsibility: Maintain ID budgets for proposals and sold programs on a project basis as assigned.

Sales Volume Accountability: None.

Gross Profit Margin Accountability: None.

Other Special Requirements: Background in creative/educational writing and concepting, training, education or a professional ID specialty.

Primary Responsibilities:

Design/Budgeting	70%
Creative/Sales Support	25%
Administrative	5%

Qualifications Required:

Bachelor's degree.

OUR APPROACH TO PARTNERING WITH YOUR RESOURCES

Our approach for "partnering" with your resources throughout the work process — the creation of the Competency Model Team (CMT) — is designed to transfer process skills to Bell Atlantic resources. At the conclusion of this process, each person will be able to apply the process of developing competency models on their own.

This approach is based on the competencies required to successfully perform the process. The instructional designer competencies and accompanying job description * provides the model to:

- Identify the competencies and KSAs required to perform the Competency Model Development Process; and
- Identify the current KSAs of Bell Atlantic resources assigned to learning this process

Based on this, we will:

- Develop a learning plan/work kit tailored to their needs, including:
  - A self-study workbook
  - A half-day session conducted by the Maritz Instructional Design team at the beginning of each major process step (note: actual session length to be determined)
  - Action planning and job aids for working with the Maritz "coach" to implement the Competency Model Development Process
- Administer the learning plan/work kit, utilizing just-in-time training for each major process step at the "start-up" of each step
- Provide on-the-job training by working with Bell Atlantic CMT members as "coaches" in the work to be done.

Working side-by-side with your assigned resources as "coaches," we believe that this CMT "partnership" approach will effectively and efficiently provide the outputs you've requested: three competency models (Output 1.0); and Bell Atlantic resources assigned to the process will be able to apply the process (Output 2.0).

Our approach and the specifications for transferring process skills to your personnel will be reviewed and finalized during phase 0.

* Bell Atlantic can expect to realize additional benefits because your proposed Performance Enhancement organization calls for functions such as "client interface" and "instructional support systems." Our Instructional Designer competencies may help you develop professional development plans for your personnel as well as screen/select ring resources for expertise as needed.

Critical Dates:

1.0	Issuance of RFP	by 06/15/93
2.0	Responses due to Bell Atlantic Purchasing	by 07/09/93
3.0	Presentation by Vendors	by 07/16/93
4.0	Completion of Three Competency Models	by 10/31/93

TASKS/DATES

	WEEKS														
ACTIVITIES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Project Kick-Off • Verify scope (5 job families) • Identify teams • Verify schedule	■														
Write/validate job descriptions		■	■	■											
Organize data gathering		■	■	■											
Conduct field work					■	■	■								
Write task analyses for new & priority jobs							■	■							
Review with Expert Panel									■						
Develop job standards & measures									■	■					
Write Competency Models											■				
Validate with Expert Panel												■			
Readiness & Rollout activities begin													■	→	→

CONCLUSION

Our recommendations — especially creating the CMT and providing an outstanding learning experience for your CMT personnel which includes *learning by doing* — will effectively and efficiently produce your desired results:

- A competency model, including:
  - Job tasks, standards and measurements
  - The identification of supporting and hindering factors to performance
  - Performance gaps (actual gaps and those gaps perceived to exist by management)
- Bell Atlantic resources who can apply the process of developing competency models

APPENDIX B

EVALUATION QUESTIONNAIRE
FOR CASE EVALUATION

COMPETENCY MODEL DEVELOPMENT METHOD:
CONSULTING COMPANY WITH
TELECOMMUNICATIONS CLIENT

INSTRUCTIONS:
Please complete this Evaluation Questionnaire electronically and email to skramer@uhc.com.

All questions are for evaluating the case study competency model development process cited in the title above, and enclosed in your Evaluator's Packet.

Please **bold** your response for each closed-ended question.

Insert your response for open-ended questions in the space provided.

Do not worry about "appearance" or "final formatting." This will be finalized at a later time.

If you have any questions, please contact Sharon Kramer by email (skramer@uhc.com) or by telephone at 314-230-9260 (residence) or 314-434-6114, extension 4007 (office).

QUESTIONS:

1. Did the case identify criterion measures of job performance (also referred to as job outputs criteria or standards; performance effectiveness criteria)?
   Yes No

   If yes, on a scale of 1 to 5, please rate how well the methodology used would ensure that criterion measures of job performance were valid and reliable.

1	2	3	4	5
Not Very Well				Very Well

2. Did the case process identify high performer characteristics, and use that data to select high performers?
Yes No

Please rate how important it is for this client to have high performer characteristics for successfully developing their competency models and using the models long-term.

1 2 3 4 5

Not Very Important — Very Important

Please offer at least three reasons for your rating:

1. _____
2. _____
3. _____
4. _____

3. Do you feel the case process should have included identifying both high and average performers, and conducting tests to statistically determine causal relationships between competencies and high versus low performers?
Yes No

Please offer at least three reasons for your rating:

1. _____
2. _____
3. _____
4. _____

4. Did the case process use Behavioral Event Interviews (BEIs)?
Yes No

Please rate how important it is for this client to include BEIs for successfully developing their competency models and using the models long-term.

1 2 3 4 5

Not Very Important — Very Important

Please offer at least three reasons for your rating:

1. _____
2. _____
3. _____
4. _____

5. The level to which the case identified knowledge and skill requirements for competency was appropriate.

Agree Disagree

Please offer at least three reasons for your rating:

1. _____
2. _____
3. _____
4. _____

6. Did the case methodology include process steps to address both "present state" and "future state" requirements?

   Yes No

   Please describe the appropriateness of the methodology being present or absent in meeting this client's needs.

OTHER QUESTIONS:

7. What do you see as the future of competency model usefulness to corporations? Please explain.

8. If you could give one or more tips to Human Resource Development (HRD) practitioners regarding competency model development, what would you say? Please explain.

Thank you very much for completing the Evaluation Questionnaire.

Please email to Sharon Kramer at skramer@uhc.com.

APPENDIX C

Sharon K. Kramer
101 Weis Avenue
Ellisville, Missouri 63011
(314) 230-9260 (residence)
(314) 454-6114 ext. 4007 (office)
skramer@uhc.com

March xx, 1998

Jackie Ray
Management Consultant
729 Coulter Ave.
St. Louis, Missouri 63122
rayjm@stlnet.com

Dear Jackie:

Thank you for agreeing to help me with my thesis paper. The purpose of my thesis paper is to review competency model development methods and use the information gained to evaluate an actual competency model development process implemented by a consulting company on behalf of its telecommunications client. Using the criteria outlined in my thesis chapters, please evaluate and comment on the competency model development project I have included.

Provided is Chapter I and II of my thesis for background information on competency model development methods. Although you are already familiar with competency models, I have attached my research for your review. An Evaluation Questionnaire is enclosed for your evaluation of the competency model development process. As we discussed, I will email the Evaluation Questionnaire to you, as well as providing you a copy in this packet. Please email your completed Evaluation Questionnaire by [date] to skramer@uhc.com.

After I have reviewed your completed Evaluation Questionnaire, I would like to conduct a 15- to 30-minute follow-up phone interview to clarify your comments and feedback on [date] beginning at [time]. I will call you to confirm this time or another time more convenient for you.

Thank you for your time and effort in assisting on my thesis project. Should you have any questions, please feel free to contact me at either number listed above.

Sincerely,

Sharon K. Kramer

Enclosures for Evaluator's Packet:

- Chapter I
- Chapter II
- Competency Model Development Process
- Evaluation Questionnaire

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